



**Social Enterprise-led Local Development of the Circular  
Economy: Socio-spatial Networks and Value-Impact  
Scaling Pathways**

being a thesis submitted in fulfilment of the  
requirements for the degree of

**Doctor of Philosophy**

in the University of Hull

by

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## Dedication

This thesis is dedicated to every single person who supported me on this PhD journey and especially to my beloved husband, Paweł.



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## Publications

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**Lekan, M.**, Jonas, A.E.G. & Deutz, P. (2021) Circularity as Alterity? Untangling Circuits of Value in the Social Enterprise-Led Local Development of the Circular Economy. *Economic Geography*, 97(3), 257-283. [DOI 10.1080/00130095.2021.1931109](https://doi.org/10.1080/00130095.2021.1931109)

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**Lekan, M.** & Rogers, H.A. (2020) Digitally-enabled diverse economies: exploring socially inclusive access to the circular economy in the city. *Urban Geography – Debates and Interventions*, 41(6), 898-901. [DOI 10.1080/02723638.2020.1796097](https://doi.org/10.1080/02723638.2020.1796097)

*Other PhD-related publications are underway.*

*On the 7<sup>th</sup> of October 2022 my surname changed from 'Lekan' to 'Pusz' as I got married.*

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## Abstract

The circular economy (CE) paradigm has emerged to challenge a predominantly linear economic development model by extracting and retaining the highest possible value from existing resources through their recirculation. While CE-related literature and policy discourse continue to grow, there is limited research on socio-spatial mechanisms shaping alternative circular economic development trajectories in the local development context. This thesis considers how the ecological and extraeconomic premises of CE thinking can be harnessed through mission-driven social enterprises (SEs) aimed at locally tackling poverty, inequality and/or waste. It investigates the extent to which 50 case study SEs operating in three different socio-spatial and institutional contexts (Hull, UK; Santiago, Chile; and Graz, Austria), and across diverse sectors (food, wood, textiles, housing, among others), stimulate and potentially could stimulate the development of a local and socially inclusive CE. In so doing, firstly, it untangles complex socio-material circuits of value and corresponding feedback loops associated with flows of (in)tangible resources across co-existing mainstream and alternative economic spaces of exchange, production and consumption. Secondly, this research adopts a Social Network Analysis approach to map and examine the broader *social circular enterprise ecosystem* in the City of Hull. It explores how the broader network constellations not only embody, but also could embody symbiotic relationships between environmentally-/CE-, socially- and/or commercially oriented enterprises to foster inclusive CE development. It then offers a heuristic framework illustrating the interplay of factors shaping collaborative ties in the development of inclusive CE. Finally, it explores diverse social-circular impact scaling strategies and develops an *Integrated Social-Circular Value-Impact Scaling* (ISCIRVIS) framework for academia and context-adaptable toolkit for entrepreneurs. The toolkit is designed to help entrepreneurs to create, deepen and/or broaden the scale and scope of environmental-circular, social and/or economic value outcomes/impacts associated with existing or implementable (circular) activities, yet in the light of potential costs/risks.

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## Abbreviations

<b>ABCD</b>	Asset-based community development approach
<b>B2B</b>	Business-to-business
<b>CE</b>	Circular economy
<b>CORFO</b>	Corporación de Fomento de la Producción (EN: The Production Development Corporation)
<b>CSI</b>	Circular social innovation
<b>CSR</b>	Corporate Social Responsibility
<b>DEFRA</b>	Department for Environment, Food & Rural Affairs
<b>ECO-WISE</b>	Ecologically oriented work-integration social enterprises
<b>EC</b>	European Commission
<b>EPR</b>	Extended Producer Responsibility
<b>EMS</b>	Environmental and Management Solutions
<b>FAO</b>	Food and Agriculture Organisation
<b>HCC</b>	Hull City Council
<b>HFP</b>	Hull Food Partnership
<b>HWR</b>	Humber Wood Recycling
<b>IDIA</b>	The International Development Innovation Alliance
<b>INE</b>	El Instituto Nacional de Estadísticas
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>RREUSE</b>	Reuse and Recycling European Union Social Enterprises
<b>RQ</b>	Research Question
<b>SE</b>	Social enterprise
<b>SIO</b>	Support infrastructure organization
<b>SNA</b>	Social Network Analysis
<b>UN</b>	United Nations
<b>UNEP</b>	United Nations Environment Programme
<b>VCSE</b>	Voluntary Community Sector Organizations
<b>WRAP</b>	The UK Waste & Resources Action Plan



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# Chapter 1 – Introduction<sup>1</sup>

## 1.1 Research Context and Questions

The global economy remains dominated by growth-driven modes of capitalist production and consumption, the extractive and profit-driven nature of which is broadly associated with climate change and high rates of ecosystem degradation that exceed the Earth's capacity to restore its finite resources (Rockström et al., 2009). Widespread concerns about the environment have encouraged researchers and practitioners to seek out new economic development models that could minimize corrosive environmental externalities linked to linear production models. One of the transformative paradigms that challenges the way mainstream economic development currently operates is the circular economy (CE). Although the definition of the CE is constantly evolving, it generally refers to regenerative practices whereby *“resource input and waste, emission, and energy leakage are minimised by slowing, closing, and narrowing material and energy loops through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling”* (Geissdoerfer et al., 2017:6). CE practices go beyond production-consumption paradigm of goods and services and, instead, view waste as a resource from which it is possible to extract the highest possible value through their recirculation. The CE has quickly gained traction among policy makers worldwide and especially the European Commission (EC), which is now recognized as a leader in CE policy making globally (Ellen MacArthur Foundation, n.d.) following the introduction of the CE Stakeholder Platform and an initial CE Package in 2014 (European Union, 2016). Globally, there is also a growing interest in applying the CE to diverse local economic development contexts in order to reduce the carbon footprint associated with the global circulation of material products and services both within and across the formal political boundaries of cities and regions (Bolger & Doyon, 2019).

Emerging from disciplines such as industrial ecology, business, and engineering (Korhonen et al., 2018), the principles and practices of the CE have typically been adopted by large private companies to reduce costs and realize competitive advantage by saving raw materials (Lacy & Rutqvist, 2016). Crucially, sociospatial aspects of the CE, such as human well-being, poverty, local community development, fairness and socially inclusive growth, tend to be overlooked in mainstream economic development practice and debates (Hobson & Lynch, 2016; Murray et al., 2017; Ranta et al., 2018; Schulz, et al., 2019). Consequently, research on the CE could

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<sup>1</sup> Parts of this chapter have appeared in *Economic Geography*: Lekan et al. (2021a).

benefit from interrogating power relations and norms that underlie efforts to (1) identify and upscale/expand alternatives to mainstream production systems and social relations in capitalism, and (2) address the root societal causes of the challenges that the CE is expected to tackle (Hobson & Lynch, 2016). This has implications for the local development of alternative CE-based solutions, which might be prone to co-optation by the notions of green capitalism and consumerism (Hobson, 2016). Overall, there is a growing need to understand how local transactions, social relations and circuits of value can be constructed around the CE in a manner that could (in)directly promote changes in linear economic systems and empower citizens to become active agents of sustainable economic development.

The research reported in this thesis forms part of a wider project funded by the EC, namely the [Cresting project \(Circular Economy: Sustainability Implications and Guiding Progress\)](#). More specifically, it contributes to one out of 5 research elements (Work Packages - WPs) of the Cresting project, namely WP4 'Capturing the Benefits of Circularity', which broadly examined the geographic and social distribution of the benefits associated with CE practices and its ecological and socio-economic implications to build more sustainable and inclusive places (see WP4 Policy brief by Deutz et al., 2021). The WP4 comprised four individual research projects and this thesis corresponds to research project 4.3, which aimed to 're-define the boundaries of the in/formal economies with the CE'. As the research progressed, the scope of WP4.3 was significantly broadened. The Cresting project was broadly situated within the critical realist framework, which incorporates both ontology and epistemology<sup>2</sup> - two branches of research philosophy helping to understand the nature of research. In general, critical realism helps to explain and analyse causal mechanisms behind specific activities or phenomena, knowledge of which can result in more informed policy making (Sayer, 2000; Fletcher, 2017). Critical realism provided the guiding ontology framing the adoption of an interpretivist approach and research methods (see 4.2).

The key focus of this research concerns organisations, which are broadly referred to as social enterprises (SEs). I argue that SEs are breeding grounds for CE-related creativity and offer much needed alternatives to mainstream organizations. SEs have an untapped potential to foster the development of a locally based and socially inclusive CE by reconciling economic, ecological (material) and extra-economic (social) premises of CE thinking and practice. In this research SEs are depicted as *circular alternative economic spaces in the making* whereby

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<sup>2</sup> While ontology aims to explain 'what exists/what things are', epistemology refers to our knowledge of reality: 'how do we know things?' (Goertz & Mahoney, 2012).

economic activity revolves around social-circular innovations that help to empower vulnerable individuals (e.g., by engaging prisoners, homeless or vulnerable youth in CE practices, including consumption of secondary subsistence goods), build community capacity, address poverty/social fractures, and respect ecological limits. Given that consumers increasingly seek ethically sourced and produced goods, yet policy makers are pressurized to implement policies that encourage social inclusion and greening of the economy (Bernauer & Caduff, 2004), many SEs in this research represent and embody “*a more ethical and socially inclusive capitalism*” (Dacin et al., 2011:3).

### Research Questions

The overarching aim of this research is to uncover a social dimension of the CE by investigating the extent to which SEs operating in three different socio-spatial and institutional contexts (Hull, UK; Santiago, Chile; and Graz, Austria) stimulate and potentially could stimulate the development of a local and socially inclusive CE. In so doing, it addresses the following two core research questions and associated sub-questions:

**1. What is the interplay of alternative and mainstream economic spaces in constructing and sustaining circuits of value for the SE-led local development of a socially inclusive CE?**

This thesis incorporates the concept of circuits of value (Lee, 2013) and *diverse circular economies*, the latter illustrating a mosaic of alternative and local circular forms of organizing that embody both for-profit and not-for-profit characteristics (Lekan & Rogers, 2020) in order to broadly untangle complex circuits of value associated with flows of tangible and intangible resources across co-existing mainstream (capitalist) and alternative (non-)capitalist economic spheres in the CE. Answering this research question entails investigation as to what extent SEs already incorporate CE thinking and practice into their mainstream activities.

**1.1 What are the broader institutional and socio-economic contexts in which SEs operate?**

Given that the underlying public, private and social institutional policies, regulations and norms shape (and are being shaped by) respective circuits of value in the CE, this thesis examines the broader institutional and socio-economic contexts in which SEs operate.

The research findings revolving around these two research questions enable to develop the broader typology of SEs engaged in CE practice and thinking (see conclusions in Chapter 5) and serve as a prelude to answering the next research question (RQ2).

**2. What is the capacity of different SEs to incorporate CE thinking into their products/services and/or expand/diffuse/replicate circular products and services in such a fashion that any social, circular-environmental and economic impacts are maximized yet also preserve their autonomy and social and/or environmental mission?**

The thesis outlines some of the key scaling strategies associated with respective case study SEs, and which underlie the *Integrated Social-Circular Value-Impact Scaling Framework*. It also draws upon **RQ1.1** because knowing and interrogating the broader institutional and socio-economic contexts in which SEs are embedded is important given that diffusing (social-circular) innovations is not as much about replicating the process as it is about adapting it to a given context. Besides, changes in policies and regulations at the national and international levels may impact scaling of CE activities and practices at the local (and not only) scale. Crucially, answering this research question additionally involves answering the subsequent research sub-questions:

**2.1 What are the internal (organization-specific) and external capabilities and assets/resources owned and/or potentially accessible by SEs to enable them to adopt and upscale CE thinking and practice?**

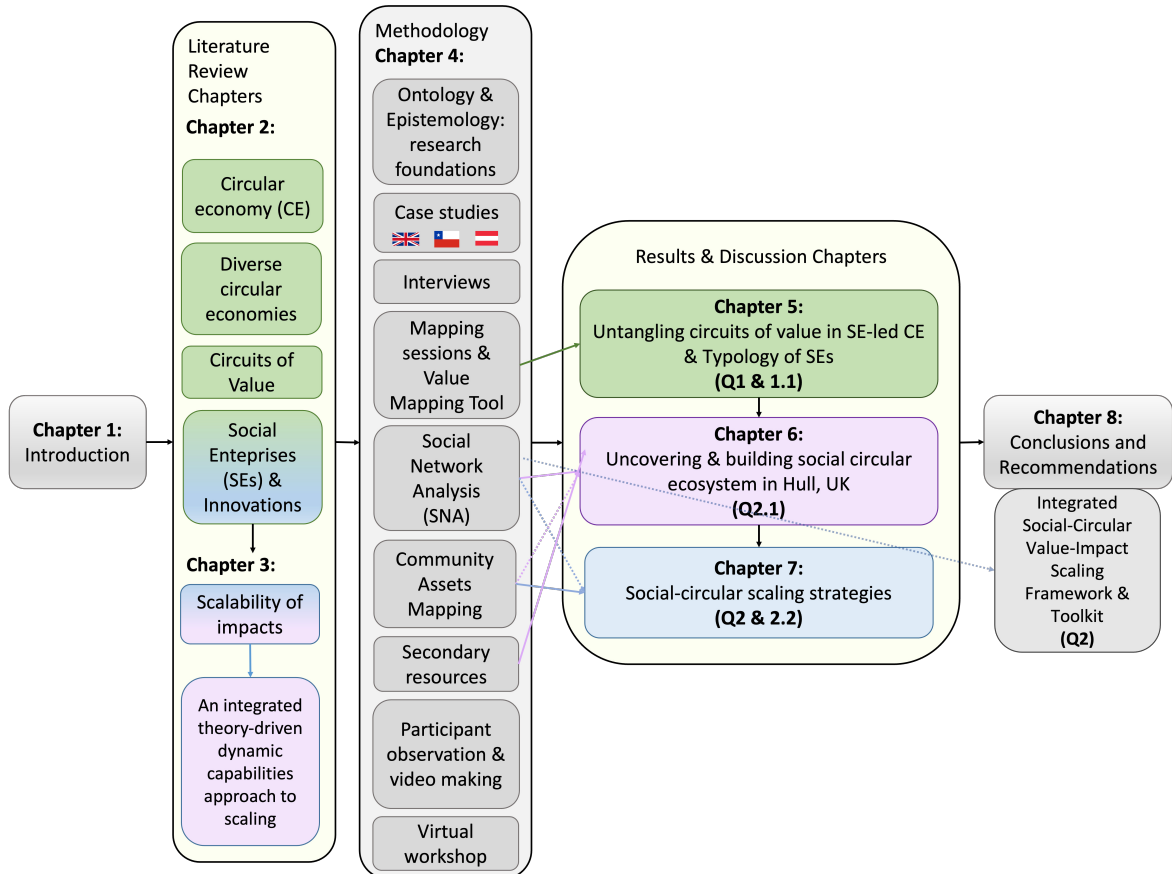
I examine how the capacities of SEs could be strengthened so that they could lead to the spillover of social and environmental benefits outside organizational boundaries. Given that access of SEs to relevant assets/resources (which are central to employing/scaling CE thinking and practice) is usually contingent upon extra-organizational SE networks/cross-sectoral partnerships, this research sub-question entails identification of vital cross-sectoral partnerships (cf. **RQ2.2**).

**2.2 What is the existing and potential role of extra-organisational linkages, forming the broader *social circular enterprise ecosystem* in the City of Hull (UK), in stimulating the local and SE-led development of the socially inclusive CE?**

This thesis investigates the broader *social circular enterprise ecosystem* in Hull (UK) in order to examine how SEs could build what Baker (2014) defined as ‘new pipes’ (i.e., connections facilitating or constraining flows of resources/assets and formation of social capital) and use those new or already existing pipes to develop new circular activities and/or upscale/diffuse already existing circular practices in the City of Hull (Chapter 6). Answering this question involves acknowledging the broader neighbourhood and institutional/socio-economic contexts (cf. **RQ1.1**).

## 1.2 Overview of Thesis Structure

Figure 1.1 below illustrates thesis structure, including any interlinkages between respective thesis chapters and sub-sections. Arrows in colours other than black highlight some of the most prominent links between adopted methods and respective discussion chapters.



**Figure 1.1 - Structure of the thesis**

After conducting an extensive review of the literature in Chapters 2 and 3, I argue that the current practice and discourse surrounding the CE could benefit from conjoining conceptual insights from the literatures on, respectively, alternative economic spaces or *diverse economies* (Gibson-Graham, 2006), social entrepreneurship, and network theory as well as social innovations and scalability thereof. Following a brief discussion of critical realism (Sayer, 1992), Chapter 4 explains and justifies the mixed methods adopted in the thesis. Using interviews, (social) mapping techniques and participant observation, I conducted intensive case studies of 50 social enterprises (SEs) operating in three different urban spatial contexts in three countries: Hull (UK), Santiago (Chile) and Graz (Austria).

Following the Literature Review and Methodology chapters, the remainder of the thesis comprises key four results and discussion chapters. The first results and discussion chapter – Chapter 5 – intends to untangle circuits of value – a concept originating in the literatures on diverse economic spaces (see Gibson-Graham, 2006, Chapter 2) in the SE-led local

development of the CE. While some scholars have already attempted to combine debates on the CE with the literature on alternative economic spaces (Hobson & Lynch, 2016; Holmes, 2018), integrating the concept of circuits of value into CE discourse and practice offers a new and socially oriented perspective on CE thinking. This is because the concept of circuits of value examines economic activities not so much through the lens of markets and monetary transactions, but instead in terms of the social desirability and intrinsic value of everyday economic and extra-economic/non-monetary transactions (Lee, 2013). It hence challenges individualistic market rationality and advances the knowledge on the complex nature of social relations shaping social and material flows of value - circuits of value - associated with CE-related ways of (co-)producing, consuming, (re)distributing and exchanging goods and services. Moreover, while mainstream/formal versus alternative/informal binaries have received considerable attention in academic circles (Basudeb et al., 2006), the inherently relational concept of circuits of value moves beyond such a simplistic taxonomic segmentation of economic activities into binary categories (cf. Samers & Pollard, 2010).

Understanding social relations shaping circuits of value, as well as the interaction of CE activities with mainstream circuits of capital, further enables me to examine a number of different social-circular value co-creation strategies for deepening and broadening the scale and scope of environmental, social and economic value outcomes/impacts associated with (circular) activities in particular places, or what I will call *impact scaling strategies*. In this thesis, this entails examination of network structures that underpin the local development of the *social circular enterprise ecosystem* in the City of Hull (UK) (Chapter 6), as well as cross-sectoral linkages between SEs and public, private and social sector organizations in three different spatial contexts under scrutiny (Chapter 7). In so doing, this research covers a significant gap in the CE literature by revealing mechanisms and processes linked to outcomes of value co-creation within multi-stakeholder systems, and the impacts of institutional structures on organizations engaged in the circulation and co-creation of value (cf. Kohtamäki & Rajala, 2016). Crucially, value is portrayed as a mediating variable between the broader (value) networks and scaling pathways, the latter guiding a transition toward a more socially inclusive CE.

By exploring what it takes for place-based SEs to improve and/or diversify their circular products and services, and/or employ CE practices and thinking into their mainstream activities (rather than internal, organizational processes) (Chapter 7), this research identifies a number of (internal/external) contingencies and capabilities behind respective CE scaling strategies (e.g., the capability to run a venture and form new partnerships). While the incorporation of CE thinking into the broader internal operational processes (e.g., running of a



given SE's premises, including production sites, that involves certain water, energy and rental costs), and which may have (in)direct implications for the performance of SEs and the sustainability of 'external' circular activities, these are not the key foci of this research. Rather, these are contingencies, which are on several occasions taken into account as they might influence the capacity of SEs to upscale and/or adopt CE thinking into their external activities, products and services.

This thesis contends that different SEs have different structures and capacities to adopt and advance CE thinking and practice in particular socio-spatial contexts. These spatially variegated structures and capacities raise important questions as to who is excluded from, or included in, SE-led local development trajectories of the CE in particular locations. Crucially, findings from different spatial and institutional contexts enable the researcher to corroborate research findings across diverse contexts and expose interdependencies of and between different places. Such a multi-case study approach also serves to cross-fertilize novel ideas (e.g., regarding goods and services) across space and time so that innovation could be injected into communities in most need of socially circular resources and flows. The multiplicity and diversity of SEs additionally enables to identify examples of good practice in particular spatial-social and temporal contexts.

In seeking to fill a gap in current CE research, this research develops and proposes four novel heuristic frameworks for analysing the local development of a socially inclusive CE. The first framework depicts resource flows across the mainstream and alternative economic spheres (Figure 2.3, Literature Review). The second framework (Figure 5.1, Chapter 5) helps to investigate the role of diverse circuits of value in shaping alternative pathways for the local development of the CE. The subsequent framework illustrates the interplay of various factors shaping collaborative ties in the development of inclusive CE in the context of the City of Hull (Figure 6.4, Chapter 6). The final framework - an *Integrated Social-Circular Value-Impact Scaling Framework* (Figure 8.1, Chapter 8) - is built upon research findings from across all the case study SEs and is designed to assist entrepreneurs in 'developmental evaluation' (Patton, 2010), helping them to identify circularity at the organizational level (particularly in terms of the products and services they offer) and presenting different pathways for implementing and/or upscaling CE practices. This framework is complemented with a practical Toolkit for entrepreneurs, which is designed to help entrepreneurs to make more informed decisions in otherwise obscure, complex, and uncertain environments (8.3; Appendix 8).

## Chapter 2 – Circular Economy and Social Enterprises: Concepts, Policies and the Local Development Context<sup>3</sup>

### 2.1 Introduction

This chapter critically reviews the literature on the concept of the circular economy (CE) by presenting it as a response to complex global challenges, which have repercussions at local scales. It then briefly explores recent governance and policy developments in the field of the CE in the EU, UK and Latin America, highlighting the variegated CE policy landscape in, respectively, Austria (the region of Styria), the UK (Yorkshire and Humberside), and Chile (Santiago). This review of the governance and policy literature serves as a prelude to a more in-depth analysis of respective institutional/regulatory contexts in the context of country- and place-specific case studies.

Subsequent sections of this chapter explore the emerging literature on the CE as a local development strategy. These sections draw upon diverse economics literature and related discussions of the concept of circuits of value. The final section explores the social ecology of the CE, focussing upon social enterprises (SEs) as breeding grounds for social circular innovations at the local level. The conclusion summarises some of the key concepts which are deployed in the empirical research to investigate hitherto hidden socio-spatial mechanisms shaping diverse circular economic development trajectories in particular places.

### 2.2 Circular Economy: An Overview

CE challenges the traditional linear economic development model by extracting the highest possible value from resources through their recirculation, thereby viewing waste as a resource and going beyond production-consumption paradigm of goods and services (Geissdoerfer et al., 2017). While the CE concept cannot be traced back to one single date or author, the idea of circularity is reflected in the mid-eighteenth-century work of François Quesnay who investigated the circular flows of income, expenditure and output across different sectors of the economy in *Tableau économique* (1759) (Bauer, 1895) Quesnay's work illustrated how households are engaged in wealth circulation by providing the firms producing goods and services with means of production (i.e., labour, land, capital), thus enabling expenditure through consumption and investment. These interpretative models paved the way towards novel approaches to modern economic thought such as input-output theory (Leontief, 1966). It

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<sup>3</sup> Parts of this chapter (especially sections 2.2, 2.5 and 2.6) have appeared in *Economic Geography*: Lekan et al. (2021a).

was not, however, until Rachel Carson's *Silent Spring* (1962), Meadow's et al.'s *Limits to Growth*, or Boulding (1966) who proposed the concept of closed systems upon foreseeing an economy running on limited stock of inputs and recirculated outputs, that led scholars such as Pearce and Turner (1990) to formally adopt the CE term in an economic model (Winans et al., 2017). A growing body of literature in the subsequent decades has primarily positioned the CE within the fields of ecological and environmental economics and industrial ecology, which recognize the relationship between the economy and the environment (Ghisellini et al., 2016; Murray et al., 2017). Shaped and refined by theories such as biomimicry (Benyus, 1997), cradle-to-cradle (McDonough & Braungart, 2010), industrial symbiosis (Cecchin et al., 2020), the CE concept goes beyond 3Rs, i.e., reuse, reduce and recycle. Reike et al. (2018), in fact, proposed a 9R typology, which consists of eight reutilization options and two waste prevention options for consumers and businesses (see Figure 2.1 below). By using the term of 'value retention', they referred to the capacity of resources to carry an intrinsic value, which enables such resources to pursue new lives. Reike et al. (2018) also distinguished between short loops (where product remains close to its user and function), medium long loops (where products are upgraded and producers are again involved), and long loops (where products lose their original function) (2018:10). Interestingly, Bocken et al., (2016) argued that resource-efficiency and reduction of resources or elimination of toxic waste (R0 and R1) should not be understood as CE principles as they are not concerned with material flows per se. They contended that principles related to R0 and R1 should be, instead, jointly associated with other Rs such as reuse (R2), repair (R3) or remanufacturing (R5), which aim to close or slow resource loops. By specifically referring to the reduction of the speed of resource flows, it is eco-design and reuse that can significantly slow resource loops by tackling obsolescence (Stahel, 1998).

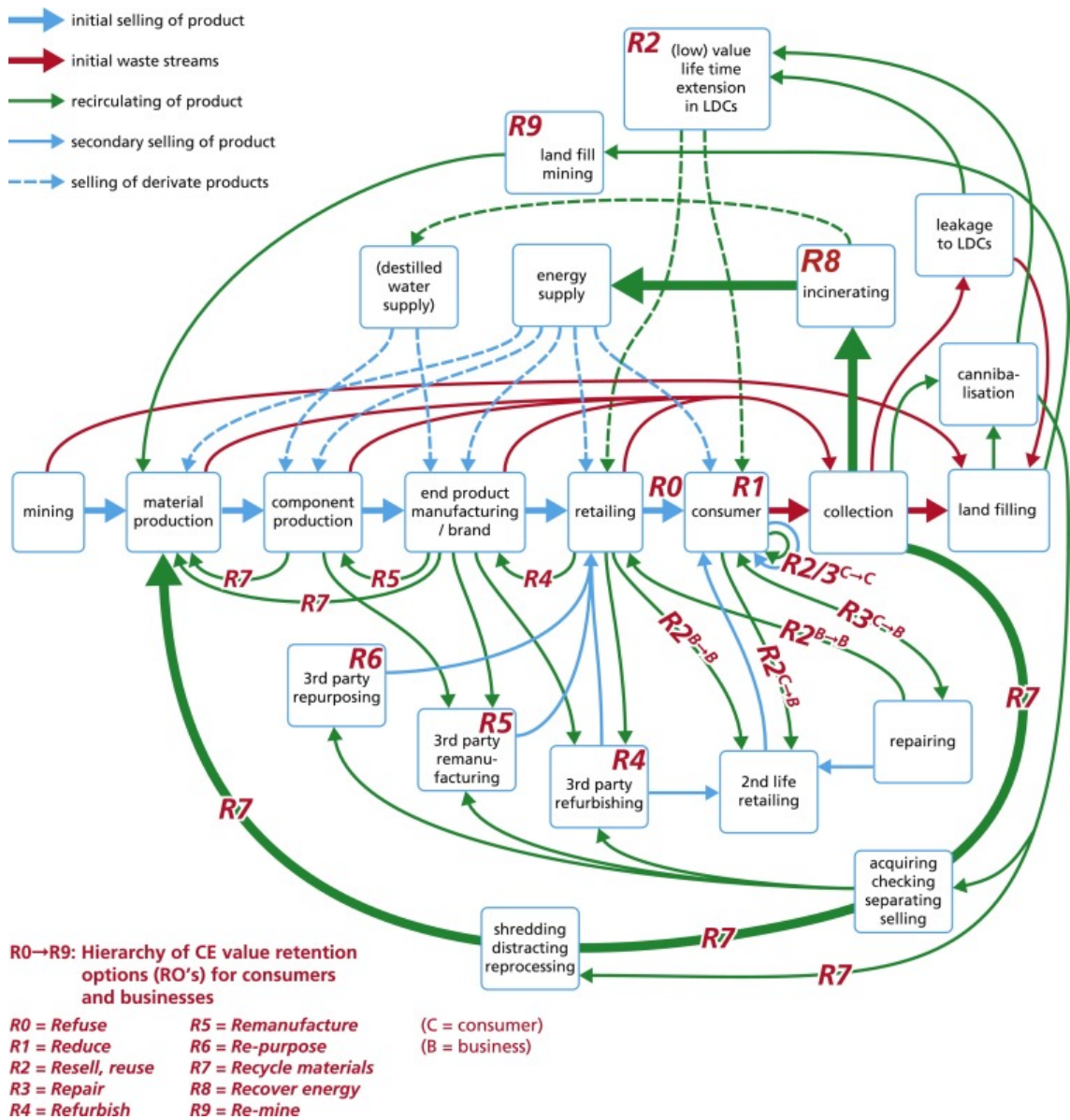


Figure 2.1 - Mapping Circular Economy Retention Options: The Product Produce and Use Life Cycle

Source: Figure 3 in Reike et al. (2018:258)

CE principles are reflected in circular business models incorporating the following circularity concepts and practices:

- (1) **Dematerialisation:** reduction of the amount of resources required to create products through digitisation, on-demand production (made to order) and a move to reusable products.
- (2) **Circular inputs:** the using of renewables (e.g., solar energy), fully biodegradable (e.g., untreated wood), sustainable and/or fully recyclable resources for production.
- (3) **Product life extension:** extending the life of products through design for durability, design for modularity (e.g., manufacturing for repair), maintenance and repair, reuse, reconditioning, refurbishment, remanufacture, repurpose, and part harvesting.

Product life extension also involves practices such as upcycling. Originating from the work on closing material loops by McDonough and Braungardt in the 1990s, the concept of 'upcycling' is often associated with CE practices as it is seen as an intervention helping to reduce material and energy use (Caldera et al., 2020). Essentially, upcycling involves reusing, repairing, repurposing and upgrading waste material to avoid the conventional endpoint of 'disposal'. However, upcycling is still considered a niche practice and many business enterprises remain unclear as to how to use upcycling opportunities for better management of their waste. Overall, by achieving longer-lasting products, it is possible to decrease their cost over a lifetime.

- (4) **Resource recovery** through recycling, bio-chemical extraction, anaerobic digestion and composting. However, Skene (2018) warned against the consideration of biological cycles as nontoxic by noting that recycling of biological nutrients needs to occur at a rate and tempo that is aligned with the natural cycles in order to significantly reduce any possibility of toxic events.
- (5) **Product as a service or Product Service System** (includes **Sharing Economy**) comprises leasing, performance-based payment (pay for success), sharing resources and peer to peer lending. Sharing and collaborative models help to extend the product's life by maximizing its utilization. In this way they reflect the principle R1 (reduce) and R2 (reuse) as they help to reduce consumption and help to maintain product's integrity for reutilisation in addition to retaining embedded energy and labour. By sharing space, stuff, skills and services (for example in makerspaces), it is also possible to contribute to 'dematerialisation' (Social Circular Economy, 2017:4-5).

By promoting the use of renewable energy and eliminating the use of toxic chemicals and waste through eco-design and circular business models, CE is presented as *"an industrial system that is restorative and regenerative by intention and design"* (World Economic Forum, 2014:13). Crucially, apart from environmental benefits, circular business models are predicted to offer new and decent employment opportunities whereby human labour is highly valued. For example, The UK Waste & Resources Action Plan (WRAP) (2015) estimated that expansion of the CE has the potential to reduce unemployment by around 250,000 to 520,000 and create up to 3 million jobs in Europe, both low skilled and high skilled.

### 2.2.1 Circular Economy: The Missing Socio-spatial Dimension

While CE has received a lot of attention in the broad field of industrial transformations and business development (Korhonen et al., 2018), the current discourse primarily refers to physical and resource-related economic dimension of CE. In comparison, social aspects of the

CE, such as mental and social well-being, demand further investigation (Hobson & Lynch, 2016; Murray et al., 2017; Ranta et al., 2018; Mies & Gold, 2021). As currently framed, research on the CE does not significantly question the power relations and capital-centric norms that underlie efforts to identify alternatives to mainstream production systems and social relations in capitalism, the latter being inherently spatial (Gibson-Graham, 2006). In a similar fashion, Hobson & Lynch (2016) contend that the mainstream literature on CE does not directly address the root causes of the pressing socio-environmental challenges. They noted that while the EC and leading global companies have begun to incorporate CE principles into their strategic plans, their approaches are not radical enough to truly challenge and transform the prevailing paradigms, especially with regards to consumption patterns. And yet, the adoption of CE thinking among companies remains primarily motivated by cost savings and achievement of competitive advantage rather than out of purely environmental premises (Lacy & Rutqvist, 2016). The current 'circular' solutions thus tend to revolve around 'win-win' scenarios that do not question the status quo, provide weak policy tools, and are often subject to co-optation by the notions of green capitalism and consumerism (Dauvergne & LeBaron, 2012). In other words, and similarly to conceptualizations of 'green' or 'low carbon economy', the CE concept (which Savini (2019:678) depicted as a new *"regime of capitalist eco-accumulation"* whereby waste is the primary production and consumption input), does not seem to address the issue of growing consumption and associated rebound effects (Zink & Geyer, 2017).

In terms of social aspects of the CE, Rizos et al. (2017) highlight that there is limited information on aspects such as *"gender, skills, occupational and welfare effects, poverty and inequalities"* (p. 25). In a similar fashion, Murray et al. (2017:376) note that, *"key social equality aspects such as gender, racial and financial equality, inter- and intra-generational equity and equality of social opportunities are [still] often absent in the existing conceptualizations of the circular economy"*. Kirchherr et al. (2017) also underline that there is still a lot of room to employ a social justice perspective in the current CE discourse. Given that CE has been reported as a lever to the realization of Sustainable Development Goals (SDGs), which include SDG 12 on *responsible consumption & production*, SDG 5 on the need to *achieve gender equality and empower all women and girls*, and SDG 10 about reduction of inequalities (Rodríguez-Antón et al., 2019), placing more emphasis on investigating these aspects is even more important. Linked to this, there is a growing consensus, at least in academic circles, that the transition from the current linear to a truly sustainable CE should be inclusive and collaborative (Schröder et al., 2020a), whereby *"technological, organizational and social innovations should mainstream the gender perspective and the ethic of care"* (Pla-Julián, 2019:67).

Interestingly, Skene (2018) highlighted the need to employ *bio-participation* (perceived as strong sustainability) rather than biomimicry (regarded as weak sustainability) when exploring pathways for sustainable CE development in particular contexts. While biomimicry is about emulating knowledge about the systems and components of nature to solve complex problems facing humanity, and hence applying those ideas into new contexts, *bio-participation* is about *“re-integrating humans within the biosphere system (...) where participation rather than knowledge transfer ensures deeper symbiosis”* (Benyus, 1997:488) in a given context. In advocating the need to focus on participation when fostering synergies for sustainable circularity, Skene (2018) placed emphasis on the fact that biosphere is an emergent, ever-evolving system, which should be studied through non-reductionist, multilevel lens.

Overall, CE has an unlocked potential to foster *“loops of care for people and environment”* (Pla-Julián, 2019:67) via relevant strategies, policies and interventions. Apart from CE-related benefits for *people, planet and prosperity*, there is also a wide window of opportunity to explore two other pillars of sustainability, namely culture, i.e., *“cultural well-being through intercultural dialogue”* and security understood as *“peace and sustainable stability”* (Brevar & Bertoneclj (2016:244). Studying such broader socio-economic systems and recognizing aspects such wider cultural beliefs, all of which impact and evolve with security changes, is important when designing transition pathways towards more circular societies. This research thus investigates all these pillars through the lens of the CE and, more specifically, in the context of the SE-led local development of the CE.

### 2.2.2 Circular Economy: Zero Waste?

The concept of zero waste is used by many CE protagonists as a central plank to the overall CE concept (cf. Preston, 2012). It is often based on the premise that, just as there is nearly no waste and almost everything is re-used in the natural environment, the novel economic systems should promote such circular cycles through waste reprocessing/reutilization and be rooted in the study of nonlinear, living systems. Nonetheless, such notions, including Boulding’s (1966) ‘Earth as spaceship’ metaphor, should be contested given that nature is dynamic, emergent and old forms are constantly being replaced by the new ones. As Skene (2018:488) noted, CE is not likely to create a foundation for a sustainable future as it *“works against both the laws of thermodynamics and the underpinning principles of nature”*. This is because *“in thermodynamic terms, the Earth is an open system and bears no similarity to any concept of spaceship Earth, closed loop nor circularity. Rather there is a massive flow of energy through the planet, and life works to convert free energy to waste energy, under the auspices of the second law of thermodynamics”* (page 486). Following the law of thermodynamics, any increasing complexity requires increasing waste, ergo disorder, which is always associated with

any activity on Earth, be it an activity that is related to growth or maintenance. Moreover, there is 'wasted energy' associated with activities such as recycling, and which is rarely taken into account in ecological footprint assessments. In short, justifying zero-waste or circularity understood as optimization and eco-efficiency by referring to the natural world is conceptually inadequate and it is important to account for any emergent complexities when examining the sustainability of CE practices.

### 2.3 Circular Economy as a Response to Particular Global Challenges

Transformation of the linear metabolism of materials into a circular one, whereby the quality of materials stocks is improved or retained, is at the core of the CE thinking. CE is thus viewed as a solution to pressing environmental challenges associated with depletion of increasingly scarce resources. Such challenges are entangled with other dilemmas facing humanity such as rising costs of production and goods. Many of these global challenges are 'wicked' in that they are so complex and interconnected that there is no one single solution to them in the world full of uncertainty, paradoxes and contradictions. Many solutions to such wicked problems, in fact, often generate new problems that require further solutions (Schuhmacher, 1973). This section examines how CE has come to be regarded as one of the missing puzzles helping to address some of the wicked problems associated with the following waste streams: (1) food waste; (2) wood waste; (3) textile waste; (4) plastic waste; and (5) housing and construction waste.

#### 2.3.1 Food Waste and Food insecurity

The combined effects of rising incomes, resource scarcity and environmental contamination are greatly manifested in the contemporary food system, where food insecurity and food waste occurring throughout the supply chain constitute significant global challenges (Miroso et al., 2016). According to the Food and Agriculture Organisation (FAO), between 720 and 811 million people worldwide could not afford and/or access food to meet their daily dietary needs in 2020 (FAO, 2021). Although half of the wasted food would be sufficient to feed every individual in the world, food insecurity has been largely attributed to unequal distribution of income and goods within an increasingly consumerist and globalized society that has indirectly led to the increase in food production and amounts of unconsumed food (Miroso et al., 2016). The phenomenon whereby people cannot obtain nutritious food due to lack of knowledge, skills, enough income, or limited time, convenience and access to markets, is referred to as food poverty (O'Connor et al, 2016). Food poverty usually occurs at the expense of other essential activities and expenditures such as energy bills, thereby often going hand in hand with fuel poverty. Areas that lack food stores, particularly those selling fresh and healthy food products are, in turn, commonly denoted as 'food deserts' (Corfe, 2018) Food poverty and



food deserts have severe implications for social well-being and local economic development in both low-income and high-income countries (Loopstra & Tarasuk, 2013). It is widely known that individuals who cannot afford healthy and nutritious food on regular basis are more likely to suffer from stress, depression, anxiety, erosion of community spaces and social networks, de-skilling, obesity and associated cardiovascular diseases and diabetes (Harrington et al., 2009; Mental Health Foundation, 2017; Blake, 2019). It is estimated that mental disorders alone are likely to cost the global economy \$16 trillion by 2030 (Patel et al., 2018).

Paradoxically, while over 800 million people suffer from food insecurity worldwide (FAO, 2021), a report by FAO generated in 2011 estimated that *“roughly one-third of the edible parts of food produced for human consumption, gets lost or wasted globally, which is about 1.3 billion ton per year”* (Gustavsson, et al., 2011:56). And yet, according to United Nations Environment Programme (UNEP), food waste at consumer level (household and food service) appears to be more than twice the previous FAO estimate (2021a). This problem is largely driven by increased consumerism coupled with expansion of urban centres, proliferation of modern retail stores with ready meals for immediate consumption (whose expiry date is short and hence the food is wasted if left unconsumed), and rising global demand for food (Jurgilevich et al., 2016). Contemporary food systems also usually follow the linear model of ‘take-make-dispose’ that fails to attach a social/environmental/economic value to ‘waste’ (Borrello et al., 2016).

CE in the food sector primarily concerns: prevention of food waste; food reuse/recovery; food redistribution/sharing through charitable organisations; use of food by-products; and nutrient recycling via composting or more technologically advanced options such as anaerobic digestion (Jurgilevich et al., 2016). However, although anaerobic digestion creates an economic opportunity, generates energy and helps to manage waste that cannot be easily decomposed, it can be socially and morally challenging. In addition to high costs of transportation and operation, anaerobic digestion addresses only end-of-life stage of a food product (thus increasing ‘energetic waste’) and does not help to eradicate food insecurity (Xu et al., 2018; Pham et al., 2015). Moreover, when surplus food is not segregated, and thus ends up in landfills rather than anaerobic digestion or composting, methane (a greenhouse gas) is released, land is wasted and soil and water are exposed to contamination (Gupta et al., 2018).

Overall, the problems of food waste and food surplus reflect deep structural inequalities, which deserve more attention in the CE discourse. By adopting the broader socio-economic perspective and exploring SE-driven social-circular innovations in the food sector, this research

addresses under-investigated social dimension in the CE, and more specifically SDG 2 aiming to achieve zero hunger (Schröder, 2020).

#### *Food waste and Food poverty in the UK*

The dual problem of food poverty and food waste is significant and mounting in the United Kingdom, the 7th largest economy globally (International Monetary Fund, 2018). According to Department for Environment, Food & Rural Affairs (DEFRA), 2.2 million people living in the UK suffered from food insecurity in 2020, an issue being significantly aggravated by the outbreak of COVID-19 (2021a). It is also estimated that 9.5 million tonnes of food worth over £19 billion a year is wasted across the entire food supply chain surrounding households (85% of total food waste), hospitality & food service, food manufacture, retail and wholesale sectors in 2018 (WRAP, 2020). More importantly, approximately 250,000 tonnes of food wasted in the supply chain (of which retail waste constitutes 47,000-110,000 tonnes) is still edible (WRAP, 2018).

Anaerobic digestion, viewed as a way of tackling food waste in the UK, has been supported by the British government. According to Bio Controllers, *“anaerobic digestion has been widely accepted as the ‘greenest’ method of recycling unavoidable food waste”* (DEFRA, 2017). A more socially oriented solution to food waste, which represents circular economic thinking, concerns food recovery through food donations. For example, FareShare, the UK’s largest food redistribution charity, reported that it redistributed 36.7 million rescued and donated meals to charities and community organisations in the UK in 2017/18; whilst helping to nourish the poor, saving the charity sector £28.7 million and contributing to the UK economy nearly £51 million in 2017/18 (FareShare, 2018). However, charities such as The Trussell Trust Food Bank in the UK seem to be preoccupied with the possibility of further institutionalization of increasingly popular food banks as they do not solve the issue of food surpluses and insecurity (2016). The Trussell Trust (2016) instead calls for a collective action undertaken by the government, voluntary sector, businesses and the public to tackle food security in the country. Nonetheless, it leaves no doubt that food recovery initiatives represent CE thinking and do help to mitigate the negative socio-economic impacts associated with food insecurity and food waste. They also contribute towards a more equitable societal and community development whilst longer term solutions to the ongoing challenges are sought.

#### **2.3.2 Wood waste**

Wood is an underestimated urban resource, yet it is ubiquitously used in a wide range of applications such as particleboard, the building industry, furniture, paper and packaging or as an energy source. It is predicted that the demand for wood products will continue to increase worldwide. However, as such increased demand is a major cause of destruction of tropical

forests, there is a need not only for sustainable forest management, but also for sustainable use of wood resources (Elias, 2014). Consequently, one of the top strategic objectives and research areas in Europe concerns improvement of availability and optimization of the use of forest biomass from processing and end-of-life products. It is becoming increasingly recognized that reclaimed wood serves as a high-volume resource for recycled products (Hoefnagels et al., 2017). CE in the wood sector concerns procurement of sustainable wood (be it imported or domestically sourced). The type of the end-of-life of wood waste treatment depends on the composition of waste, which can be contaminated with metals, glue or preservatives. The commonly applied options include recycling into particleboard, mulch, compost or animal bedding depending on the level of contamination; reuse; incineration, which can cause toxic fumes through combustion processes; and energy recovery. Another option is wood landfilling, yet in several countries, including the EU, bans and extra taxes have been introduced for those companies and households that dispose wood waste in landfills (EC, 2018a). This partially stems from the fact that wood landfill contributes to methane emissions. A study on Life Cycle Assessment (LCA) by Petersen & Solberg (2005), who compared the environmental impacts of substitution between wood and alternative materials (concrete and steel) in the construction sector, revealed that wood has lower environmental footprint in terms of its contribution to global warming. This is because production processes of steel and cement contribute to large amounts of carbon dioxide emissions to the atmosphere when compared to tree growing for wood resources, whereby trees act as net sinks of carbon dioxide (that is essential for their growth). Overall, an analysis of various LCAs of the environmental impact of wood products concluded that while wood incineration with energy recovery generates energy, recycling of wood waste is more beneficial when it comes to addressing climate change (WRAP, 2010). However, the rate of wood recycling remains relatively low when compared to other types of waste such as metals (Daian & Ozarska, 2009).

#### *Wood waste in the UK*

The majority of wood waste in the UK comes from the construction and demolition sectors. These two sectors altogether with manufacturing and wood processing sectors account up to 4.5 million tonnes of wood waste in 2020 (Community Wood Recycling, 2022). Wood waste also comes from wood pallets and wooden packaging, as well as municipal wood waste such as broken furniture (Tolvik Consulting, 2011). The wood in the domestic waste stream usually ends up in household waste recycling centres or civic amenities from where it is transported to landfills, incinerators or wood recyclers. Given that this type of waste is usually treated with preservative or painted, it has the lowest quality among various types of wood wastes. Similarly, the key challenge concerning wood waste from construction sites is its diversified

structure that might include bits of laminated chipboard, metals, glass, plastic, rubber, broken pallets or preservative-treated off-cuts, making it difficult to recycle conventionally. On the other hand, around 4 million tonnes of waste wood were recycled in the UK and around 26% of it is used in the manufacture of composite sheet materials (Community Wood Recycling, 2022).

### 2.3.3 Textile waste

The textile industry has been recognized as one of the most polluting industries globally. It is estimated that approximately 85% of textiles are landfilled on annual basis, meaning that around 4% of the land is covered in textile 'waste'. In addition to that, textiles release nearly half a million tons of polluting plastic microfibers to waters after every wash (Rahman & Amin, 2017), yet the fashion industry is responsible for around 8-10% of global carbon emissions (Sadowski et al., 2021). In response to these challenges CE offers a novel approach to transforming production, consumption and disposal of textiles through a number of activities that largely remain underdeveloped. They include rental and leasing (access-based business model), collecting for (re-)selling/buying second-hand/reusing; repairing and DIY; recycling and upcycling (including making handcrafts); eco-design for biodegradability (cf. 2.3.4), longevity and durability (Staicu & Pop, 2018). Interestingly, the textiles sector is recognized by the 2020 Circular Economy Action Plan as a priority product value chain due to its high usage of resources (e.g., water, land, toxic substances) and large amounts of generated waste (EC, 2020; European Environment Agency, 2021).

### 2.3.4 Plastic waste

Another waste stream, which increased from 2.3 million tons in 1950 to 448 million tons by 2015 and is expected to double by 2050, concerns plastic waste (Richie & Roser, 2022). Plastic waste has detrimental effect on the environment and all living beings; for example, it has been found that microplastics were found in human blood and may lodge in organs, most likely causing damage to human cells (Leslie et al., 2022). Primary sectors producing the highest amount of plastics in 2015 concern packaging (146 million tonnes), building and construction (65 million tonnes), textiles (59 million tonnes). Crucially, plastic production has become a global industry value at \$552.6 billion (UN, 2022) and only 9% of plastic is recycled (Organisation for Economic Co-operation and Development - OECD, 2022). The gravity of the issue prompted representatives from 173 countries to gather in 2022 at the United Nations (UN) summit in order to call for a treaty to end scourge of plastic pollution whilst recognizing the full lifecycle of plastics (UN, 2022). One of the themes at the summit concerned *circular plastics economy* whereby the value of plastics in the economy is retained without any leakages into the natural environment. This includes a focus on prevention, eco-design that

eliminates toxins, and resource-efficient use of plastics as highlighted in the European Green Deal and the CE Action Plan (*EU Plastics Strategy*) (EC, 2019, see 2.4).

### 2.3.5 Housing and Construction waste

Although housing and construction activities contribute to waste, the value of vacant buildings as an underutilized material/anthropogenic stock is increasingly recognized in the CE where refurbishing, retrofitting and repurposing of existing buildings is preferred over construction of new ones (Pomponi & Moncaster, 2017). In reference to housing, Wuyts et al. (2019) distinguished two types of housing stock, namely 'dead stock' and 'hibernating stock'. The dead stock refers to those buildings that are unlikely going to be sold for service and costs of maintaining them are high. In this case, urban mining of building components is advised. The hibernating stock, on the other hand, concerns buildings that could be brought back to use after being refurbished.

In addition to being stocks of space, buildings too are stocks of materials or "*reservoirs of secondary materials*" (Wuyts et al., 2020:2). Linked to this, deconstruction and refurbishment of existing built infrastructure poses an opportunity to recover and reutilize built materials. As Wuyts et al. (2020) advocate, cost-saving urban mining, i.e., recovery of "*secondary resources from obsolete sinks of materials in cities*" (page 2), and which were not designed for reuse and recycling, should be regarded as a desired strategy for the obsolete stock accumulation. Other CE principles in the building sector concern utilization of durable materials, increasing of the lifespan of buildings and postponing built-in obsolescence. Many of the building materials can be also sourced locally rather than globally, thus contributing to "*local circular strategies for the existing building material stocks and flows in the city*" (Wuyts et al., 2020:3-5). In cases where construction materials are low-cost, they can serve as a response to poverty and inequality so that low-cost infrastructure can be constructed for those in need. Promoting such practices is even more important given that circularity in the construction sector, including demolition waste, remains largely underdeveloped (Savini, 2019).

In terms of contribution to spatial capital – i.e., accumulated resources that enable an actor to take advantage of the spatial dimension - maximization of the use of vacant urban land and properties can further facilitate the pursuance of local, circular and sustainable development trajectories. For example, various community groups and SEs may want to use (and possibly share with other actors) vacant urban spaces/built infrastructure in order to run (circular) activities (these issues are revisited later on in the thesis e.g. 7.3 and 7.4).

## 2.4 Circular Economy: Governance and Policy

CE has quickly become a fast-developing area of policy and practice in the recent years. Designing and implementing effective policies and policy instruments is key to enabling transition to a CE. This includes subsidies, tax incentives and regulatory/market-based instruments such as Extended Producer Responsibility (EPR) schemes obliging producers to take financial and/or physical responsibility for the treatment/disposal of post-consumer products. Calls have been also made to lower labour tax whilst increasing tax on the use of virgin raw materials. This could, in turn, enable to better value workers; prioritize material reuse, recovery and recycling; and prevent companies from outsourcing to low-income countries. It is estimated that the value of such fiscal reforms could amount to €33.7bn whilst enabling to create hundreds of thousands of jobs in the Netherlands only (Aldersgate Group, 2017; Ex'tax, 2014). Such a transformation does, however, require major changes in societal beliefs, values and governance structures, which could be ideally facilitated through an integrated, trans-sectoral approach to the CE. Such an approach is congruent with the views of one of the CE pioneers, Stahel (2001), who acknowledged that the most sustainable solutions to the current sustainability challenges are multi-scalar, intersectoral and interdisciplinary in nature.

The CE literature recognizes that public commissioning and procurement are two vital mechanisms exemplifying how the governance of the CE is an interplay between the government, industry and the social economy sector (Winans et al., 2012). Commissioning can be defined as:

*“the strategic activity of identifying need, allocating resources and procuring a provider to best meet that need, within available means”* (Local Government Group, 2011:6).

Following the UK National Procurement Strategy (NPS), public procurement is:

*“the process of acquiring goods, works and services, covering both acquisition from third parties and from in-house providers. This process spans the whole cycle from identification of the needs, through to the end of a services contracts or the end of the useful life of an asset. It involves options appraisal and the critical ‘make or buy’ decision which may result in the provision of services in-house in appropriate circumstances”* (Office of the Deputy Prime Minister/Local Government Association, 2003:17).

While both terms – public commissioning and public procurement – are often used interchangeably, scholars such as Murray (2009) draw a distinction between them, claiming that procurement constitutes one part of the commissioning process. Murray (2009:200)

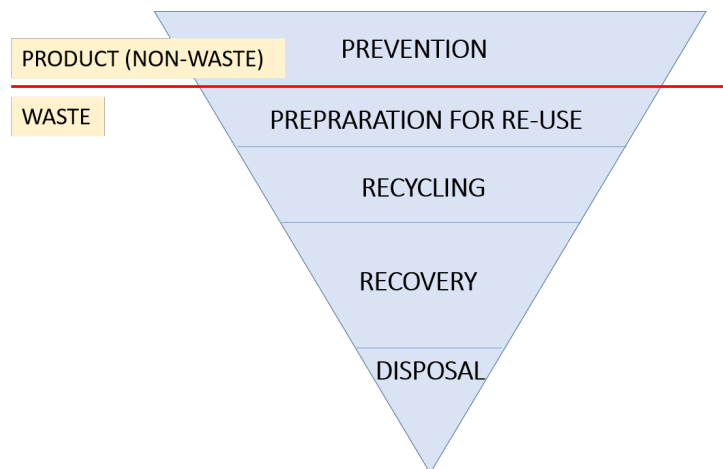
recognizes that commissioning offers opportunities for procurement practitioners to make a strategic contribution to the strategic processes and to impact the lives of communities. This is where the concept of social procurement deserves attention as it differs from conventional procurement in that the buyer ensures that procured goods and services create benefits for people, stakeholders and society as a whole. A related concept, which particularly acknowledges environmental benefits and builds upon the concept of sustainable public procurement (aiming to contribute to sustainable development across time and geographies) (Knebel & Seele, 2021), concerns circular procurement. According to Zero Waste Scotland (2021), circular procurement refers to:

*“[t]he use of purchasing power to achieve maximum positive ecological, social, and economic impact throughout the life span of products and services. (...) Instead of always throwing away and replacing, it is about trying dynamic and adaptable products and solutions. Maximum retention of the value of the products, components and materials to be purchased is central to this. Circular procurement extends beyond ‘traditional’ sustainable procurement by actively contributing to closing energy and material loops within supply chains, while minimising any negative environmental impact or waste creation across their whole life cycle”.*

In terms of international policy instruments, 53 countries (including the EU, UK and Chile) signed the Basel Convention, which emerged out of the need to reduce cross-national movements of hazardous waste. Claims are being made that the Basel Convention may have bigger impact (in that more resources such as plastics will be recycled at the point of generation) than China’s ban on imports of recovered mixed paper, recycled plastic, textile, scrap metal and vanadium (along other categories) (Gregson et al., 2015; Staub, 2019). This implies that recyclers may be present at the source of goods or scraps, thus stimulating the development of waste recycling systems in those countries hitherto treating less developed parts of the world as a waste dump due to cost-efficiency considerations of market actors. There is, however, the risk that some of those waste-exporting countries would shift towards unsustainable waste incineration. Moreover, despite the growing pressure to implement EPR schemes, such schemes do not necessarily imply that producers will manage their waste in a better manner than, for example, local authorities; yet findings reveal that the waste collected for treatment under EPR schemes finds its way to Asian and African countries (Vermuelen et al., 2021). Such schemes could therefore benefit from greater data transparency and international collaboration.

### 2.4.1 EU level

Many European governments are becoming concerned with the rising costs of vital raw materials, such as those that are essential for digitalization, due to increasing resource scarcity. And yet, recycling is considered expensive when compared to importing certain new materials, and lowers quality of materials (EC, 2017). Consequently, the CE has gained momentum among the European Union (EU) policy makers, especially since the European Commission introduced the CE Stakeholder Platform and an initial CE Package in 2014 (European Union, 2016), as well as the European Green Deal (2019), which has been expected to be accelerated by the CE Action Plan introduced in 2020. This plan focuses on the ‘right to repair’, an EU-wide strategy for Plastics and product design in terms of durability, reparability and reusability (EC, 2019; EC, 2020a). As part of the CE Package, an EU Action Plan for the CE was introduced in 2015, which has helped to link several policy sectors ranging from environment, food waste, growth, climate, to research and development, whilst reconciling economic growth with social and environmental sustainability aspects (Rizos et al., 2017). In targeting the problem of food waste, the EU declared its mission to achieve the Sustainable Development Goal (SDG) 12.3 aiming to reduce food waste by half by 2030 (EC, n.d.; cf. 2.3.1). The EU Action Plan also recognizes green public procurement as a key driver of the transition towards the CE, thus aiming to address SDG 12 on responsible consumption and production (EC, 2020a). The consecutive legislative developments such as the EU Waste Framework Directive (2008/98/EC) were oriented at respective Member States which were encouraged to promote higher levels of the Waste Hierarchy Pyramid, i.e. prevention, reuse and recycling, rather than energy ‘recovery’ through incineration and landfilling (EC, 2018b) (see Figure 2.2).



**Figure 2.2 - Waste hierarchy pyramid**

Source: EC (2021)



The EU Waste Framework Directive (2008/98/EC) additionally introduced ‘the polluter pays principle’ and the EPR at the level of EU Member States, obliging them to improve transparency, cost-efficiency and ensure that the use of less environmentally friendly materials is penalized and more environmentally friendly materials are awarded (i.e., eco-modulation of EPR fees) in order to boost recyclability. On a related note, the Packaging and Packaging Waste Directive (94/62/EC) requires EU Member States to set up systems for the return and/or collection and reuse or recovery of used packaging – a requirement that can be fulfilled through the imposition of EPR schemes on manufacturers and importers by national governments, and which were promoted in the European Green Deal (EC, 2020b). Nonetheless, EPR has rarely been used as a tool to promote reuse and preparation for reuse. Other existing legal frameworks that can facilitate the shift towards a CE include Ecodesign Directive (2009/125/EC), REACH Chemicals Regulation (EC 1907/2006) or Taxonomy Regulation (2020/852).

In any case, studies reveal that the current policy practice in Europe tends to consider waste as a way to produce and consume under the cover of meeting climate targets (Savini, 2019). Many of the current approaches, in fact, do not help to reduce consumption and result in dematerialization, but, instead, tend to partake in ever-growing consumer capitalism.

#### 2.4.1.1 Austria

Austria, one of the global frontrunners in recycling where 58% of municipal waste is recycled due to effective policies and action (Eurostat, 2018), is now called to address circularity, which is not measured in recycling inasmuch it is in reducing primary inputs and outputs to nature (Circle Economy & ARA, 2019). As one of the EU Member States, the country is, in fact, legally obliged to conform to several EU Directives indicated above in order to meet EU targets. In addition to participating in the political programmes, such as the European Green Deal and the New CE Action Plan, the Austrian government set up a CE strategy for energy-intensive sectors and waste management that involves promotion of repair and reutilization, programme to avoid food waste, model regions for CE and scaling up of returnable systems (see Austrian Government Program 2020 in: Bundeskanzleramt Österreich, 2020). The country also has a large re-use and repair network – RepaNET – whose members have created around 1,800 CE jobs, and which has been closely collaborating with Reuse and Recycling European Union Social Enterprises (RREUSE) - a European umbrella association for social economy organizations involved in the CE. However, studies reveal that addressing a circularity gap in Austria is very likely to be slowed down by the fact that its growing economy is likely to remain vastly dependent upon imports of materials/physical assets utilizing virgin resources (Circle Economy & ARA, 2019).

## 2.4.2 United Kingdom

The UK Government has a 'resources and waste strategy', which promotes activities such as reuse, remanufacture, repair and recycling. Although UK left the EU on 31 January 2020, the country chose to retain the existing EU-derived Circular Economy Law as domestic law. While some directives such as Single Use Plastics directive was not retained as the EU law (it was introduced after the Brexit transition period), the government intends to implement similar measures (Doherty, 2020). It is also likely that compliance with EU standards will remain a practical necessity for UK businesses operating in the EU market. Nonetheless, it can be anticipated that Brexit might impact UK exports of certain wastes to other countries such as Sweden (where they are being burnt at incineration plants), causing increases in exports of illegal waste to countries with lower waste disposal costs such as Poland. Poland, in fact, received over 1,500 tonnes of illegal waste from UK companies in 2018/19, and which cost the UK Environment Agency £924 million (METRO, 2022). Strict controls and tougher penalties are hence required to prevent negative consequences for people and the environment. Crucially, as the costs of landfilling are rising, many city-regional governments, similarly to the EU countries, have invested in waste incineration technologies enabling to convert waste into energy (Savini, 2019). It is thus necessary to ensure that there is strong leadership and expertise on resource and waste management so that alternative waste management solutions are being sought after. This could ideally include the development of a more localised CE, which has been regarded as a post-Brexit opportunity (Steenmans, 2019). Linked to this, there is also a growing interest among public sector buyers to use government expenditure to invest in services through social-public sector contracts that benefit not only economy but also society and environment. For example, social procurement has been broadly promoted across the UK upon the endorsement of the Public Services (Social Value) Act 2012, which was officially enforced in 2013 and *"requires public authorities to have regard to economic, social and environmental well-being in connection with public services contracts; and for connected purposes"* (UK Public General Acts, 2021). Linked to this, the Central government distinguished three categories of social value: (1) social (e.g., activities that promote a united community); (2) environmental (e.g., efforts to assist the community in reducing waste or pollution); (3) economic (e.g., training, employment or apprenticeship opportunities for disadvantaged groups) (GOV.UK, 2021).

DEFRA has proposed to introduce EPR scheme for packaging from 2024 (GOV.UK, 2022). DEFRA has been also considering the implementation of Deposit Return Scheme (DRS), which is being explored by local authorities including Hull City Council (HCC). Such scheme would involve 15-20p deposit on a single-use drinks container, which would reduce the number of

containers entering recycling bins and would ideally enable packaging producers to take greater responsibility for their products, ultimately removing some financial pressure off public authorities provided that producers pay the full net costs (i.e., ensuring that DRSs do not divert material and income away from councils). Deposits could be donated to charitable SEs and community organizations, which could operate return points to reclaim deposits that might otherwise remain unredeemed (DEFRA, 2021b).

#### *Yorkshire and the Humber*

Regarding the subnational CE governance landscape in the UK, Yorkshire and the Humber is one of nine administrative regions in England with its largest cities being Leeds, Sheffield, Bradford, Hull and York. Counties in the region host Local Enterprise Partnerships (LEPs), which are implemented by the UK government to stimulate local economic development (Rossiter & Price, 2013). For example, the City of Hull hosts the Hull and East Yorkshire LEP, which has brought significant investment to the city in recent years and promotes the Humber as an 'Energy Estuary' where transition towards a cleaner economy occurs (Humber LEP, 2019). York and North Yorkshire LEP is, in turn, involved in specifically promoting the CE, for example via The Circular Yorkshire campaign or the Circular Yorkshire Week during which Cresting project researchers showcased their research findings (see video-clip by York & North Yorkshire LEP, 2021), inviting LEPs and local authorities to draft a CE framework strategy for the region (cf. Newsholme et al., 2022).

#### **2.4.3 Chile**

CE is also starting to gain momentum in Latin American countries, such as Chile, especially after initiatives such as the Circular Economy Coalition coordinated by UNEP and launched at the XXII Meeting of the Forum of Ministers of Environment of Latin America and the Caribbean (UNEP, 2021b). The Coalition has launched vision for a regional CE, which would involve cross-country collaboration. While most Latin American countries have introduced several roadmaps and policy instruments for the CE (e.g., material resource efficiency targets, EPR schemes or clean technology tax exemptions), many are slow to introduce resource-efficient production practices due to the high reliance of Latin American industries on raw materials. They also do not align waste management practices/policies with the concept of the CE wherein recycling should be the last resort. Studies also reveal the need for more robust, collaborative and accountable institutions to foster CE development that spans sectors and is aligned with existing economic, industrial and social sectors/policies (Schröder et al., 2020b).

Chile is considered the top CE frontrunner in Latin America as it has the largest number of public initiatives in this field (Schröder et al., 2020b). First, the government of Chile created a

CE unit within the Ministry of the Environment, which closely collaborated with the state economic development agencies: Production Development Corporation (Corporación de Fomento de la Producción – CORFO) and the Sustainability and Climate Change Agency (Agencia de Sustentabilidad y Cambio Climático – ASCC). Such close inter-agency ties have led to the creation of a CE roadmap and a financial support scheme for developing and upscaling social and CE-related initiatives, such as those offered by start-ups and SEs (Schröder et al., 2020b). Second, Chile introduced, under the landmark Framework Law No. 20,920 (‘The Bill’) ‘Waste Management, EPR and Recycling Promotion’, a mandatory EPR scheme for the following ‘priority products’: (1) oils and lubes; (2) electric and electronic devices; (3) batteries; (4) containers and packages; (5) tires; (6) AA Batteries; and (7) newspapers and magazines due to their high volume and absence of channels to recycle them in Chile once the product’s useful life is over (Gobierno de Chile, 2016a). The Bill is also established targets for collection and recovery of household and non-household packaging waste; it aims to increase reuse rate up to 30% and has helped to formalize ‘waste pickers’. The Chilean government also implemented the National Programme on Sustainable Consumption and Production, which has led to the creation of the National Action Plan on Sustainable Consumption and Production (2017–22), and includes sectors such as construction, industries or sustainable lifestyles (Gobierno de Chile, 2016b). Moreover, the Chilean Ministry of Environment and Fundación Chile introduced the Chilean Plastics Pact (Circula El Plástico) in 2018 aiming to enable recycling, reuse and composting of at least one third of household and non-domiciliary plastic packaging; and ensuring that plastic containers and packaging contain at least 25% of recycled material (Circula El Plástico, 2022). Linked to this, Chile also banned the commercial use of plastic bags in 2018 under the Law No. 21.100 (BBC, 2018b). There are also plans to develop DRS schemes for packaging and plastics (CMS LAW, 2021).

## 2.5 Local Circular Economic Development Trajectories and Diverse Circular Economies Perspective

Having explored the wider CE governance landscape, this section proceeds to examine the emerging literature on local development of the CE. Although the definition of the concept ‘local development’ continues to evolve, it can be broadly referred to practices that *“encompass and reflect geographical variation and uneven economic, social, political, cultural and environmental conditions and legacies in different places across the world”* (Pike et al., 2010:2). In a similar fashion, Pike et al. (2010) noted that developments at local and regional scales have in common the *“turbulent context that imparts complexity, inter-dependency, risk, uncertainty and rapidity of change upon any considerations of the development of localities and regions”* (page 2-3). Another current additionally recognizes subjective notions of social

equity, quality of life and wellbeing in the context of development, especially at the local scale (Marin, 2017). In short, acknowledging the broader (institutional) contexts, including diverse politics, power relations, as well as the distinctiveness of particular places is important when exploring local and regional CE development pathways.

There is a growing interest worldwide in applying CE principles to diverse local (and regional) economic development contexts. For example, various studies call for (re-)localization of production, which helps to reduce carbon footprint associated with global, fuel-dependent circulation of material products and services (Bolger & Doyon, 2019; Jørgensen, 2019; Arcplus, 2019). This is especially relevant given that economic activities are often only deemed genuinely circular when they occur at the local level such that spatial distances between economic spaces of procurement, production, exchange and consumption are significantly reduced and hence negative environmental externalities lessened (Stahel, 2013). In addition to environmental benefits, by creating a favourable environment for the development of CE activities at the local level it is possible to create new employment opportunities, which ultimately help to boost local adaptive capacities and resilience to external economic shocks. Kirchherr et al. (2017) distinguished the following three levels that are targeted by the CE: the macro-level comprising policies and regulations; the meso-level concerning industrial networks; and the micro-level referring to organizations, products and resources. This research argues that it is the local and regional authorities (at the micro- and meso-levels), as well as SEs (micro-level) that are going to play an important role in providing incentives to drive/stimulate the local economic development of the CE. Crucially, local and regional authorities are subject to broader national regulatory and political frameworks, as well as taxation, all of which shape their activities at respective local and regional levels.

### 2.5.1 Towards Circular Urban Metabolism?

The word 'urban' does not necessarily refer to a particular geographical area but "*spatial configurations of labour, energy, data and money*" (Berndt et al., 2020:201). Such definition as to what constitutes 'urban' thus goes beyond viewing it solely as a container for (over)accumulation of capital to account for other forms of materiality of urban life such as green/internet infrastructure. Crucially, cities can be viewed as "*networks of material streams, in which one activity's waste becomes another's resource*" (Savini, 2019:680). Such perspective is consistent with industrial ecology research that studies material and energy inflows and outflows within specific system boundaries (Ayers & Ayers, 1996). More importantly, accounting for the broader spatial patterns enables one to holistically view cities as dynamic systems.

Another concept that captures material flows across the city refers to urban metabolism, which was originally coined by Wolman (1965) when examining inflows and outflows of energy, water, materials and waste to and from an urban region. Kennedy et al. (2007:44) defined urban metabolism as *“the sum total of technical and socio-economic processes that occur in cities, resulting in growth, production of energy, and elimination of waste”*, thus drawing upon the definition of metabolism, wherein it refers to *“the sum total of the chemical processes that occur in living organisms, resulting in growth, production of energy, elimination of waste, etc.”* (Collins English Dictionary, 2014). As resource (in)flows to a given system form stocks, some of these accumulated/stored materials may be toxic, and just like in a human body, such accumulation of toxins may threaten health and existence of a given system. It is thus necessary to recognize potentially harmful metabolic processes that may endanger sustainability of a given city (Kennedy et al., 2007). This is where bringing together the multidimensional lens of the CE to urban metabolism is useful as it can help to promote transition from linear urban metabolism to circular urban metabolism (Lucertini & Musco, 2020) by advancing design of urban redevelopment pathways whereby (1) resource inflows to a system (city) are reduced and, where possible, sourced locally; (2) efficiency of material stocks within the system is increased (e.g., through the integration of waste and energy/heat networks); and (3) resource outflows from the system are subject to reuse (Sanches & Bento, 2020; Savini, 2019). Practices such as localization of production and reuse of available materials can, in turn, help to boost cities’ self-sufficiency and resilience to global market fluctuations. Given that urban metabolism is a useful tool enabling to accelerate the transition to a CE (Sanches & Bento, 2020), some of its components are explored in this research in more detail (cf. Chapter 5 and 6).

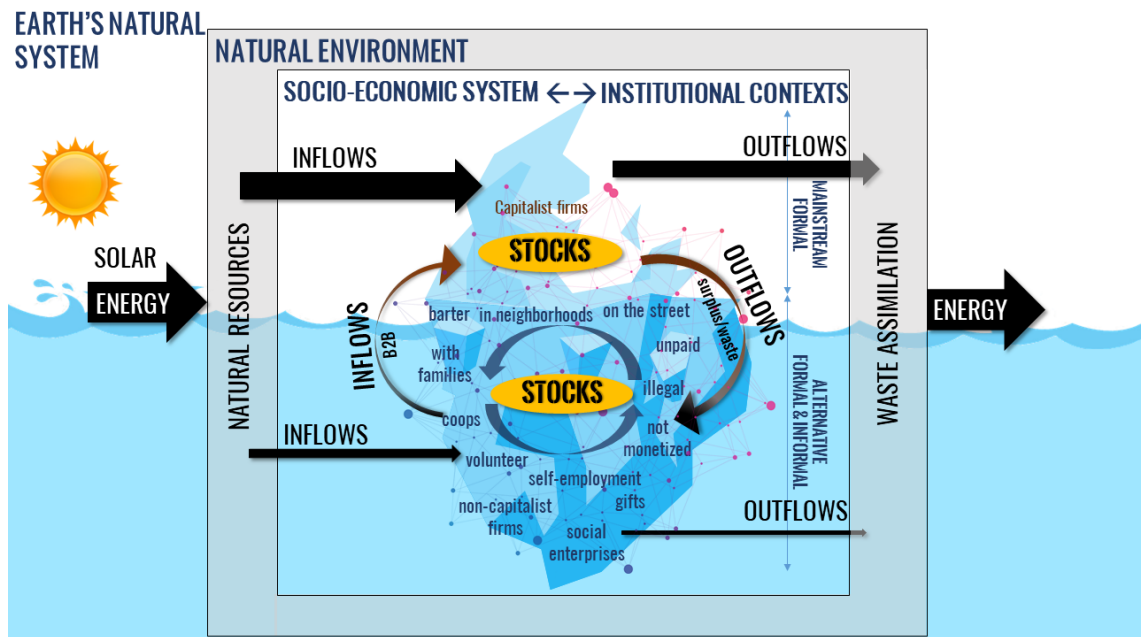
### 2.5.2 CE and Diverse Circular Economies: Where Two Worlds Collide

A novel approach to local economic development trajectories in the CE builds upon the concept of diverse economies. Originating from the economic geography literature, research on diverse economies examines economic activities not so much through the dominant lens of markets and monetary transactions, but instead in terms of the social desirability and intrinsic value of everyday economic and extraeconomic transactions (Gibson-Graham, 2006). In so doing, the concept of diverse economies challenges the hegemonic representation of all economic activities by bringing into light alternative approaches and movements (Gibson-Graham, 2006; Krueger et al., 2017).

Similarly to the concept of the CE, the diverse economy occupies an important niche in contemporary economic development discourse and practice. Unlike the CE, diverse economies concept emerged not as much out of environmental concerns as out of the growing

need to represent and reveal the great diversity of institutional forms of economic organization in global capitalism (Gibson-Graham, 2006). Diverse economies and spaces are portrayed as more than just marginal, subjugated phenomena or merely as subsystems of an overarching global capitalist economic system. Instead, they are regarded as essential elements of an intrinsically variegated and locally emergent economic landscape comprising a great variety of institutions, circuits and flows of materials, commodities and value (Gibson-Graham, 2006; Lee, 2006; Healy, 2009; Gritzas & Kavoulakos, 2016). By co-existing with mainstream economic institutions in different places, diverse economies are, moreover, inherently 'tangled up' (Lee 2006) in complex social relations, material transactions and geography. As such, the literature depicts diverse economies as inherently dynamic, performed and always in the process of becoming, both organizationally and geographically, rather than as pre-given and static. The diverse economy literature further enables one to reconceptualise CE from the vantage of circuits of value (see next sub-section) by highlighting the broader institutional and socio-ecological contexts in which alternative and mainstream economic spaces co-exist, and which shape social relations and networks underpinning both economic realms. When referring to the CE, therefore, this research recognizes that the CE itself is comprised of heterogeneous and overlapping economic practices, 'circulations' and flows or 'circular economies' (CEs) (cf. Gregson et al., 2015).

Incorporating the Economic Iceberg diagram developed by Gibson-Graham (2006), Figure 2.3 illustrates the complex and diverse mosaic of economic spaces through which people produce, exchange and distribute materials and resources both within and outwith the mainstream capitalist socio-economic system. These forms may range from consumer and worker cooperatives, bartering or any voluntary work in nonprofits to social enterprises (SEs), and further reflect the diversity of social relations, conditions, and more specifically coexistence of regulated mainstream market transactions with unregulated non-market transactions, paid and unpaid/voluntary labour in particular places (Gibson-Graham, 2006). Crucially, Figure 2.3, illustrates that such forms, which can be also referred to as 'spaces of alterity' (Fuller et al., 2010), are embedded within the broader institutional and socio-ecological contexts which shape social relations and networks (see Chapter 3) underpinning both economic realms.



**Figure 2.3 - Resource flows across the mainstream and alternative economic spheres: a heuristic framework**

Source: Lekan et al. (2021a) after Community Economies Collective (2021), Laurenti et al. (2018), and Haas et al. (2005). See Cresting ITN (2021) [YouTube video](#) to view it in the form of an animated clip.

Lee (2006:427) noted that *“the notion of diversity is integral to a potentially transformative politics of economic life”*. While spaces of alterity are, in fact, rarely recognized as motors of change and often remain hidden from mainstream local development discourse, studies nonetheless reveal that they can have a significant positive impact on social, community and physical well-being, as well as local livelihoods and environmental sustainability (Gibson-Graham, 2008). Crucially, many of these non-mainstream, everyday economic activities and spaces can be defined as inherently circular because they may incorporate diverse CE practices such as reuse, repair, refurbishment, rental, remanufacture, local resource sharing and recycling (e.g., clothing swaps, second-hand markets, repair cafés) (Lekan & Rogers, 2020).

By further referring to Figure 2.3 and drawing upon the concept of metabolism (see 2.5.1), energy arrows reflect energy flows through the biosphere. The figure also recognizes material inflows of extracted natural resources to the socio-economic system, as well as outflows of resources (pollution, waste) from the socio-economic system and back to the natural environment. The curved arrows above the ‘submerged stocks’ in Figure 2.3 indicate flows between stocks of human, financial, social and natural capital that enable the development of such alternative CE practices. CE activities might be also enabled by resource exchanges across the mainstream and alternative economic spaces (see the curved outflows and inflows arrows linking visible and submerged forms of organizing). Spaces of alterity (Fuller et al., 2010) hence might become sinks for resource outflows from the mainstream by capturing and managing



globalized stocks locally. The same locally reproduced resources may be transposed back to the mainstream where they may be managed globally. The Figure 2.3 hence demonstrates how flows of stocks recirculate through the diverse economy itself.

Gibson-Graham (2008) argued that at the core of the diverse economies concept is the desire to build locally based community economies as another economic reality rather than fostering their growth solely for the sake of alterity or 'alternative' economic spaces. Many of the alternative economic practices have thus a 'local' value through their embeddedness within and/or aims to target, local communities, many of which have 'dissolved' in the wake of globalization (Jonas, 2013). The concept of 'community' can be defined in terms of *"the need to re-socialise economic relations by adopting an ethical approach and recognising the interdependence of subjects and economic practices and going beyond an individualised performance without refusing or eliminating any singularity and individuality"* (Gritzas & Kavoulakos, 2016:8). Such definition of the term 'community' can be described as anti-essentialist as it embraces diversity of attributes that are central to identities (Gibson-Graham, 2006). Community can be also defined as a local society where *"the population meets its daily needs and encounters shared problems"* (Theodori, 2005:663). Linked to this, many of the bottom-up alternative approaches tend to negotiate their interdependencies and help to address income disparities by seeking to equitably distribute the community social surplus' value generated by labour power rather than leaving it to accumulate in the hands of individual private owners of the means of production (Roelvink & Gibson-Graham, 2009). In doing so, they challenge assumptions about economic development based around principles of purely profit-driven rational individualism, and potentially contribute to socially inclusive and equitable local economic development. Just like in nature's design, such economic diversity is reflected in complex networks that enable the distribution of resources throughout the socio-economic system and helps to boost local community resilience in the face of external economic shocks (Raworth, 2017). While efficiency occurs when resource flow within an ecosystem is simplified and achieves its aims, resilience is contingent upon *"diversity and redundancy in the network, which means that there are ample alternative connections and options in times of shock or change"* (Raworth, 2017:148). Vitality and robustness are essential to create a balance between efficiency and resiliency so that the system does not become stagnant in case too much resilience slows down resource flows. Such an understanding of complexity and resilience within ecosystems is increasingly acknowledged in the field of ecological economics, which recognizes that more integrated approaches are necessary to ensure sustainability (Common & Stagl, 2005). Stated differently, viewing environmental

challenges as market failures, or internalizing externalities is not enough to foster regenerative economic development.

In critiquing the mainstream formal-informal binary and privileging one form of organizing over another, some suggest that the diverse economy concept does not consider the precarious living circumstances of communities formed by low-paid or unemployed individuals (Samers, 2005). Evoking Kaufmann (1997:8), Samers (2005:883) further argued that *“it is not only a matter of whether a population can influence and indeed control the processes of both decision-making and implementation but rather, the extent to which the mass of the population has the means to define the terms and nature of its participation”*. Apart from the limited time and space employed among the disadvantaged groups for democratic participation, it is also argued that the unequal power relations across the two economic realms can evoke feelings of hopelessness to enact change (Gritzas & Kavoulakos, 2016). Many alternative economic spaces emerge out of the need to provide means of survival to local communities by redistributing resources among those in precarious living conditions; these are defined as ‘alternative-substitute’ economic spaces (Fuller & Jonas, 2003). Once empowered, the previously vulnerable individuals may be encouraged to re-imagine alternatives and become more engaged in shaping their democratic participation. Fuller & Jonas (2003) draw a further distinction between ‘alternative-additional’ institutions and spaces, which are complementary to mainstream economic activities and the welfare state, and ‘alternative-oppositional’ institutions and spaces that actively oppose mainstream economic forms and spaces.

It follows that local CE development spaces should not be seen as ideal types so much as a way of understanding how different economic forms emerge to address a variety of pressing economic and socio-environmental challenges facing particular localities and communities. As such, it is necessary to incorporate a local developmental trajectory into the analysis of CE practices, which now informs a discussion of circuits of value.

### 2.5.3 Circuits of Value and Capital

Circuits of value constitute an important analytic arsenal of this research. Originating from the research on diverse economies, the concept of circuits of value (Lee et al., 2004) serves as an analytical ‘glue’ enabling us to conjoin the concepts on CE and diverse economies. Crucially, it enables one to investigate and capture in a more concrete fashion feedback loops and value flows underpinning the (re)circulation of material resources within and through a diverse economy as represented in the heuristic in Figure 2.3.

Circuits of value refer to material and social pathways around which values attached to a given resource circulate and are subsequently (co-)produced, transformed/exchanged and consumed through relevant economic activities (Lee, 2006). These circuits are being continually reconfigured by social relations and embody numerous, variegated conceptions of value that may include both capitalist (i.e., market-based) and non-capitalist/extraneous (e.g., social and environmental) values. As Hudson (2004:462) noted, “(...) *economic processes must be conceptualized in terms of a complex circuitry with a multiplicity of linkages and feedback loops rather than just “simple” circuits or, even worse, linear flows*”. The same principle can be found in the CE; albeit the CE-related concept of value itself needs to be expanded to encompass its diverse material, social and spatial forms and their constituent circuits.

By embedding non-capitalist values, the concept of circuits of value goes beyond Marx’s concept of circuits of capital (Fox & Marx, 1985) – the concept implying pathways around which labour-value and commodity-value circulate across spaces of consumption, production, and exchange (where commodities and their embodied labour-use value are exchanged into monetary prices/wages, i.e., ‘exchange value’) through monetary financial transactions and their supporting institutions. In circuits of capital, any generated surplus value (occurring when the volume and value of production outputs exceed the costs of production inputs) is appropriated by the owner of the means of production and therefore as production outputs. Such an approach to economic development thus focuses on capitalist use values at the service of exchange value, regards value as a quantity, and prioritizes the analysis of capital-labour relations at the point of production, hence at the expense of acknowledging the wider landscape of social reproduction and consumption and its constituent social relations of power structures (Lee, 2013; Warde, 1992). The resultant uneven distribution of power and financial capital is also captured by Santos’ (1977) classic study of ‘circuits of capital’, which draws a distinction between an ‘upper circuit’ dominated by mainstream economic activities and organizations (e.g., multinational firms) and a ‘lower circuit’ encompassing small-scale, informal enterprises, with the latter largely subordinate to the former through social relations of power and authority in the wider economy. Such subordination of ‘lower circuits’ to ‘upper circuits’ raises important concerns related to uneven appropriation and accumulation of capital and expose disproportionate power relations and socio-economic development at the local, regional and global scales.

This research casts its gaze on the intersection of lower and upper circuits of capital, and especially on the interplay of geographically expansionary circuits of capital and broader, non-market conceptions of value within and outwith spaces of alterity (i.e. small-scale circular SEs)

as ingredients of local and socially inclusive circular economy development. In doing so, it adopts Lee's (2013) definition of value as involving *"vital, life-sustaining things, ideas, relations and practices consumed, exchanged and produced"* (page 415), and which is present as enabled by the circulation of raw materials, commodities, money, labour (including their knowledge and skills) and social capital across mainstream and alternative economic spaces. Such a conception of value highlights the potential contribution of corresponding upper and lower circuits of value to social reproduction, i.e. support for the development of socially necessary conditions that sustain or improve extant social relations, (quality of) human life and (circular) economic activities (Fox & Marx, 1985). It is also consistent with Arnould's (2014) definition of value, which he understood as a *"contingent effect of interaction"* (page 2) that is enabled and/or supported by socially necessary resources. Such an approach hence enables to reconcile the satisfaction of social needs with demand for a circular/ecological approach in order to protect the natural environment.

The research further acknowledges that (use-)value can refer to *"forms of life, relations, things, thoughts and practices that are held dear and are considered to be inalienable"* (Lee, 2013:415). Such notion of value is highly relevant given the proposition that material success is a necessary but insufficient condition in building thriving societies (Gibson-Graham, 2006). Stated differently, it is important to recognize non-capitalist, intangible values surrounding (alternative) processes of production, exchange and consumption of value, and which may embody CE principles, as well as those embodied in circulating goods (e.g., environmental value embodied in revalued goods - waste). The latter case confronts the subjective theory of value according to which *"the value of goods arises from their relationship to our needs, and is not inherent in the goods themselves"* (Menger, 1976:120). In short, such an alternative way of portraying value shapes diverse notions, discourses and imaginaries about nature and extraeconomic purposes of circuits of value surrounding local CE development.

Moreover, the relational aspect of circuits of value augments and disrupts Polanyi's (1944) view on the economic embeddedness of social relations by depicting the market economy as embedded in not just social relations (Grannovetter, 1985) but also the natural environment. This is significant as socially embedded economic activities and associated transactions occurring across mainstream and alternative economic realms do not have to follow a dominant market logic but can revolve around negotiations about nature-economy relations within specific socio-cultural, political and spatial contexts. By recognizing non-market-oriented transactions, it is also possible to go beyond the received view of the CE, which predominantly focuses on flows of material resources. Nonetheless, the geographically expansionary and increasingly globalized nature of circuits of capital suggests that it is very

rare to come across circuits of value that are not, at least to some extent, subordinated to the laws of the market (Lee, 2011).

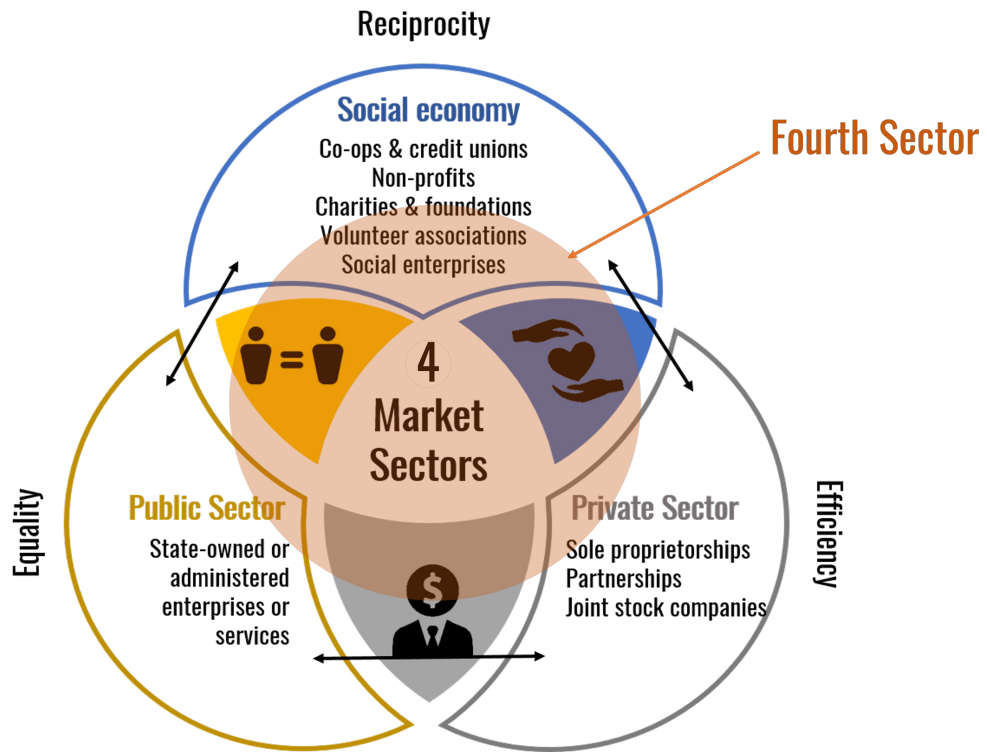
The inherently relational concept of circuits of value further disrupts a simplistic taxonomic segmentation of economic activities into mainstream/alternative, capitalist/non-capitalist and formal/informal binary categories (cf. Samers & Pollard, 2010). What is 'alternative' to someone may be, in fact, another person's 'mainstream'. In recognizing "*socio-spatial anatomy*" of economic processes (Hudson, 2005:143), circuits of value hence mirror Heley et al.'s (2012) multifaceted concept of compound economy, which concentrates on the "*diversity of drivers, values and forms of exchange*" (page 370), as well as "*relations and logics that combine in complex ways to produce, reproduce and transform local and regional economic space*" (page 368). Such an approach fosters novel social configurations and reveals how community, local, regional and global economies are interlinked. In a similar fashion, Cannas (2018) revealed that alternative local economies can coexist with mainstream, globally connected and monetized economic organizations whilst at the same time delivering new forms and circuits of value. Similarly, Gibson-Graham (2006) stressed the need to acknowledge the linkages between local alternatives and global capitalism instead of concealing the knowledge of the processes by which alternative economic spaces emerge/proliferate through an abstract analysis of capital-labour (class) relations. Such a depiction of the economy does, however, raise concerns as to what extent alternative CE activities occurring on the local scale may be strengthened through more robust links between local circuits of value as well as the regional and global economy (Gritzas & Kavoulakos, 2016).

In addition to disclosing the blurred boundaries between mainstream/capitalist and alternative/non-capitalist economic spheres, circuits of value can help to examine the degree of porosity of the boundaries between formal and informal economic practices. While there is no clear definition of what constitutes 'informal' within the economic discourse, this concept has been generally defined as an unregulated, fluid sector of the economy, which practices tax evasion, operates outside the law, lacks government sanctions, remains unregistered in the state accounting systems and does not receive support from the private sector (Loayza, 1999). The informal economy might be the result of the lack of compliance with laws due to their inappropriate, burdensome and costly nature (International Labour Organization, 2002). Informal sector also concerns the economic segment wherein the poor and communities can sustain themselves and improve their living conditions. By doing so, they may produce self-governing structures within or without the reach of official governance mechanisms (Basudeb et al., 2006). The informal sector can be thus viewed as a survival mechanism or a safety net helping the poor to make ends meet (Henry & Sills, 2006).

## 2.6 Social and Ecological Economics and the CE: Towards Social Circular Enterprises?

The diverse and alternative economies literature has so far investigated, inter alia, a number of diverse forms of economic activity such as (worker) cooperatives, credit unions, time banks, Local Exchange Trading Systems (Fuller & Jonas, 2003; Jonas 2013), households (Domosh, 1998) and, more recently, repair cafes (Rosner, 2014), makerspaces (Smith, 2020), and food swaps (Schor et al., 2016), to name a few. Many of the above forms can be defined as (or are run by) social enterprises (SEs), which Houtbeckers (2018) framed as a post-growth organizing in the diverse economy, and which may embody CE practices and thinking. SEs often represent a form of an 'alternative economic praxis' that is supposed to *"affect the (national) economy as a whole, reflecting in turn a conception of an associated social whole"*, whilst remaining an *"economic circuit in its own right"* (Amin et al., 2003:29). This is because SEs, contrary to the formal/mainstream economics, are expected and usually emerge to deliver a social/environmental value (rather than profits) in the first place. Yet further adding (in a more explicit fashion) such alternative forms of organizing to the context of CE sheds light on a new arena of alternative local development praxis within the wider social and circular economy.

The concept of social economy is predominantly used to describe economic activities performed by third sector organisations, which open up *"new spaces and new institutional forms to meet specific social needs"* (Amin et al., 2003:29). Apart from SEs, other bedrocks of the social economy concern charities, foundations, associations, community organizations, non-governmental organizations or not-for-profit businesses, i.e., organizations that have a social mission, are socially entrepreneurial, communicate problems that are often ignored by public authorities or private sector organisations, and usually maintain links to private sector, local authorities and community-based organizations (Zahra et al., 2009). Figure 2.4 below illustrates that the social economy is situated between the public and private sectors. It also distinguishes the emerging 'Fourth Sector' representing hybrid enterprises - i.e., those that blend social and/or environmental mission and employ business/market-based policies and practices, thus being, at least to some extent, financially independent unlike the majority of third sector organizations (Figure 2.4). The Aspen Institute (n.d.) distinguished interoperability as an essential factor enabling the Fourth Sector to achieve its full potential through synergistic connections between diverse actors forming a supportive ecosystem for 'for-benefit' enterprises to thrive and drive positive social changes.



**Figure 2.4 - The four sectors of the economy**

(Author's design after Lewis (2006) and Fourth Sector Group (n.d.)

Figure 2.4 also demonstrates that the social economy sector is broadly associated with the economic principle of 'reciprocity'. This is because social economy organizations tend to encourage generation of social capital, which is underpinned by collaborative action, social trust, shared accountability, solidarity and efforts to mobilize local capacities that underlie many welfare reform programmes (cf. 3.9.6; Lewis, 2006; Kay, 2006). More importantly, such organizations have characteristics necessary to promote inclusive citizen engagement in practices that foster the development of ecological economy (Gliedt & Parker, 2007) and green social economy (Vickers, 2010). The premises of ecological economics are also consistent with Polanyi's (1944) call to shift from market-oriented economy towards embeddedness of the economic system within a social system, which is in turn embedded within an ecological system. As Smith (2005:282) noted: *"awareness of the broader ecological context of social aims is emerging across the social economy"*. Social economy is not, however, present across all levels of economic practice at a national scale (Amin et al., 2003), and it is predominantly manifested in local communities and neighbourhoods. Interestingly, Pearce (2003) referred to the private, public and social economy sectors as 'systems' in order to better illustrate the overlapping boundaries and complex interactions across the three realms.

### 2.6.1 Social Enterprises: Alternative Circular Economy Spaces in the Making?

The definition of a SE is ever evolving and contested, since different actors construct and use it according to their needs (e.g., as a policy tool) (Teasdale, 2012). SEs are distinct from non-profit organizations by being income-earned ventures that are, at least to some extent,

financially independent by having a trading arm. SEs hence embed both mainstream and alternative characteristics and, depending on the national context, they may be subject to taxation while being eligible for donations. More importantly, they seek to maximize social impact (i.e., create positive externalities) by reinvesting profits to fulfil a social and/or environmental mission rather than only distribute them among shareholders (Longhurst et al., 2016). Linked to this, they are crafted to respond to, and cope with, diverse and intractable social fractures and environmental dilemmas such as homelessness, food poverty, unemployment, social exclusion of women, ex-offenders, lone parents and racial/ethnic minorities, mental health issues, or piles of (non-)biodegradable waste (Dart, 2014; Sud et al., 2019; Vickers, 2010). SEs are thus important social actors when it comes to providing both symptomatic support to aid the poor and satisfy basic social needs, and systemic support to address individual and social challenges (e.g., they may run social and work integration schemes, and improve human health by promoting environmental stewardship) (Certo & Miller, 2008; Kay et al., 2016). In doing so, they may act as public spin-offs and safety nets for dysfunctional public policies, which redirect social responsibility from the state to community-based organizations (Amin et al., 2003). They may also help to “*develop relational assets in business processes*” (Kim & Lim 2017, 1427), enabling focal actors to create and appropriate social value whilst enhancing social wealth (Mizik & Jacobson, 2003). SEs may also harness negative externalities (e.g., waste), which may be neglected/unrecognized by the government and companies and may be invisible to the general public (Santos, 2012). Such environmentally driven entrepreneurship has been variously termed as green entrepreneurship, eco-preneurship or enviropreneurship (Vickers, 2010). Crucially, SEs are increasingly recognized as important CE-enablers and even pioneers in the CE as they may eliminate toxic materials, engage in bricolage (Domenico et al., 2010) or upcycle wasted materials (EC, 2016; Social Circular Economy, 2017; Bebasari, 2019).

SEs operate across a broad spectrum of forms, sizes and organisational structures ranging from charities with a trading arm and social benefit enterprises to social purpose business and socially responsible commercial enterprises (Bolton et al., 2007). In this research the majority of SEs concern charities with a trading arm and social/environmental purpose business (see Figure 4.2 in 4.4.4). Johannisova et al. (2013) also distinguished between primary (first-tier) SEs and secondary (second-tier) SEs whereby the former category refers to SEs providing basic goods and services that satisfy local needs. The latter second-tier SEs refer to those SEs that serve primary SEs in an auxiliary manner by safeguarding and providing them with non-market capitals such as land, lower-than-market rent premises, knowledge and financial capital, all of which are taken from the market and placed under democratic control to benefit local



communities socially and environmentally. The associated cost-advantages of non-market capitals make them a unique and highly desirable alternative in a competitive and globalised market.

Since SEs are deeply entangled in market dynamics and reflect progressive crossing and interlocking of boundaries across public, private and social sectors (Gutberlet et al., 2016), it is increasingly difficult to distinguish behaviour and operations of SEs from conventional businesses strongly focusing on corporate social responsibility (CSR). Whilst private companies are increasingly seeking to demonstrate their CSR and execute public services, SEs sector increasingly adopts business-like models in order to survive and/or prosper/upscale (cf. 'Fourth Sector' in 2.6; Friedman and Miles, 2001; Vickers, 2010; Bridge et al., 2014; Peattie and Morley, 2008).

Overall, it is important to scrutinize a diversity of organizational forms, motivations, antecedents, broader contexts and actions underlying particular entrepreneurial processes when exploring their contribution to the socially inclusive CE development. Linked to this, this research proposes a robust typology of SEs involved in the CE (see 5.5). It also seeks to rethink the role of a business from a diverse CE perspective wherein cross-sectoral collaborations enhance (re-)circulation of (non)material resources through monetary and non-monetary transactions, rendering positive socio-environmental and multi-stakeholder values in a given spatial context.

### 2.6.2 Social Circular Innovations

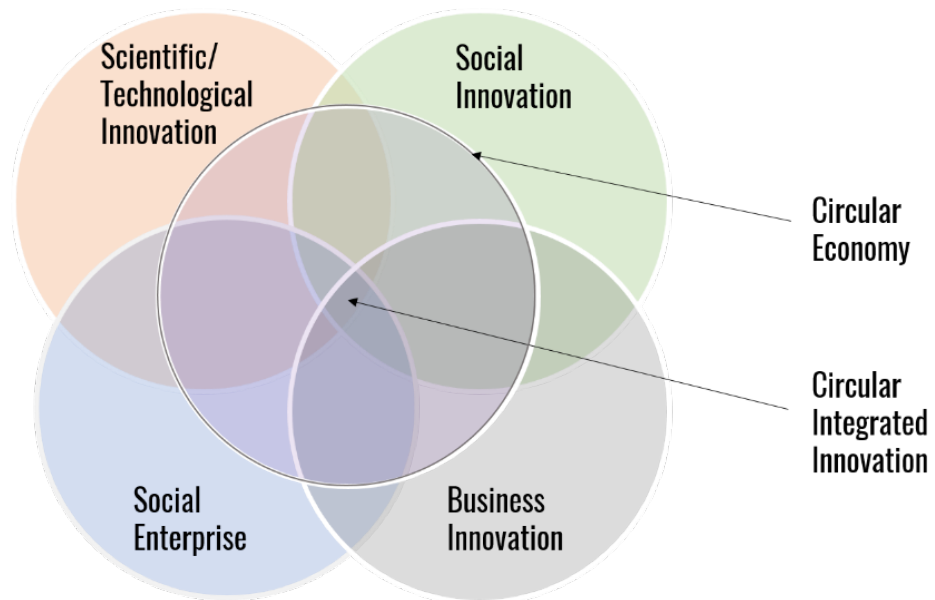
As SEs emerge to address a broad array of social and environmental issues, they are inherently innovative and can act as testbeds for circular innovations. Prasad and Manila (2018) came up with the concept of 'Circular Social Innovation' (CSI), which lies at the intersection of social innovation, SE and CE. They proposed that the main premise of CSI is to maximise social and environmental benefits stemming from an innovation, which is regenerative and restorative in nature.

While innovation can be defined as *"reconfiguration of (interactions between) existing products, practices and processes"* (Wigboldus & Brouwers 2016:17), social innovations refer to *"new solutions (products, services, models, markets, processes, etc.) that simultaneously meet a social need (more effectively than existing solutions) and lead to new or improved capabilities and relationships and/or better use of assets and resources"* (The Young Foundation, 2012:18). Social innovations may thus encourage empowerment of (potentially marginalized) agents by improving *"socio-political capability and access to resources necessary to trigger the right to satisfaction of human needs and to participation"* (Bund et al., 2015:52),

yet through novel management practices, social learning processes and governance structures. Social innovations thus help to change behaviours and result in ameliorated capabilities and relations that capitalize on existing assets and resources (Pue et al., 2016). Crucially, the concept of (social) innovation is a relative concept because what is common in one place may be regarded in other places (where it is not so common) as an innovation. In a similar fashion, what is nowadays common (in particular places) may have been an innovation in a different temporal (and spatial) context (Wigboldus & Brouwers, 2016).

A related concept of inclusive innovation, which can be classified as a sub-category of social innovation, describes *“means by which new goods and services are developed for and/or by those who have been excluded from the development mainstream, particularly the billions living on lowest incomes”* (Heeks et al., 2013:1). Linked to this, Lysek (2019) came up with the concept of embedded innovation, which aims to capture the needs of different actors within a given network, including customers, suppliers and partners, with which particular organizations under scrutiny are embedded. This type of innovation is oriented at the creation of ‘innovation ecosystems’ and can help to better explain under what conditions SEs may co-exist in symbiosis with other actors/organizations in order to maximize value created/better prosper and survive. For example, Hart and Dowell (2011:1472) noted that there is a *“need for companies to co-create businesses in conjunction with base of the pyramid (BoP) communities rather than simply marketing low-cost products through extended distribution systems”*. Integrating the concepts of social, embedded and inclusive innovation, which embody complex and socially embedded processes (Bund et al., 2015), with that of CE and SE, may thus enable to further enrich the concept of the CE with a social dimension. Another concept that is to some extent related to the concept of social innovation refers to integrated innovation, i.e. *“the coordinated application of scientific/technological, social and business innovation to develop solutions to complex global challenges”* (Grand Challenges Canada, 2010:4). In highlighting synergies between three types of innovation, this approach aims to conjoin the understanding of challenges in particular local contexts with processes of developing new and/or altering existing products and services to make them affordable and of high quality; and processes of conducting research to embed innovations in particular spatial contexts.

Based on the above approaches, this research proposes an Integrated Circular Innovation model, which integrates Prasad and Manimala’s (2018) Circular Social Innovation model, Lysek’s (2019) concept of Embedded Innovation, as well as Grand Challenges Canada’s (2010) concept of Integrated Innovation (Figure 2.5).



**Figure 2.5 – Integrated Circular Innovation model**

Author's design after Prasad and Manimala (2018) and Grand Challenges Canada (2010)

Notably, SEs that emerge in environments marked by resource scarcity (be it material, financial or institutional) tend to produce the so-called 'frugal innovations', which relate to *“doing more with less for more people”* (Prahalad & Mashelkar, 2010:132). By extracting value from, and maximizing and retaining value of, available resources (including waste and secondary goods), yet in a potentially collective way (e.g. by engaging communities in re-purposing activities), SEs can reduce costs of their products and services whilst generating multiple social and environmental/CE-related benefits (cf. Kuo, 2014).

Moreover, given that consumers and businesses with CE mind-sets are increasingly attaching more value to business models based on resource sharing (product-service systems) rather than ownership, SEs have the opportunity to capitalize on these approaches through social innovations; and in so doing, disrupt the mainstream product-based systems. As Weetman (2016:82) noted, *“effectiveness of resource usage and recovery will be more important than economies of scale created by the manufacturing processes”*. Nonetheless, one study demonstrated that SEs often realize CE principles at the cost of reduced profitability, lower growth and higher business risks as opposed to enterprises that are not socially-driven (Social Circular Economy, 2017). It is thus necessary to create a favourable environment for the development and diffusion social-circular innovations, a theme examined in greater depth in Chapter 3.

## 2.7 Conclusion

This chapter conjoined some of the key concepts surrounding local development of the CE in the context of social entrepreneurship, which can be referred to as *“a more ethical and socially inclusive capitalism”* (Dacin et al., 2011:3) and helps to further enrich the CE concept with a hitherto under-investigated social dimension (Murray et al., 2017). In so doing, it introduced the concept of diverse circular economies, which helps to disclose hidden forces and mechanisms behind alternative (circular) economic development trajectories/circuits of value set by mission-driven social enterprises (SEs). SEs are portrayed as entities reflecting the emerging trend of decline of traditional organisations due to the progressive crossing and interlocking of boundaries across public, private and social sectors.

This chapter further contends that SEs, by organizing economic activity in ways that build community capacity, empower people and respect ecological limits, may play a significant role over the next few years in addressing the widening socio-economic inequalities and responding to opportunities created by the emerging CE agenda that seeks to mitigate the growing environmental crisis. Overall, while it is necessary to ensure that SEs receive relevant support so that they can unleash their full potential to upscale both through and alongside the local development of the CE, the existing literature reveals that SEs do not necessarily offer radical economic alternatives to the predominant linear extractive economic development model (Affolderbach & Krueger, 2017; Amin et al., 2003). The next chapter turns to a critical review of literatures relevant for examining social-circular scaling strategies.

## Chapter 3 – Scaling Social-Circular Impacts

### 3.1 Introduction

In order to sustain and maximize social/environmental impacts generated by SEs, it is important to ensure that social-circular innovations, including goods and services and attendant partnerships, are scalable. In proving the ability to nurture and scale their businesses and partnerships, entrepreneurs are also more likely to receive relevant policy and programmatic support (Morris & Kuratko, 2020). Nonetheless, while socially/environmentally beneficial products and services delivered by SEs are increasingly expected to have a larger scale impact, SEs are facing many challenges that prevent them from becoming larger and less localised (Lyon & Fernandez, 2012). This chapter lays out theoretical and conceptual foundations for exploring internal and external capabilities of SEs whose understanding is important when examining SEs' capacity and potential to scale social circular innovations and associated value outcomes/impacts at different spatial scales and within particular places and institutional contexts.

The chapter is organized as follows. First, it defines the concept of scalability and outlines different scaling pathways that SEs typically pursue (3.2). It then provides an overview of some of the key drivers and barriers to scaling (3.2.1), which inform the usefulness of an integrated theory-driven dynamic capabilities approach to scaling proposed in the subsequent section 3.3. This integrated approach joins several subtheories under an overarching dynamic capabilities perspective. These subtheories include contingency theory (3.3.1), natural resource-based view theory (3.3.2), transaction-cost theory (3.3.3), theory of change (3.3.4), decision-making theories (3.3.5) and the network theory (3.3.6), which in turn incorporates several network-related concepts. Subtheories underpinning the relational network approach (e.g., population perspective – 3.3.6.4 or diffusion of innovation theory – 3.3.6.5) further help to explore how social-circular practices/innovations may be spatially diffused, dispersed and distributed through existing and potential connections in place and across space. This is highly relevant especially given that the transition towards a truly sustainable CE (one that benefits people, planet and profit, and comprises circular supply chains) requires a socially integrative (ergo relational) approach, which is underpinned by collaborative relations across social, public and private sectors and spaces (Mishra et al., 2019; Leder et al., 2020; Schröder, 2020). Such relations may include cooperative agreements, alliances, and strategic cross-sector and cross-scale (local, regional, national and global) partnerships that enable to share and exchange relevant information, knowledge, skills, capabilities and resources.

Considered together within an overarching theoretical framework, the subtheories complement one another in that they jointly facilitate the examination of entrepreneurial capacities, especially dynamic capabilities, understood as skills to scope, spot/recognize, evaluate, seize, and absorb opportunities to employ particular scaling strategies (cf. Clarysse et al., 2011:1085). Crucially, several subtheories discussed below enable a particular focus on the parts of the inquiry that are not captured by the dynamic capabilities perspective alone. They also underpin the *Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) Framework* (8.2) and *ISCIRVIS Toolkit* (8.3).

### 3.2 Scalability and Scaling Pathways: Key Concepts and Definitions

The concept of scalability is ambiguous and has many definitions and spatial implications. Broadly speaking, scaling of social innovations can be described in terms of pathways increasing *“the impact of social-purpose driven organization to better match the magnitude of the social need or problem it seeks to address”* (Dees, 2008:18). As many environmental issues have impacts on the broader society and many SEs have an untapped potential to incorporate environmental concerns into their business models (Vickers, 2010), this definition can be broadened to encompass socio-spatial pathways aimed at increasing the impact of SEs in addressing environmental problems such as waste. Seelos and Mair (2017) also defined scalability as the ability of organizations to *“do more of what they are good at or do things better or both”* (page 31). They further added that *“scaling generates a stream of improvements and expansions of current activities, products and services. Individually these improvements may be unremarkable, but they accumulate and thus deepen and expand an organisation’s knowledge over time”* (Seelos & Mair, 2017:31). Crucially, while organizational growth is often considered in linear terms whereby an organization adds new resources (capital, people, technology) so that its revenue increases as a result, scaling may occur when revenue increases without a substantial increase in resources (Whatman, 2021). It may be thus linked to frugal practices whereby the use of scarce resources is maximized (Prahalad & Mashelkar, 2010).

In terms of mapping scaling strategies onto space, human geographers argue that scale is a way of conveying the idea that socio-spatial patterns, processes and structures not only vary from place to place but also can be hierarchically structured and differentiated (Jonas, 2006; Herod, 2011). If received scales (e.g. urban, regional, national) occupy fixed territorial hierarchies that correspond somewhat with state administrative boundaries, geographers nonetheless recognize that scalar strategies can involve state and non-state actors, governance arrangements and networks operating both within and beyond such boundaries. Here Cox (1998) makes a useful distinction between a firm’s or enterprise’s ‘spaces of

dependence' and its 'scales of engagement'. Whereas spaces of dependence refer to an enterprise's existing territories of operation (e.g., its customer base, infrastructure, buildings and related operations in a given place), scales of engagement are the wider networks and capacities it deploys in order to draw down resources into its operational territories. In these respects, places, territories, scales and networks are all integral to how SEs pursue different scaling (i.e., impact enhancing) strategies.

In this research scaling concerns any expansion of SE capacities, resources, networks and/or territories of operation provided that these help to meet specific social needs and boost social inclusion whilst promoting environmentally beneficial CE thinking and practice. This research is thus consistent with McLoughlin et al.'s (2009) understanding of how SEs measure scalability and growth by "*meeting prior unsatisfied social need, capability to deliver a superior social service of products and offer better value in the wider social sense to their target beneficiaries*" (page 155). In brief, this research aims to showcase that scaling does not always have to be measured by the accumulation of surplus monetary value or the expansion of products and markets. In overly focusing on the accumulation of monetary value, SEs could be, in fact, detracted from pursuing their social and environmental objectives. Given that SEs differ in terms of their scalability potential, the size of the markets for their goods and service and their territories of operation, the financial and social returns/impacts they generate differ as well.

It follows that there can be distinguished several types of scaling pathways, i.e., "*the routes which are followed to increase the reach of an innovation through different partnerships and approaches*" (The International Development Innovation Alliance - IDIA, 2017:13), and which are contingent upon the innovation-related sector, its target beneficiaries, and the spatial context. These may include the following: 1) **public pathways** (through government); 2) **commercial pathways** (through the private sector); 3) **hybrid pathways** (through both government and private sector) (IDIA, 2017:14). We can add to these scaling strategies **social pathways** whereby (social) support infrastructure enterprises facilitate the scaling processes as well as **territorial pathways** where funding streams, collaborative support structures, resources and policies become available at different scales of the state and corresponding quasi-governmental and non-governmental organisations (local, regional and/or national) (Cox, 1998). Scaling strategies can be further distinguished by vertical scaling, which occurs at the same location and involves an enterprise drawing down different resources and powers outside its immediate territory or place of operation, and horizontal scaling, which occurs when an enterprise stretches its activities and networks across different locations/spatial scales. In short, while vertical scaling concerns expansion of impact through replication by others operating in the same place (e.g., a district or city), horizontal scaling concerns changes

in policies and the institutional environment that may occur in the same place and/or at different geographical scales (e.g., local versus national) (IDIA, 2017).

Linked to this, but arguably less clearly spatial in content, there are also conceptions of scaling out and scaling up. While scaling out refers to replication/multiplication, e.g. wider adoption of an institutional or service/technological innovation at the same or different geographical scale, scaling up concerns innovation or development, e.g., an improvement of an existing provision or policy, which may have implications at the same place or at different geographical scales. There is also deep scaling whereby mind-sets and cultural roots are impacted in situ. Crucially, entrepreneurs may not be specifically associated with scaling up, out or deep as they may be simply seeking to expand their networks or access new resources in a particular place (Riddell & Moore, 2015).

*i. Scaling up: Improving existing practices and institutional regulations*

Studies reveal that various organizations can scale up by driving institutional change, which can be referred to as “any change in form, quality, or state over time in an institution, by interaction with policy makers, the general public or social movements” (Purtik & Arenas, 2019:964). More importantly, it is the possession of the political capital – i.e., capital that can boost an organization’s status and power (cf. 3.4) or access to political processes or state and governance capacities (i.e., political opportunity structures) at different scales (see Miller, 1994), that can disrupt institutions and subsequently shape societal norms, values and expectations (Xu & Ngai, 2011; Tarrow, 1998). More specifically, involvement in politics may enable SEs to legitimize their (innovative) goods and services.

Scaling-up can also concern impact maximization within the confines of an organization at a given place. This may involve growth of a SE and its social (circular) innovations, differentiation of services, as well as diversification of the current provision into new functions/products, possibly through the integration of activities that were previously performed outside the firm, thereby exploiting economies of scope (Doherty et al., 2009). An improvement of an existing product or a service can be referred to as an ‘incremental innovation’, which may help to overcome resource scarcity and boost competitive advantage of given enterprise in the market (Bhaskaran, 2005). There is also the concept of ‘architectural innovation’ whereby it is the architecture of a given product that changes, not its components (Henderson & Clark, 1990).

*ii. Scaling out: Impacting greater numbers*

Scaling out may refer to replication/multiplication in number of financially viable and profitable business ideas/SEs and associated social (circular) innovations beyond the confines of an organization and its existing place of operation, including across different geographical



scales. Unlike scaling up, which results in economies of scope, scaling out can facilitate the exploitation of economies of scale. This may include the creation of similar ventures or franchises, which concern

*"a contractual agreement by and between two parties, whereby one party (the Franchisor) extends the right to the other party (the Franchisee) to carry on an independent business under the trademark or trade name or band of the Franchisor and to receive sufficient privileged know-how, derived through the Franchisor's experience in operating such a business (...)" (Webber, 2012:20).*

Franchises require formalized relationships and may involve the creation of a liquid market for intellectual property, i.e., the type of market where transactions costs are low and intellectual properties may be subject to patenting or open sourcing, the latter facilitating faster diffusion of innovations (Lyon & Fernandez, 2012; Daniele et al., 2009). Crucially, SEs may pursue *social franchising* whereby business replication and expansion of SEs' value-adding services (and brand) enable to generate more social (and/or environmental) impact whilst maintaining sustainability. Contrary to commercial franchising, social franchising may require compensation of costs through public subsidies to address any productivity gaps in ventures offering work integration schemes (The Franchise Company, 2020). On the other hand, the pursuance of such labour-market policies in favour of public subsidies offers cost savings (e.g., in terms of reduced benefit claims) when compared to subsidies/universal credits that do not necessarily encourage proactivity and incentivize people to find work. Other benefits of franchising concern *"reduced risk, common brand, training, mutual learning"* (Daniele et al., 2009:169). Another possible way of scaling out concerns the formation of consortia enabling to pursue contracts for environmental services, as well as market penetration whereby better ways of commercializing a given product are in place, for example in niche markets. Scaling out may additionally concern a SE's ability to help more people in more places. Scaling out may, however, result in the loss of local focus, which is often associated with SEs embedded in local communities. It may also lead to diminished unique advantage of a given product or service that is being scaled-up.

### *iii. Scaling deep: Impacting hearts, mind-sets and cultural roots*

Scaling deep concerns strategies that can profoundly and positively impact mind-sets, norms, cultural roots and quality of relations in situ. This may occur through improved quality of a product or service and capacity building schemes, training (transformative learning), dissemination of good practice, or open-source sharing. In this research, scaling deep is also associated with the empowerment theory according to which *"disadvantaged groups have*

*power that can be built upon to address their concerns and ameliorate societal and community power imbalances, suggesting that the disadvantaged are not powerless in confronting societal forces or the power wielded by elite social actors”* (Hansen, 2009:16). Such empowerment whereby individuals’ hearts (values) and minds are transformed, can be linked to the ability of individuals to influence policymakers (e.g., through protest or advocacy), gain useful skills and access to resources, and/or implement social services such as creating support for disadvantaged women. In that sense it is linked to ‘scaling up’ whereby institutional laws and regulations may undergo changes in that they empower organisations to reach out into the wider community without changing their territories of operation.

Scaling deep may also refer to ‘translation’ whereby mainstream organizations are inclined to adopt lessons from alternative enterprises and their constituent economic spaces and social innovations (Sefang & Smith, 2007). Strategies promoting scaling deep may drive so-called ‘radical innovation’ or ‘disruptive innovation’ whereby a new product or service can significantly transform the existing socio-technical system or incumbent companies by replacing them with something new (Smith, 2007; Markides, 2006). While radical innovation tends to occur within companies and revolves around knowledge creation and successful commercialization of new products and services through better knowledge of customers, disruptive innovations are driven by organizations with inferior resources to competitors, and which combine different business models (Hopp et al., 2018). Such innovations are largely associated with ‘creative destruction’ (Schumpeter, 1911) whereby old structures are substituted by the new ones, usually of higher quality and lower cost to maintain high demand. In this research products of higher quality do not, however, necessarily imply lower cost.

### 3.2.1 Drivers and Barriers to Scaling

The existing literature on SEs and innovation capabilities has identified several key drivers and barriers (lock-ins) to scaling hybrid enterprise models that balance core values and profit goals. Although such barriers are especially significant for place-bound SEs (Vickers, 2010) and may be denoted as ‘missed value opportunities’ (see 4.4.2ii), they may also become windows of opportunity for scaling, especially if SEs can access resources, networks, and capacities beyond their immediate territories of operation. Below are highlighted some of the most evident drivers/barriers.

#### **Financial aspects and market structure**

Financial aspects greatly determine the emergence of new ventures, their functioning, as well as risk-taking behaviour and experimentation. In order to succeed, SEs usually need to ensure that they have diverse/hybrid income streams. Rowan et al. (2009) and Vickers (2010) noted

that SEs engaged in environmental activities are characterized by financial precariousness, which inhibits coverage of costs and reinvestment into social/environmental missions and ultimately scaling. There may be also many competitors in the market, including conventional firms, for example in the field of waste management (Vickers, 2010), which may prevent SEs from expanding their customer base. This is because SEs dealing with waste management are not equipped to deal with a diversity of waste streams the way conventional firms (pursuing economies of scale) are. SEs tend to, instead, focus on labour intensive waste collection and reuse (RREUSE, 2020).

### **Skills and capabilities**

Another driver/barrier to scaling concerns (lack of) availability of necessary skills and capabilities (and subsequently business acumen). Some of the key skills and capabilities associated with scaling include: managerial and decision-making skills; leadership skills; marketing skills; individual creativity; openness; ability to evaluate social/environmental impacts; relational capabilities (i.e., ability to network and form new, long-term relationships); ability to absorb new (external) knowledge (i.e., absorptive capacity); and ability to apply the gained knowledge in practice (Bridge et al., 2014; Riddell and Moore, 2015; Saunila and Ukko, 2012; Stahle et al., 2004) (cf. 3.3). In absence of these skills, SEs may find themselves in the so-called 'competency trap', which implies lack of, or limited, adaptability to external shocks by relying on past principles, tools, skills, and routines (Ahuja, 2016). In addition, SEs may display strong identity and culturally conservative business models, which may prevent them from adopting new practices. It can be also noted that all these skills are necessary so that SEs can comply with reporting requirements imposed by donors and subsidiaries (Sud et al., 2009).

### **Networks**

Linked to relational capabilities, multi-organizational and multi-scale (local, regional, national, international) networks (including policy networks) are important relational assets, which, once underpinned by trust, can help to orchestrate new resource configurations whilst merging different scales (see 3.3.6). This may involve links between SEs facing liability of newness and smallness (Stinchcombe, 1965; Baum, 1996) with more established SEs, the latter helping SEs to overcome those liabilities (Lechner et al., 2006).

### **Broader contexts**

Organizational structure, culture, and climate (Saunila and Ukko, 2012), as well as embeddedness in particular institutional/political contexts may likewise act as a barrier to scaling in case any specific policies, norms, regulations or market instruments do not support

(social-circular) innovations (cf. 3.3.1). Such *juridical/institutional lock-ins* may be also referred to as path-dependencies or ‘institutional ceilings’ (cf. Wigboldus et al., 2016). Wigboldus et al. (2016) additionally distinguished *formative lock-ins* (e.g., in case there is a dominant ‘culture of consumption’, economies of scale and mechanisms behind marketing); economic lock-ins (e.g., in case market instruments limit scaling); and *physical/biotic lock-ins* (e.g., climate change).

The above drivers and barriers to scaling can be examined through a combination of theories discussed in the subsequent section.

### 3.3 An Integrated Theory-driven Dynamic Capabilities Approach to Scaling

This section presents an integrated theory-driven approach to scaling in which dynamic capabilities provide an overarching concept for a number of subtheories that, in complementing it, help to better explore the capacity of SEs to scale their impacts. Dynamic capabilities are an essential component of innovative processes aimed at joint value creation, delivery, and capture in a value network whereby network members engage in complex dynamic exchanges that help to generate value outcomes (Leih et al., 2015). Teece et al. (1997:516) defined dynamic capabilities as an organization’s ability to *“integrate, build and reconfigure internal and external competences to address rapidly changing environments and to achieve new and innovative forms of competitive advantage”*. As Teece (2007:1319) further noted: *“Enterprises with strong dynamic capabilities are intensely entrepreneurial. They not only adapt to business ecosystems, but also shape them through innovation and through collaboration with other enterprises, entities, and institutions”*. This concept is thus linked to organizations’ adaptive capability whereby dynamic capabilities enable organizations to cope with external pressures, including institutional and technological uncertainty in ever-changing environments. In addition to adaptive capability, Wang and Ahmed (2007) distinguished two other component factors of dynamic capabilities, namely absorptive capability and innovative capability, which further enable to sustain a given organization’s long-term performance and may be crucial to scaling CE practices. Absorptive capability refers to the ability of an organization to *“recognize the value of new, external information, assimilate it, and apply it to commercial ends ... the ability to evaluate and utilize outside knowledge is largely a function of the level of prior knowledge”* (Cohen & Levinthal, 1990:128). Innovative capability concerns an organization’s ability to *“to develop new products and/or markets, through aligning strategic innovative orientation with innovative behaviours and processes”* (Wang & Ahmed, 2007:38). Interestingly, Hart and Sharma (2004) noted that companies that are more open and engage with ‘fringe stakeholders’ (i.e., those with less voice and power) might become more aware of new issues, spark competitive imagination, and hence develop dynamic capabilities.

While previous research investigated the role of dynamic capabilities in facilitating the development of SEs (Bhardwaj & Srivastava, 2021), in this research this theoretical approach helps to explore the capacity of SEs to sense and seize opportunities, and to reconfigure their resource base, so that CE development can be fostered. Crucially, a number of subtheories discussed below fill specific gaps that dynamic capabilities cannot address alone, enabling a particular focus on the parts of the inquiry that are not captured by dynamic capabilities (e.g., the role of particular network attributes or social capital, underpinning network relationships, in scaling SE-driven impacts). Some subtheories such as natural resource-based view theory (3.3.2) are, in turn, complemented/enriched by the dynamic capabilities perspective.

### 3.3.1 Contingency theory

Dynamic capabilities, which underpin the capacity of a SE to sense, seize and reconfigure their resource base for the CE development, are contingent upon relevant resource infrastructure (i.e., the underlying attributes of a given resource within the organization), functionality of a given resource (which is, in turn, contingent upon appropriate technical or business skills of team members when designing a product and/or a service), as well as the broader external conditions, which can sustain dynamic capabilities. This is where contingency theory is deemed relevant. Contingency theory is an organizational theory according to which there is no one best way to make decisions and run a company due to embeddedness of a given organization within the broader external and internal contexts, places and environments that may be highly dynamic (Donaldson, 2001). A related approach, the 'neo-contingency approach', in turn shows how external environment, local community contexts and local contingencies, including leadership style and social capital, may ultimately impact those local community development trajectories that are driven by community-led social ventures (Roy et al., 2015). In using social capital as a contingent variable (cf. 3.3.9) such an approach additionally goes beyond the concept of networks understood solely as inter-organizational relations. Managers of organizations are thus required to display some degrees of flexibility when it comes to employing a particular growth/scaling strategy in a specific institutional, cultural, spatial and/or socio-economic context. There is, however, a risk in portraying respective scaling strategies as unique, idiosyncratic, context-dependent, and place-specific. This is because such an approach may discourage recognition of common trends and wider development pathways. In the light of above approaches, this research employs diverse place-based case studies to extract key themes and trajectories related to scaling and place them within a broader scaling framework, which can then be applied to different contexts provided that cause-effect relationships and trade-offs are considered when imagining new possibilities. The scaling

framework proposed later in the thesis is simultaneously grounded in, yet adaptable to, diverse places/spatial contexts (see 8.2).

### 3.3.2 Natural Resource-based View theory

Dynamic capabilities perspective has benefited from the natural-resource-based view (NRBV) theory, which helps to explain how dynamic capabilities emerge. NRBV can, in turn, benefit from dynamic capabilities research due to the latter's emphasis on adaptation in dynamic markets (cf. Hart & Dowell, 2011). Both concepts are content-oriented and emphasize organizational performance.

Natural-resource-based view (NRBV) is an extension of resource-based theory (RBT). According to the RBT, which emphasises resources and capabilities as (internally) accumulated at the organizational level, "*value is found if the resource increases customers' willingness to pay or lowers their cost*" (Hart & Dowell, 2011:1465). Such an approach primarily concerns an economic value and postulates that both tangible and intangible resources must be not only heterogeneous/idiosyncratic and immobile (i.e., difficult to procure by competitors due to high costs of developing, acquiring, or using them), but also "*valuable, rare, inimitable, and supported by tacit skills or socially complex organizational processes*" (Hart & Dowell, 2011:1465). Under such conditions, it is possible for an organization to achieve a competitive advantage. NRBV complements RBT in that it acknowledges the importance of extra-economic values (i.e., social and environmental) and interactions between an enterprise and the broader and rapidly changing (natural/physical) environment in which it is embedded. Considering the latter, this is where NRBV has benefited from dynamic capabilities research and informs how dynamic capabilities emerge, for example out of the need to increase circularity to address the problem of resource depletion. NRBV distinguishes the following three central strategic and environmentally proactive capabilities: (1) *pollution prevention*; (2) *product stewardship*; and (3) *sustainable development*, all of which help to achieve *sustainable competitive advantage* and whose emergence and development is contingent upon the broader physical and social environments. Understanding how such competitive advantage can be yielded through the development and the use of relevant resource base and (dynamic) capabilities thus improves the understanding of dynamic capabilities and how they emerge. Product stewardship is especially relevant in the context of the CE as it takes into scrutiny the entire life cycle of a given product. Similarly, reduction of production inputs and internalization of externalities of one company by another (i.e., pollution prevention) can be understood in terms of the CE. Lastly, the notion of sustainable development as a strategic capability may help to explain how particular CE practices may (or may not) render sustainable value outcomes. Such an approach considers constraints created by the natural environment, e.g., resource depletion, which may

threaten resources and capabilities in a given organizational setting. NRBV could be, however, expanded to include considerations of an organization's relationship with external stakeholders (cf. 3.3.6) and the socio-economic drivers of poverty and inequity.

### 3.3.3 Transaction-cost theory

When forging interorganizational linkages in a given socio-spatial and temporal context, organizations incur transaction costs, which are influenced by the broader ecosystem conditions and may affect SE scaling strategies. Recognizing such costs is thus important when making decisions about establishing collaborative relations for the local development of the CE. Linked to this, this research touches upon the premises of the transaction-cost theory, which considers both external and internal costs associated with practices such as management of contractual relationships that includes the costs of finding a supplier, purchasing and quality monitoring (Williamson, 1979). Such costs are subject to variations depending on organizational characteristics such as size of an enterprise or levels of trust between parties involved in exchange (Murphy, 2006), frequency of transactions, environmental uncertainty/market instability (i.e., necessity to adapt to challenging conditions), opportunism, and asset/resource specificity (i.e., the degree to which an asset can be used for other purposes) (Auster, 1994; Williamson, 1985). Crucially, such costs may be higher in case a given organization lacks necessary dynamic capabilities and needs to acquire them in order to seize opportunities and reconfigure their resource base with a view to generate economic, social and environmental benefits, including improved organisational performance (cf. Gulbrandsen et al., 2017).

Transaction-cost theory also adopts the term Fundamental Transformation to describe a process whereby opportunistic behaviours are lessened due to the transformation/reduction of many competitors through long-lasting investments in specific assets that may lead to a bilateral monopoly (Williamson, 1985). For example, one company could become a buyer of another company provided that they receive significant investment. More importantly, transaction cost theory contends that decision-makers manifest bounded rationality as they tend to make opportunistic and self-centred decisions (also known as behavioural uncertainty) (cf. 3.3.5). This is the result of high costs associated with collecting and judging new information to make more informed/rational decisions.

### 3.3.4 Theory of Change

This research also draws upon the Theory of Change framework (Rogers, 2014), which is a systematic approach centered around 'pathways of change' in a particular context, helping to illustrate how and why a change should happen. It consists of the following key categories:

1. **Resources:** Tangible (funding, office space, equipment) and intangible (people, skills, knowledge, contacts, reputation) resources needed to realize SE activities.
2. **Activities:** Operating activities that transform resources into outputs.
3. **Outputs** of SE activities: E.g. the number of food pouches distributed. SE outputs can also be intangible, e.g. economic reinsertion of the long-term unemployed through SE, reduction in the number of homeless people in a city or neighbourhood.
4. **Outcomes** of the SE activities: Short-term (1 to 3 years) and long-term (4 to 6 years) benefits stemming from above-mentioned outputs. In the short term, it may concern increased calorie intake by a family and subsequently improved family health, productivity and a stable job a few years later.
5. **Impact** of SE activities: Long-term (7 to 10 years) benefits stemming from above-mentioned outcomes. For example, an individual may benefit from job security, lifelong employment, and overall increased quality of life for him/herself and his/her family members. At a higher scale of analysis (e.g., regional or national level), the impact of a given SE may translate into decreased dependence on the government welfare system and subsequently decreased government expenditures for that issue. Nevertheless, this may turn government's attention from addressing and/or providing more support to tackle a given problem (e.g., food insecurity) (Kickul & Lyons, 2016).

This approach underpins mapping of resource flows, including production inputs, stakeholders (4.4.2i), and desired (value) outcomes (including value opportunities, 4.4.2ii), hence processes that facilitate identification of potential resource recombinations and evaluation of the capability to do so (including capability to acquire necessary resources). Those processes are necessary in order to inform an entrepreneur on how to achieve desired and valuable outputs, outcomes and impacts. The above components are integral to the Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) Framework (8.2) and ISCIRVIS Toolkit (8.3).

### 3.3.5 Decision-making theories

Broadly defined as the outcome of *“many layers upon layers of cognitive structure on top of the biophysical components”* (Hofstadter, 1979 in: Ostrom, 2005:11), human decision-making underlies the pursuit of different growth/scaling strategies. It is subject to different factors such as past experiences, degree of commitment, outcomes, age and socio-economic status, a belief in personal relevance, cognitive capacities, path-dependencies, education, or work experiences (Kozioł-Nadolna & Beyer, 2021). According to Rustichini et al. (2016) who integrated personality and decision theory, cognitive skills are integral to an individual's personality, yet personal traits such as ambition can likewise determine certain behaviours



among entrepreneurs (Borghans et al., 2008). Such theoretical approaches are, nonetheless, criticized for inconsistency, especially given that leadership styles are context-specific (Aldrich & Zimmer, 1986). Moreover, social entrepreneurs should not be viewed as rational beings who are interested only in profit-making. There is hence a need for an approach that embeds economic behaviour in broader social, relational and cultural structures (e.g., family circles that may likewise affect decisions as to whether set up or upscale a venture). This is where the concept of dynamic capabilities is relevant because dynamic capabilities may not only have an impact on the make-or-buy decision (and hence on the decision as to whether incur certain transaction costs, cf. 3.3.3), but they can also offer a new set of decision options for an organisation, and which have the potential to improve organisational performance. As Drnevich & Kriauciunas (2011) noted, dynamic capabilities can *“improve upon the contribution of ordinary capabilities by extending existing resource configurations in ways that result in entirely new sets of decision options”* (p. 258).

### 3.3.6 Network theory<sup>4</sup>

Networks have become an important avenue of research in the field of (social) entrepreneurship (cf. Brudel & Preisendorfer, 1998; Certo & Miller, 2008; Webster & Ruskin, 2012). As Hervieux and Turcotte (2010) noted: *“there is evidence of many collective, network forms of enterprise in social entrepreneurship, and social entrepreneurship has often been discussed as partnerships and alliances between actors of different sectors and the mobilization of these actors towards a common goal or mission”* (page 183). Various studies have also associated networks and collaborative learning with innovative processes (cf. Purтик & Arenas, 2017). Likewise, geographers recognize that scalar strategies (e.g., political networking and lobbying) are often constructed within and through networks, which can stretch far beyond the immediate territory of operation of any given enterprise or organisation (Jonas, 2006). Understanding the role of both formal (i.e., supported by legal agreements and contracts) and informal (i.e., concerning friends and relatives) networks formed around SEs hence opens up a window of opportunity to better reflect on the possible local development trajectories in the CE, and more specifically, on the creation, diffusion, dispersion and distribution of social-circular practices/innovations (and associated value-impacts) in and across particular places and spatial contexts.

Building networks and links to various actors can help SEs to work at many overlapping or integrated scales and access (often at a relatively low cost) those (in)tangible resources that

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<sup>4</sup> Some parts of this subsection were published in conference proceedings – Lekan et al. (2021).

are integral to in situ scaling and continual operations upon which scaling is contingent, e.g., market creation for SEs' products and services or dynamic capabilities (Lipnack & Stamps, 1994; Power to Change, 2018; Daniele et al., 2009). In short, connections to diverse network actors (be these public, private or social) enable SEs to access pools of skills, knowledge, ideas, reputation, referrals, financial capital and labour, all of which are subject to (non-)monetary transactions and exchanges. Public sector organizations, in turn, benefit from working in partnership with SEs by commissioning social/environmental value-driven services from them. Corporations, on the other hand, may take advantage of SEs' close ties to communities, boost their corporate image and legitimacy, develop new products, and increase both market penetration and public awareness of issues being tackled by SEs (Lyakhov & Gliedt, 2016; Setanidi & Crane, 2008). There is, however, a risk of SEs being subject to co-optation by businesses in case they overly rely on private companies for support (e.g., funding) (Rothfuß & Korff, 2015; Phillips, 2012).

Overall, the formation of inter-organizational and cross-scalar network relationships is contingent upon aspects such as *"necessity/resource scarcity, asymmetry, reciprocity, efficiency, stability and legitimacy"* (Oliver, 1990:242). Such collaborative ties may be homophilous meaning that they are formed between organizations sharing similar missions and governance structures – an aspect that may foster innovations (Setanidi & Ryan, 2007; McPherson et al., 2001). Crucially, partnerships between mission-driven enterprises and public/private sectors display variegated forms of (1) control/entities governing decision-making, (2) degrees of formalization (they may be underpinned by formal/contractual and informal governance mechanisms), and (3) degrees of dependency on external funds; yet all these aspects impact scaling pathways (Gazley, 2008; Lyakhov & Gliedt, 2017). Studying inter-organizational networks and networking capabilities is also crucial when it comes to their impact on a given organization's network-oriented dynamic capabilities (i.e., sensing, seizing and transforming), which cross organizational boundaries (Alinaghian & Razmdoost, 2018) and underpin innovative processes within an organization, ultimately impacting organizational performance. For example, networking capabilities (i.e., the ability to leverage network relationships) are necessary for identifying relevant actors within a given network (sensing) and establishing (in)direct relationships is crucial when procuring necessary resources and skills (including dynamic capabilities) whilst integrating, building and reconfiguring internal/external resources and competences.

In any case, influenced by a range of disciplines and theories, research on networks does not have a core theory that could result in a clear set of approaches to examine specific phenomena (Hoang & Anotonic, 2003). The following subsections introduce several

theoretical approaches and concepts helping to examine strategies for scaling social-circular impacts through networks and in particular places.

### 3.3.6.1 Social Exchange theory and (resource) (inter)dependence, complementarity and coopetition

A popular approach that provides a foundation for a social network analysis concerns social exchange theory, which postulates that individuals weigh the costs and benefits of an interaction that involves exchange of (in)tangible resources. Crucially, intangible assets such as companionship/reputation/referrals are contingent upon social interactions. Such exchanges are thus characterized by inter-dependence and embody aspects such as power, trust and reciprocity (Dijkstra, 2015). Interestingly, Willer (1999) distinguished strong, weak and equal types of network power structures depending on the payoff differences between respective nodes. Concerning reciprocity, reciprocal exchanges between two individuals/entities can lead to conditional cooperation (Laland et al., 2000). However, if *conditional cooperators* are surrounded by too many *rational egoists*, such cooperation may be doomed to collapse (Ostrom, 2005). Moreover, given that it is difficult to make a distinction between social and economic exchanges, social exchange relationships have been classified as *reciprocal and negotiated* (terms of the exchange are negotiated), *productive* (A and B contribute for either to benefit), *direct* (A and B directly benefit each other) and *indirect* (actor B can reciprocate a benefit from A by passing on benefits to C) (Molm, 1997).

High reliance of SEs on external actors also corresponds with resource dependence theory, which postulates the need of organizations for cross-sectoral partnerships and joint actions in order to obtain necessary resources, fulfil their organisational missions and maximize/gain power in an uncertain environment wherein “*probabilities of specific actions leading to outcomes are unknowable*” (Ostrom, 2005:49; Salancik & Pfeffer, 1978; Auster, 1994; Xu & Wong-Kim, 2015). In short, as organizations are driven by the desire to gain power and influence, they seek to maximize the dependence of other entities upon them whilst attempting to minimize their dependence on other organizations (Oliver, 1990). Such dependence on resources is shaped by the broader and ever-evolving spatial, institutional and structural contexts and various organizational process factors (Xu & Wong-Kim, 2015).

In reference to resource-based view (3.4) and knowledge-based view theories (Bouncken et al., 2020; Grant, 1996; Harrison *et al.*, 2001), organizations may also collaborate to complement each other with technologies, knowledge/expertise, products and services (Rondinelli & London, 2003). Garcia-Castro and Aguilera (2015) noted that multi-stakeholder collaboration surrounding resource complementarities can result in incremental value creation and

appropriation. Such collaborations are, nonetheless, rather turbulent as they are usually underpinned by complex negotiations, bargaining and control, especially when it comes to creating (shared) value that matches other's expectations and appropriating value outcomes. For example, there may be significant power differences in terms of variegated levels of expertise among some alliance partners whereby some of them may possess disproportionately higher 'expert'/bargaining power and may be better in absorbing knowledge (Ozmel et al., 2017; Maloni & Benton, 2000).

SEs may interact with other organizations with only partial congruence of operational territories and interests. Such collaboration of organizations with direct competitors is termed as 'coopetition' and can help them to achieve/sustain long-lasting competitive advantage (Dagnino & Padula, 2002). Mariani (2007) noted that policy makers have the power to create favourable conditions to enable coopetition among diverse economic actors. Nonetheless, while coopetition may help to promote resource complementarity and reduce costs by enabling coopetitors to effectively share knowledge, some of the challenges concern lack of trust (see 3.9.6), different needs, equity in risk and uneven distribution of control when competing and exploiting the (co-)created knowledge on (new) products and services in the same market. These aspects may ultimately decrease organizational performance. Bouncken et al. (2020) found that it is under such high levels of market overlap (a term denoting a relative competitive positioning of alliance partners) that partners' expertise stimulates innovation-related value creation (including common benefits). In case of high levels of perceived competitive intensity, which are proven to drive managers' decisions, partners' expert power is, nonetheless, negative for innovation-related value creation. The organizations' competitive position, and/or perception thereof, may be thus a source of tension that can lead to instability, over-protectiveness and selective sharing of knowledge (Bouncken et al., 2020; Raza et al., 2014).

### 3.3.6.2 'It Takes a Village to Raise a Child': An Ecosystem Approach to SE Networks

Roundy (2017:1260) used the adage "*it takes a village to raise a child*" to account for a diversity of actors within a given entrepreneurial ecosystem that influence the emergence and development of SEs. Similarly, Salancik (1995:355) stated that: "*There is a danger in network analysis of not seeing the trees for the forest. Interactions, the building blocks of networks, are too easily taken as given*", especially when calling to focus not solely on the atomistic study of actions of particular organizations, but instead on the way organizations' actions are organized. Understanding the broader network dynamics is even more important given that networks are dynamic, and hence actions enacted by one network member can (in)directly impact other network members. And yet, many studies focus on individual entrepreneurs' networks rather

than the broader socio-economic, political and cultural ecosystem (comprising outside actors, networks, organizations, institutions and territories) in which they are embedded (Witt, 2004; Roundy, 2017). This research thus adopts the broader ecosystem approach to networks by positioning respective SEs and their networks within a broader ecosystem wherein SEs' ties can be viewed as *veins underpinning circulatory systems* and important transmission channels for the flows of tangible and intangible resources across the capitalist (i.e., formal/regulated) and alternative (i.e., informal/unregulated) economic spaces (cf. 2.5 and Chapter 5). Crucially, when exploring the inter- and dis-connectedness of particular ties, this research seeks to better understand how barriers to scaling CE practices could be jointly overcome.

Since SEs engaged in CE practices tend to view waste as a resource by utilizing second-hand resources or by-products from other organizations as production inputs for their production processes, the adopted approach is also consistent with the principles of industrial ecology – the field of study focused on trying to mimic a natural system by reusing resources (Chertow, 2018; Deutz & Lyons, 2015). By analogously applying the principles of industrial ecology to the *circular social enterprise ecosystem* context, this research additionally conforms to a systems thinking approach, which is at the core of CE concept and recognizes system's complexities and broader network interactions (Senge, 1990).

### 3.3.6.3 Social Network Theory: An Overview of Key Concepts and Theories

This subsection introduces a number of interlinked network constructs, which are employed in this study to better understand entrepreneurial processes and scaling strategies of case study SEs. They include both structural aspects such as network heterogeneity, size and density, positionality and centrality, as well as non-structural features such as nodes' attributes, geographic location and the broader institutional terrain. All these aspects may alter flows of, access to, and quality of, information, resources and control thereof (Owen-Smith & Powell, 2004). Crucially, these aspects may, in turn, influence performance and legitimacy of organizations, and thus firm-level outcomes (Granovetter, 2005). More specifically, social structure and social networks can affect economic outcomes such as "*hiring, pricing, productivity and innovation*" (Granovetter, 2005:33) and help to explain power dynamics underpinning structural network configurations.

#### *i. Network heterogeneity, Tie content and Node attributes*

Network heterogeneity broadly refers to networks where there is a diversity of nodes that differ in terms of their functions and utility (Hoang & Antoncic, 2003). This has implications for the diversity of behaviours and activities within a given entrepreneurial network. This research thus assumes that high network heterogeneity can lead to more circularity, depending on the

network content and the broader context in which it is embedded. While the content of ties (i.e., tangible/intangible resources flowing between nodes) and the content of nodes (i.e., attributes/characteristics of network actors, including their capabilities, key assets and perceptions on network relations) are not structural network characteristics per se, they influence, and are influenced by, network heterogeneity. Stated differently, some of the endogenous variables that may determine, to varying degrees, network heterogeneity concern intra-organizational differences such as different size, antecedents, age, development stage (which is in turn often correlated to size) (Greve & Salaff, 2003), demographics, gender (Chell & Baines, 1998), ethnicity, capabilities, mission or motivations of members of organizations under scrutiny. These variables translate into differential organizational needs and forms, which determine and guide formation of particular ties and hence resource flows (e.g., financial capital, emotional support, advice, reputation). They also help to challenge the assumption that organizations with larger and more diverse networks are not necessarily more successful than those with less diverse connections (Witt, 2004). This is because specific organizations may have different intentions, aspirations and capabilities, among other factors. Crucially, variegated attributes of network resources (i.e., assets circulating within a given network) may influence organizations' network-oriented dynamic capabilities (i.e., sensing, seizing and transforming). Following Alinaghian and Razmdoost (2018), *"rarity affects the effectiveness of sensing, complementarity affects the effectiveness of seizing, accessibility and usability affect the efficiency of seizing, scalability and appropriability affect the effectiveness of transforming, and finally utility and versatility affect the efficiency of transforming"* (p.79). Some of those attributes correspond to natural resource-based view theory postulating that (in)tangible resources should be heterogenous, valuable and rare (cf. 3.3.2).

Research shows that the more heterogeneous a network structure is, the more heterogeneous knowledge it possesses. Heterogeneous network content may be thus associated with greater innovative potential regardless network density (Rodan & Galunic, 2004; cf. 3.9.2ii). High network diversity can also offer more opportunities for vicarious learning, which is about observing how other enterprises thrive in ecosystem (Roundy, 2017). Vicarious learning is linked to absorptive capacity logic in the sense that accumulated experience can help to identify and use knowledge from outside the ecosystem, thus helping ventures to overcome the liability of newness (Posen & Chen, 2013). The ability to absorb knowledge is, however, organization-specific in that particular organizations may not always be capable of, or even willing to, absorb knowledge from other actors in the network, and hence innovate (e.g., due to limited relational capabilities, time constraints or unwillingness to collaborate with those who possess knowledge).

An important attribute of ties that may have implications for the diffusion of CE thinking and practice concerns their strength. Granovetter (1973) distinguished strong and weak ties depending on the “*level, frequency and reciprocity of relationships between persons*” (Aldrich & Zimmer, 1986:11) and more broadly, social capital that reflects social proximity. Strong ties are characterized by high time and energy investments to build and maintain them. This is contrary to weak ties that may be the result of resource scarcity such as limited time and capabilities to build profound connections. It is ultimately the levels of emotional underpinning that determine whether ties are strong or weak (Granovetter, 1973). Crucially, while strong ties are highly reliable, Aldrich and Zimmer (1986) noted that strong ties may lead to “*extraneous socio-emotional content into information exchanges, clouding their meaning*” (page 19). Linked to this, Granovetter (1985) noted that weak ties may be a valuable source of new and diverse (rather than in-depth) information and may be especially useful in later stages of the venture development. They may be associated with ‘open’ channels that enable knowledge spillovers (Owen-Smith & Powell, 2004).

ii. *Network Size and Density*

Network size is the number of direct links between a central actor and other actors. Network size is not necessarily dependent on the network diversity as it is rather contingent on absorptive capacity and networking skills of particular actors in a given network (i.e., internal attributes of network nodes), which may, nonetheless, lead to higher heterogeneity (Witt, 2004). Studies reveal that in case networks are too large, and thus arguably very costly to maintain, they may be characterized by inefficient flows of information and ‘overembeddedness’ (Uzzi, 1997:58). Network size may thus have implications for the diffusion of CE thinking and practice across the city, yet this needs to be analysed concomitantly with other factors such as strength of ties.

Network density refers to the number of paths (ties) between any two nodes in relation to the maximum number of possible connections and the extent of cluster formation (Bavelas, 1948; Witt, 2004). It helps to capture how many actors operate in particular locations and is related to strength of ties (see 3.9.6). For example, studies show that the more dense and interdependent networks are, the fewer negative and potentially harmful ties/social capital exist within the network (Hansen, 2009). Such network structures can reduce uncertainty, lower a level of conflict and transactions costs, and promote mutual understanding through frequent interactions and mutual obligations (Uzzi, 1997; Sandström & Carlsson, 2008; Burt, 2000). Such notion of embedded relations was described by Coleman (1988) in terms of ‘closures’. On the other hand, organizations that are limited to their own familiar circles may experience *relational inertia* by being ‘trapped in their own net’ (Gargiulo & Benassi, 2000),

which prevents them from seeking new opportunities and pursuing innovations necessary to promote a needed policy change (Sandström & Carlsson, 2008). This research hence explores the extent to which higher density implies that the chances of adopting/diffusing CE thinking and practice are higher.

*iii. Positionality as a network construct: centrality closeness and betweenness*

Positionality of actors in a given social network configuration is an important network characteristic that has an impact on resource flows, which, in turn, affect organizational performance and entrepreneurial outcomes (Hoang & Antonic, 2003; Burt, 1992). Given that positionality (coupled with network heterogeneity) can facilitate/constrain access to necessary resources (thereby influencing organizations' ability to generate social-circular innovations), it is associated with the concept of 'power' (cf. Aldrich & Zimmer, 1985; Ostrom, 2005).

Network centrality is defined as the total distance of a central actor to others in a network and the total number of other nodes a central individual can reach (Aldrich & Zimmer, 1986). It indicates the power to access (or control) vital resources through direct and indirect ties (Hansen, 2009; Hoang & Antonic, 2003) wherein nodes are "*an obligatory passage point for the information flow through a network structure*" (Owen-Smith & Powell, 2004:10). Actors with high degree of centrality (i.e., extensive links to other parts in a network) can be hence powerful communication channels between disconnected actors (Galaskiewicz, 1985).

In case particular network members (the so-called 'spreaders') can quickly reach one another, this attribute is called centrality closeness – i.e., "*the minimum time until the arrival of something through the network*" (Borgatti et al., 2018:334). Centrality betweenness, in turn, refers to "*the number of times a given node falls along the shortest paths between two other node*" (Borgatti et al., 2018:332), hence signalling those central actors that are located on the information paths between other network actors, and implying the ability of a given node to "*absorb (or interrupt) information flows through tightly sealed network pipes*" (Owen-Smith & Powell, 2004:13). Stated differently, centrality betweenness enables to detect bridging organizations/"the gatekeepers"/brokers linking one part of the network with another (see below).

*iv. Structural holes and Brokerage*

Brokers are organizations/institutions connecting sparsely positioned actors that are nonredundant sources of information and would otherwise remain disconnected/only indirectly connected through the so-called 'structural hole' (Ahuja, 2000; Burt, 1992). By forming bridges across structural holes, brokers may thus increase network density so that information transfer and diffusion of information/innovations across particular spaces is more



efficient (Long *et al.*, 2013; Rogers, 2003). In an urban context, Storper (2013:120-125) argues that there is a close relationship between bridging and economic performance such that economically successful cities tend to be those that develop strong community-based networks and institutions for resolving conflicts between diverse economic actors. Linked to this, brokers may help to improve organizational performance and foster/diffuse innovations through ties to many diverse, isolated/sparsely linked actors (Alder & Kwon, 2002). Nonetheless, in case network clusters are rich in heterogeneous knowledge, the brokerage tends to be less productive (Long *et al.*, 2013).

Further referring to brokers' positionality, brokers may occupy multiple roles such as being *expert power partners* who possess highly desirable knowledge and skills (French & Raven, 1959). They may also be a role model to others (possibly influencing others' socio-economic position and reputation) (Aldrich & Zimmer, 1986). On the other hand, brokers who hold *expert power* may use the information and knowledge they possess to the detriment of some organizations whilst empowering others (Marsden, 1982). When controlling information flow, brokers need to be hence regarded as trustworthy and impartial to be able to forge new value-adding connections and try to bring innovative ideas forward (Burt, 2004; Fernandez & Gould, 1994). In this sense, brokers' positionality is not necessarily the principal factor affecting the way they are perceived because brokers' attributes such as pertinence to private sector may evoke feelings of 'partiality' due to perceived short-sightedness and profit-motives of businesses (Milne *et al.*, 1996). As Fernandez and Gould (1994:1461) noted, "*most organizational actors in the private sector are a priori seen as pursuing particularistic interests*". It may be also costly to maintain bridging ties due to limited resources (e.g., time, lack of geographical proximity, external shocks, or different personalities). Long *et al.* (2013) additionally highlighted that brokers may become overwhelmed with the amount of information to be processed, and hence may require external support. Linked to this, Burt (2001:56) suggested conjoining structural holes and closure in a productive way. He noted that "*while brokerage across structural holes seems to be the source of added value, closure can be critical to realizing the value buried in the structural hole*" so that organizational performance can be enhanced. Crucially, aspects such as network density between groups and the structure of bridges need to be embedded in appropriate (urban and regional) institutional structures in order to deliver benefits for particular places (Storper, 2013).

This research identifies and examines brokers who (could potentially) accelerate the development of inclusive CE in Hull (Chapter 6). There is, in fact, scarce research on the roles of brokers with regards to circular governance at the city and regional level (Ciulli *et al.*, 2020; Fischer & Newig, 2016; Gliedt *et al.*, 2018). In exploring how brokers could foster collaboration

between more environmentally- and socially-oriented SEs (6.5), this research also addresses the research gap on how brokerage can create social and environmental value (Saunders et al., 2019; Stadler & Probst, 2012).

v. *Positionality: Spatial (dis)proximity*

Positionality may be understood in terms of not only social but also geographical (dis)proximity that tend to mutually reinforce one another. Crucially, spatial location is rarely incorporated into the studies of networks (Sayles & Baggio, 2017). And yet, considerations of geographical proximity are important from the perspective of the CE. This is because circular activities are often deemed sustainable when they occur at the local level (Stahel, 2013). Moreover, co-location may facilitate information and knowledge spillovers (Breschi & Lissoni, 2001) and may positively impact the quality of relationships (Lechner & Dowling, 2003; Belso-Martínez et al., 2017). Given that geographic proximity and organizational forms have significant impact on the direction and flows of information across a given network (Owen-Smith & Powell, 2004), in this research considerations of spatial proximity help to examine impacts of spatially differentiated/proximate ties on the performance of SEs and ultimately development of inclusive CE.

#### 3.3.6.4 Population Perspective

Population perspective helps to better explore interorganizational relations for scaling and explain the emergence/decline of organizations (Aldrich et al., 1979). This perspective accommodates four evolutionary processes: *variation, selection, retention, diffusion and the struggle of existence* (Aldrich et al., 1984). *Variation* refers to a diversity of available opportunities and resources that can help to set up a business and lead to intentional/non-intentional changes in dominant routines, competencies and forms. *Selection* concerns multiple criteria based on the broader conditions such as competitive pressures/market forces to which organizations need to adapt to survive. *Retention* is about managerial and technological capacities that enable to procure necessary, yet scarce, resources and are essential to the preservation, duplication and reproduction of organizational structures. *Diffusion and struggle over existence* occurs through ties between respective actors and is contingent upon the presence of collaborative behaviour enabling to leverage resources and opportunities. Overall, this perspective helps to explain how organizational forms are shaped by, and adapt to the impacts of, external environmental forces over time. Similarly to dynamic capabilities perspective, the population perspective recognizes the need to sense opportunities for creating, extending and modifying resource base in the light of existing resources, competencies, skills and broader external conditions. It enriches dynamic capabilities by helping to better explain the emergence/decline of organisations. One of the

disadvantages of this approach is that it overlooks cognitive capabilities of entrepreneurs that may impact scaling strategies.

#### 3.3.6.5 Innovation Diffusion in Networks

Diffusion of innovation theory (Rogers, 2003) complements dynamic capabilities approach in that it helps to better explore the potential of respective actors within the broader SE landscape to influence the uptake and diffusion of social-circular innovations. Rogers (2003) distinguished *innovators*, *early adopters*, *early majority*, *late majority* and *laggards* as different types of adopters of innovations, and which led him to outline the following perceived attributes of a given innovation that may determine its adoption/diffusion: *relative advantage* (i.e., the degree to which an innovation is perceived as being better than the idea it supersedes), *compatibility* (i.e., the degree to which an innovation is consistent with the existing values, past experience and needs of potential adopters), *complexity*, *trialability* (i.e., the degree to which an innovation could be experimented at limited basis) and *observability* (i.e., the degree to which the results of an innovation are visible to the adopters) (Scott, 2008). Acknowledging these aspects can help to better determine the feasibility of scaling respective social-circular innovations.

#### 3.3.6.6 Social Capital theory versus Networks and Power Relations

Social capital theory is another popular research theme in the field of network analysis and entrepreneurship (Anderson & Jack, 2002; Kim & Aldrich, 2005; Strobl et al., 2014). As various scholars have adjusted this concept to their own research needs, conceptually, social capital is rather elusive/dynamic and vaguely defined (Sabatini, 2009). Anderson and Jack (2002) conceptualized social capital as a 'relational artefact' embedded in social networks and a "*process that creates a condition of social capital*" (page 193). Social capital is also understood as "*shared norms, values, beliefs, trust, networks, social relations, and institutions that facilitate cooperation and collective action for mutual benefits*" (Bhandari & Yasunobu, 2009:488), or "*the glue that binds to create a network and also the lubricant that eases and energizes network interaction*" (Anderson & Jack, 2002:193). By acting as a lubricant, social capital facilitates flows of, and provides access to, information and materials across the network whilst "*providing a basis for action and assisting in individual and community goal attainment*" (Ritchie & Gill 2007:109). Social capital thus has an impact on network structures and can be viewed as a network characteristic itself. Linked to this, Adler and Kwon (2002) noted that, depending on network size, heterogeneity, and centrality, the effect of social capital can be either positive or negative.

Nahapiet and Ghoshal (1998) distinguished the following three types of social capital:

- (1) **Structural** – i.e., network configurations embodying mutually transformative **bonding**, **linking** and **bridging** ties that enable resource procurement/exchange. Consistent with Granovetter's (1973) concept of 'strong ties', **bonding social capital** concerns internal/strong kinship/community/acquaintance ties, which help to access tacit knowledge and relevant support to run a venture, especially in its early development stages and in multiply deprived areas (Lee et al., 2018; Lin, 2001). It is also related to Coleman's (1988) 'network closures' whereby social capital emerges out of a (dense) network of strongly interconnected elements and creates a more trustworthy environment (Burt, 2000). **Bridging social capital** is associated with weak ties (Granovetter, 1973) and diverse ties between private, public and support infrastructure organizations that may result in the creation of 'cross-sectoral social capital' (Moran, 2005:1129, Westlund & Gawell, 2012). It revolves around transactions between actors that would normally not be linked to one another (e.g., in case they come from different socio-economic backgrounds). This type of social capital may be also the value-adding outcome stemming from bridging Burt's (2001) 'structural holes' (cf. 3.9.2iv). **Linking social capital** often refers to voluntary organisations offering links to actors that are financially, socially and/or politically powerful (Sabatini, 2009). The more frequent interactions among such 'weak ties' are, the higher the chances of building trust-based ties become.
  
- (2) **Relational** – i.e., characteristics and qualities of relationships such as trust and reciprocity, which may reduce uncertainty and act as social lubricants. Murphy (2006:428) stated that trust is "*a fundamental characteristic of business networks, one which can significantly influence the transaction costs of exchange, the flexibility, innovativeness, or adaptability of firms, and the quality of the information or knowledge flows available to a businessperson*". Depending on the level of trust, networks can thus hinder and/or enable local economic development. On the other hand, weak ties have been associated with building legitimacy for new activities and enterprises (Aldrich, 1999).
  
- (3) **Cognitive** – i.e., common identity of the network comprising shared values, language, codes, narratives and perceived quality of social relations, all of which enable communicative actions and help to construct new ties through 'value interjection' (Lee et al., 2018). Associated customary obligations and expectations can help to promote

socially responsible codes of conduct and add a sense of 'stability' (Nahapiet & Ghoshal, 1998; Casson & Guista, 2007).

An organization's social capital may foster the development of dynamic capabilities (largely by facilitating sharing of resources, useful knowledge, goals and values among respective actors), which may in turn help to lead relational and cognitive social capital to a higher entrepreneurial orientation whilst enabling organizations to better confront changes in the environment (Rodrigo-Alarcón, et al. 2018).

The presence or absence of social capital in social/political domains has implications for the power relations inherent in network structures (Schuurman, 2003; Hansen, 2009). For example, certain network members may have unfulfilled expectations about other actors who may use social capital to pursue self-interested ends; consolidate power in the hands of a few; maintain the status quo; or exclude others from the network (Onyx et al., 2007; Bryson & Mowbray, 2005). All these aspects may affect the development of trust and legitimacy among the parties involved (Anderson & Jack, 2002). Linked to this, Bourdieu (1985) interpreted social capital as a disguised form of economic capital whereby human capital/labour power can be transformed into financial capital.

Such an approach reveals how social inequities and uneven power relations, which are destructive of working social capital, may be perpetuated at the local community level. This is consistent with Marxist view of power as 'power-over' rather than 'power-to', whereby the former conception of power signifies dominance of elite groups over low-status groups (cf. 2.5.3). Nonetheless, while Bourdieu (1985) noted that elite (often insulated) networks use such power to protect their interests and exclusively access valuable resources, networks can be also leveraged in such a fashion so that they can boost the capacities of the broader community (Beck, 1992). Stated differently, power may be utilized in such a manner that it goes beyond institutional imposition of force upon a particular actor ('power-over') in order enable other actors (e.g. SEs) to negotiate sustainability agenda and co-facilitate positive spillover effects ('power-with' and 'power within') (Allen, 2008). As Onyx et al. (2007:218) noted: *"social capital can be seen as both a private and a public good, depending on the context of its use"*.

Overall, while the relationship between social capital and networks is rather blurred, it is evident that social capital is a valuable outcome of social network engagement, which, in bonding similarly oriented entities and bridging dissimilar entities, may contribute to the local development of the CE (cf. Greve & Salaff, 2003; Neergaard et al., 2005; Hormiga et al., 2011; Westlund & Gawell, 2012; Abassi et al. 2014; Mair & Martí, 2006). Crucially, acknowledging

network aspects related to power and conflict in the (urban) politics of the local can help to better understand connections between different dimensions of social capital, the circulation of knowledge, material goods and resources, and hence local CE development trajectories. Such an approach can additionally help to challenge unjust institutional and social structures that are often embedded within networks of relationships in particular places (Hansen, 2009).

### 3.4 Conclusion

This chapter provided an overview of key concepts and theories that are employed in this research with a view to better examining the potential of respective SEs to scale their activities/social-circular innovations in such a fashion that they stimulate local and socially inclusive development of the CE. In doing so, it proposed an overarching theoretical approach - an integrated dynamic capabilities perspective - wherein dynamic capabilities perspective (understood as the ability of SEs to sense and seize opportunities, and to reconfigure their resource base so that CE development can be fostered) acts as an overarching structure for a number of subtheories (i.e., contingency theory; natural resource-based view theory; transaction-cost theory; theory of change; decision making theories; and the broader network theory). While dynamic capabilities play a mediating role in scaling, the subtheories fill specific gaps that dynamic capabilities cannot address alone, enabling a particular focus on the parts of the inquiry that are not captured by dynamic capabilities. Some sub-theories such as natural resource-based view theory are, in turn, complemented by the dynamic capabilities perspective.

Furthermore, this chapter has explored a range of contingency factors/conditions and both internal and external capabilities of SEs that impact, and are necessary, for creating, diffusing, dispersing and distributing social-circular practices/innovations in place and across geographical scales. When highlighting SEs' tendency to form multi-scalar networks of relations to ensure flows of necessary resources, this chapter also examined different network attributes, including connectivity, trust, reciprocity, economies of scale, power relations and embeddedness in broader contexts. It contends that it is vital to "*identify the threads that both bind and link together particular nodes of activity*" (Bunnell & Coe, 2001:578) when studying SE networks in order to explore the impacts of respective network characteristics and, more broadly, the influence of wider socio-spatial dynamics surrounding social-circular innovations, on SEs' performance outcomes and, ultimately, on the local development of a socially inclusive CE. Crucially, all the introduced concepts and theories are the building blocks of the Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) Framework (8.2) and ISIRVIS Toolkit (8.3) proposed in the concluding chapter.

## Chapter 4 – Methodology

### 4.1 Introduction

This chapter introduces the methodological approaches employed in the study, which investigates the capacity of SEs to adopt and/or upscale CE thinking and practice in specific urban localities, namely, Hull (UK), Santiago (Chile) and Graz (Austria). Doing so, it explicates how the inclusion of case studies from Santiago (Chile) and Graz (Austria) served to corroborate results from Hull (UK), hence making it possible to (1) identify contingent conditions specific to those contexts, and (2) cross-fertilize ideas across different spatialities. Overall, by triangulating data from different methods, this chapter explains how it was possible to test the quality and validity of the research findings whilst painting the broader CE landscape in particular locations.

The chapter is organised as follows. Firstly, it introduces key philosophical concepts that conjoin philosophy of knowledge with a philosophy of social science (4.2). It then introduces the adopted case studies and briefly explains the broader contextual terrain in which they are embedded, including their socio-economic and political characteristics (4.3). The subsequent section (4.4) describes and justifies the employment of the following research methods: semi-structured interviews, including sampling techniques for each locality (4.4.1); mapping sessions, some of which incorporated the Value Mapping Tool, which facilitated a better understanding of participants' perspectives (4.4.2); Social Network Analysis (4.4.3); Community Assets Mapping (4.4.4); secondary data sources (4.4.5); and participant observation and videomaking (4.4.6). It then presents virtual workshop activities, which were underpinned by the respective methods (4.4.7). This chapter ends with a discussion of ethical and practical considerations (4.5) and some challenges encountered during the research process, including those posed by conditions associated with COVID-19 (4.6).

### 4.2 Ontological and Epistemological foundations

Ontological<sup>5</sup> and epistemological<sup>6</sup> approaches to research direct the research process, including data analysis and interpretation (Plowright, 2011). This research is primarily positioned within the interpretivist framework according to which there is no one correct, universal and objective path to knowledge and rules of the scientific method (Smith, 1993). Such an approach is antifoundationalist and largely subjective as the knowledge it produces is

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<sup>5</sup> Ontology explains 'what exists/what things are' (Goertz & Mahoney, 2012).

<sup>6</sup> Epistemology concerns our knowledge of reality: 'how do we know things?' (Goertz & Mahoney, 2012).

contingent upon people's subjective perceptions and understandings. Interpretivist data collection methods in this research include semi-structured interviews (4.4.1), community assets mapping (4.4.4), as well as participant observation and video making (4.4.6), all of which help to ensure that there is richness in the insights gathered.

Quantitative data derived from the Social Network Analysis (e.g., centrality betweenness, see 4.4.3) is somewhat compatible with the assumptions of positivism, an approach describing social phenomena by attribution of numbers (Clark & Creswell, 2008). This research, however, rejects the positivist assumption that there is one single truth, and that the researcher should hold an objective and value-free stance towards research data. Instead, this research is value-laden and emphasizes, through the use of mixed social research methods, the lives of marginalized social groups, which should be considered especially when investigating a socially inclusive CE.

The value-laden approach adopted in the research is further compatible with a pragmatic and transformative research paradigm. A pragmatic philosophical orientation focuses on a mix of ideas, methods and approaches to explain a solution to a research problem ("what works") instead of pursuing an objective "truth" (Morgan, 2007). The transformative paradigm links research findings to actions intended to mitigate challenges facing marginalized communities and may be supported with a community needs assessment (Jackson et al., 2018; cf. 4.4.4i). A transformative approach is especially relevant in the context of this research as it highlights ways in which CE could alleviate poverty in impoverished communities in Hull. The thesis assumes that this involves SEs capitalizing on, and/or procuring, relevant dynamic capabilities (cf. 3.3).

This research also draws upon some of the premises of critical realism, which constitutes an alternative to exclusively interpretivist and/or positivist paradigms. Similarly to interpretivism, critical realism contends that social phenomena require interpretive understanding and are concept-dependent (Flick, 2014). In contrast to interpretivism, however, critical realism does investigate (through investigation of phenomena at the empirical level where they exist) causal relationships underpinning social problems, knowledge of which can result in more informed policymaking (Sayer, 2000; Fletcher, 2017). It also combines interpretivism with a structural awareness that interpretivism does not have. Consistent with realist ontology (i.e., an approach assuming that "entities exist independently of being perceived, or independently of our theories about them" (Phillips, 1987:205)), which does not exclude epistemological interpretivism that focuses on human perceptions, this research adopts a mixture of extensive and intensive methods (Sayer, 1992). Extensive research attempted to map the general



characteristics of the CE operating across the specific case studies, highlighting the need to acknowledge challenges associated with complex phenomena of non-local origin (e.g., globalisation) (Gomm, 2004), as well as the social networks and ever-evolving socio-political, economic and cultural contexts in which SEs and other actors evolved in the local development of the CE operate (Q1.1). Whereas extensive research aims to identify general patterns and characteristics of the CE across different contexts, intensive research is designed to identify causal relationships behind particular attributes of SEs as well as the contingent conditions that prompt SEs to undertake different activities, including those that might contribute to the local development of the CE. Here the emphasis is on revealing the power structures underlying the social networks in which CE activities are embedded. In this manner, intensive qualitative research can complement the extensive methods used to map the general characteristics of the CE, including social network analysis (4.4.3) and community assets mapping (4.4.4).

In order to examine the social conditions and causes, such as (food) poverty and social inequality, underlying the adoption of CE practices, a realist approach provides policy insights for how to develop a more socially inclusive CE. Crucially, the realist approach adopted here helped to bring into light some of the alternative enterprises involved in building the local CE, and which broadly fall under the category of 'diverse economies', yet often remain hidden from the mainstream view (Gibson-Graham, 2006). The diverse economies concept has been referred to as a "*performative ontological project that builds upon and draws forth a different kind of academic practice and subjectivity*" (Gibson-Graham, 2008:613). Since the concept of diverse economies has been criticized for being 'overdetermined' and falling into an incoherent 'everythingism' (Glassman, 2003), it is crucial to draw a distinction between 'necessary' and 'contingent' conditions, as well as between 'internal' and 'external' relations in order to comprehend how certain phenomena are 'overdetermined', and ultimately construct new performativities (cf. Sayer, 1984; Rogers et al., 2013:423). The mixed methods adopted in this research provide considerable scope not only to investigate the underlying social structures shaping the local development of the CE, but also to rethink opportunities to rethink the circular economy performatively.

### 4.3 Case Study Localities

This research employed detailed case studies of a broad range of SEs operating across quite diverse sectors in different spatial contexts, namely Hull (UK) (31 SEs), Santiago (Chile) (18 SEs<sup>7</sup>) and Graz (Austria) (1 SE). It also employed interviews with eight support infrastructure organizations (SIOs) (six based in Hull and one based in London, UK) and with three local authorities in Hull. The researcher initially focused on three sectors (wood, food and textiles) but realised quite early on that SEs often represent multiple sectors. The aim of this research was thus not to make a direct comparison between sectors but rather to generate knowledge of the variegated circumstances under which SEs representing diverse sectors may or may not employ CE thinking and practice (see Table 4.1 and 4.2 in 4.4.4 for a more detailed overview of SEs and SIOs with regards to sectors they represent).

One of the rationales behind the adoption of sector- and locality-based case study research (Yin, 2003) is to evidence variegated capacities of different types of SEs to implement and/or upscale CE thinking and practice in different geographical settings, which are characterized by place-specific dynamics and historical specificity. Crucially, studying various SEs in three different geographic contexts not only enables research to compare and contrast a range of contextual circumstances (such as different conceptions/understandings of SEs and the CE; size of organisations; organizational profiles; antecedents; goals; objectives and business models, including resources being procured/exchanged), but also to investigate the interplay of causal structures and contingent conditions. Stated differently, acknowledging different organizational attributes and spatial contexts can help to better examine cause and effect relationships between respective ‘variables’ for the local development of the CE.

Locality case studies also facilitate the corroboration of findings across ostensibly different spatial settings (see Duncan & Savage, 1989; Jonas, 2006). For example, SEs in Hull, Santiago and Graz, respectively, are operating in broadly similar structural contexts (i.e., are subject to larger-scale processes such as neoliberal globalisation) but their powers and capacities may be activated in different ways, depending on contingent conditions such as variations in state support for CE activities, regional development policy, and so forth. Cross-locality comparison also facilitates the cross-fertilizations of novel applications of the CE (e.g., regarding particular goods and services) and enables policy makers to understand the contingent conditions for

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<sup>7</sup> One of these 18 SEs is based in Viña del Mar (see 4.3.2).

replicability of CE activities and practices in other geographic contexts so that respective *social circular innovations* could benefit those in most need.

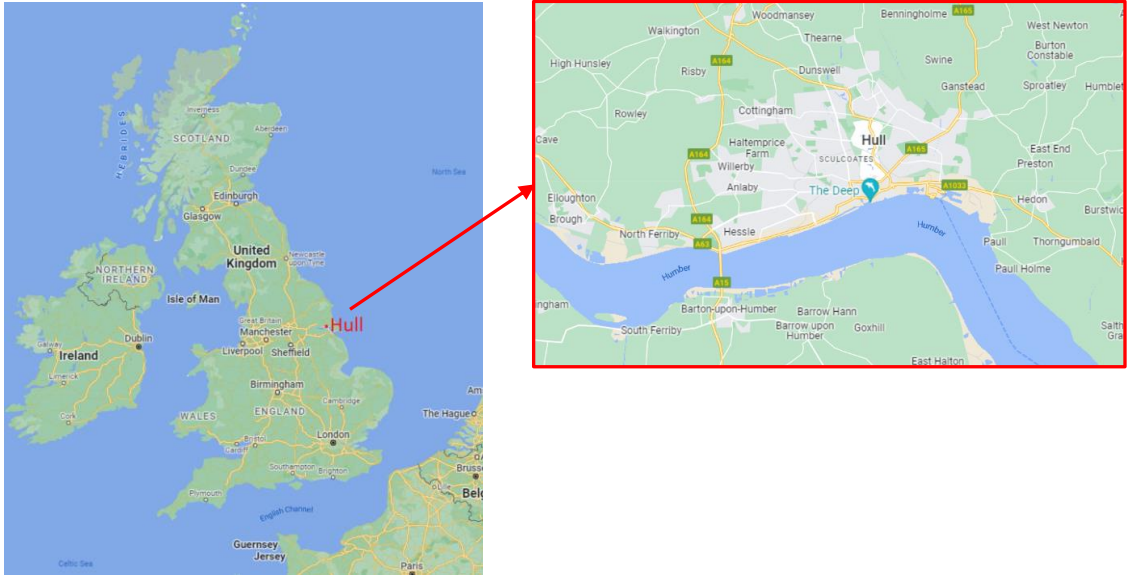
This research further explores how CE practices can be promulgated within contexts that cannot necessarily produce them alone, but which could be beneficial to the spread of relevant practices (Spinosa et al., 1997). In doing so, it identifies examples of good practice CE activities in particular socio-spatial and temporal contexts. Given that different spatial contexts often have divergent implications for the emergence of different types of SEs (Trettin & Welter, 2011), the analysis is used to inform the development of a more robust typology of SEs involved in the local development of the CE (see 5.5). The three urban localities examined in this research are briefly discussed here.

#### 4.3.1 Hull, UK

This research investigates the broader SE ecosystem in Kingston upon Hull – a port city in the Humber region, the East Riding of Yorkshire, England, with a 2019 population of 259,126 (Kingston Upon Hull Data Observatory, 2020). After suffering heavy damage in the Second World War and going through a period of post-industrial decline that involved collapse of fishing and shipping industries (Bettney, 2017), the city is presently defined as a ‘structurally disadvantaged’ (Jonas et al., 2017) in that it has been ranked as the 4<sup>th</sup> most deprived (based on score) local authority (out of 326) in England (UK Ministry of Housing, Communities & Local Government, 2019). It is also ranked as the 5<sup>th</sup> local authority in the UK with the highest proportions of children and older people in income deprivation (UK Ministry of Housing, Communities & Local Government, 2019). According to the Index of Multiple Deprivation the city has been also nationally ranked as the 4<sup>th</sup> most deprived city under the ‘Education, Skills & Training’ domain; 6<sup>th</sup> under the ‘Income’ domain; 6<sup>th</sup> under the ‘Crime’ domain; and 7<sup>th</sup> under the ‘Employment’ domain (HCC, 2019). The city’s low rates of employment are unparalleled in comparison to its neighbouring local authorities. Map 4.1 below reveals large concentration of Lower Layer Super Output Areas (LSOAs<sup>8</sup>) with high levels of deprivation across 21 wards in the City of Hull.

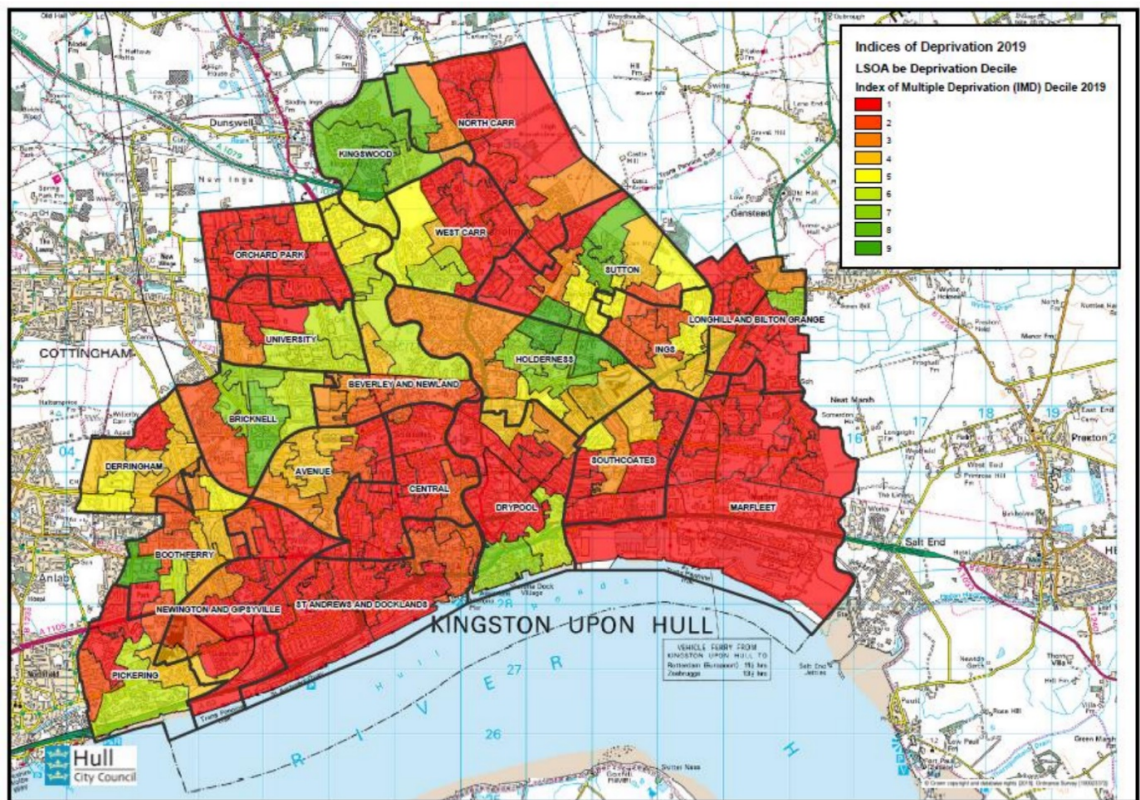
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<sup>8</sup> LSOAs have an average population of 1500 people or 650 households.



**Map 4.1 - Map of UK**

Source: Google Maps



**Map 4.2 - Lower Layer Super Output Areas (LSOA) deprivation in Hull by national decile and according to The Index of Multiple Deprivation (2019)**

Source: Hull City Council (2019)

High social deprivation is also reflected in that the Eastern part of the city (see Marfleet ward) hosts the UK's worst 'food desert', i.e. an area that lacks access to fresh and healthy food products (Corfe, 2018). Various studies reveal that highly deprived areas are often characterized by poor environmental quality (Fairburn *et al.*, 2009). In addition, 9.4% of the population receives Employment and Support Allowance/Incapacity Benefits, the latter being for mental and behavioural disorders (HCC, 2016). In the light of the above data, the city has a reputation for its home-grown voluntary and social enterprise sector (VCSE) that strives to improve the quality of life of its most deprived inhabitants (HCC, 2016). Just as structurally disadvantaged cities might seek to run innovative carbon offset projects in order to attract more investment to the city (Wurzel *et al.*, 2019), Hull City Council is in the process of formulating a strategy for the CE in the city. Interestingly, in 2017 Hull became the UK City of Culture – a programme full of art and cultural activities that was responsible for approximately £89.3m of investment in the city and contributed to a 9.7% increase in tourism that year (Redmond, 2019). As the city attempts to secure its City of Culture legacy (Bakare, 2019), it is worth considering the potential role of art organizations in promoting *creative* CE in the city. In any case, Hull is an ideal place to explore the local development of the *social enterprise ecosystem* in the city through the lens of the CE.

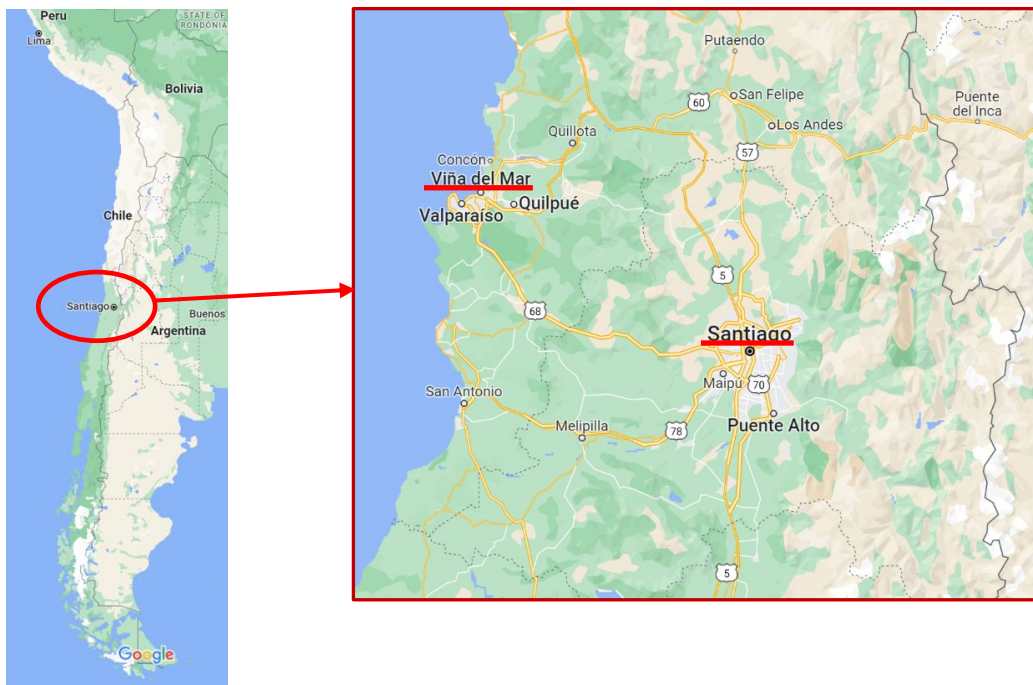
According to UK taxonomy, the umbrella concept of a SE emerged to enable diverse charities and enterprises to formalize their socially and environmentally driven activities through the following legal forms: Community Interest Companies (CIC) - this legal form emerged in 2005 and rose up to 39% of all SEs in 2021 (Social Enterprise UK, 2021); charity or a charitable incorporated organisation (CIO), co-operative, limited company or sole trader/business partnership. Small organizations such as youth clubs may be registered as an 'unincorporated association' (GOV.UK, n.d.). In the UK, SEs also fall under the broad term of 'Voluntary Community and Social Enterprise' sector organizations (VCSEs). Overall, the SE sector in the UK is expanding its market share and there are over 100,000 SEs in the UK, worth a combined £60 billion to the UK economy and employing approximately 2 million people (Social Enterprise UK, 2018). This is also linked to the fact that, in contrast to Chile, private companies may be eligible for 30% reduction in tax for investments in social business – a scheme that has been extended until April 2023 as part of the 'levelling up' agenda (Big Society Capital, 2022). The national government also supports the development of sustainable ventures at the community level through the state-franchised lottery (The National Lottery, 2022).

This research incorporates 31 case study SEs from Hull (see Table 4.1), as well as six support infrastructure organizations (SIOs) (see Table 4.2), which were selected out of approximately 74 initially contacted SEs and SIOs in Hull. SIOs can be viewed as incubators and accelerators of

social/environmental enterprise ventures. They generally emerge to offer legal advice, assessments or financial aid, thus helping SEs to leverage necessary assets and teach them on how to become more sustainable. Crucially, some SEs can be regarded as SIOs in case they provide help to other entrepreneurs. Overall, the lack of a clear-cut characterization of SEs enabled to uncover the diversity of social-circular enterprise forms and SIOs in the city and associated variegated capacities to stimulate the development of a socially inclusive CE at the urban scale. See subsection 4.4.1 (i) to view the sampling techniques, including selection criteria, used in this research. See Table 4.3 to view three representatives from the Hull City Council who likewise contributed to the research.

#### 4.3.2 Santiago, Chile

Chile is a South American country with a total population of nearly 18 million inhabitants. Approximately 90% of its population lives in urban areas, mainly in the metropolitan area of Greater Santiago (El Instituto Nacional de Estadísticas (INE), 2018). The second largest metropolitan area in the country is 'Greater Valparaíso' with the City of Valparaíso that has 800,295 residents (OECD, 2019). The country has a long, over 6,000 km-long coastline and covers a total area of approximately 756,000 km<sup>2</sup> (INE, 2006; see Map 4.4).



**Map 4.3 – Map of Chile**

Source: Google Maps



Although Chile is one of the most developed countries in Latin America, it has the second worst distribution of wealth/income inequality in the entire region; it is estimated that the richest 10% of the population obtain almost 50% of the national income (Orejas & Buckland, 2016). The violent social unrest ('Estallido Social') that began in October 2019, was the outcome of such high levels of inequality in addition to high living costs and privatisation (Laing et al., 2019). Chilean protests thus only highlighted that CE initiatives should be aligned with goals to reduce inequality and poverty. Therefore, studying mission-driven SEs in the context of the CE is highly relevant.

SEs in Chile often concern non-profit organizations that intend to introduce for-profit trading activities that have a social impact; start-ups that have a social and/or environmental objectives from their inception; and businesses with a social mission that resemble more a private enterprise as they do not necessarily prioritize social/environmental mission over profit maximization, an example being LATE – the first named SE founded in 2003 (Orejas & Buckland, 2016). In 2007 a new legal structure, which broadly denotes social entrepreneurial ventures in Chile, was introduced, namely Stock Company (in Spanish *Sociedad por Acciones* – SpA). In this research, Stock Companies constitute the majority of the interviewed SEs in Chile. They are generally characterized by a relatively low administrative burden as it is in the case of a limited company (i.e., requiring at least US\$1 of share capital, 1 shareholder and 3 directors), as well as free flows of capital whereby it is divided into shares (as it is in case of corporations). Such enterprises may be also labelled as B Corps through *Sistema B* global network of entrepreneurs, which entered Chile in 2012. Other legal structures for SEs in Chile concern foundations and hybrids of foundations and stock companies whereby a percentage of the company's profit can be donated to the foundation (Orejas & Buckland, 2016). Overall, the SE/social innovation sector in Chile has received a lot of support from the government in Chile via intermediaries (e.g., Socialab) working with funding agencies such as Corporación de Fomento de la Producción (CORFO) (The Production Development Corporation), SERCOTEC (El Servicio de Cooperación Técnica), or Social Innovation Prototypes Fund. There is, however, no official legal structure for SEs despite efforts of SIOs such as *Sistema B* to propose a new, a more standardized conception of, and legal frameworks representing, a diversity of SEs in Chile to attract more private investment.

This research incorporates 17 case study SEs from Santiago and 1 based in Viña del Mar located ca. 78 miles away from Santiago – see Map 4.4<sup>9</sup>; Table 4.1; and subsection 4.4.1 (ii) to

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<sup>9</sup> That SE has a chain of zero-waste shops across Chile.

find out more about the sampling techniques employed in this research. SEs in Chile were selected because of the country's leading role in promoting the CE in Latin America (cf. 2.4.3), interesting political situation associated with 'Estallido Social' that has played a role in prompting many companies to rethink their business models; innovativeness; and high response rates from entrepreneurs when compared to those from other countries that were initially contacted (e.g., Argentina, Colombia, Mexico, Philippines). Given that the researcher speaks Spanish, choosing Chilean SEs as case studies was further encouraged. See 4.4.1ii to find out what types of Chilean SEs were sampled for the purpose of this research.

#### 4.3.3 Graz, Austria

The official Austrian enterprise taxonomy does not specifically distinguish the concept of a SE and instead refers to *Socialwirtschaft* (social economy) or *Socialintegrationsunternehmen* (social integration enterprises, which include legal forms such as associations, public benefit limited liability companies, and cooperatives) (Anastasiadis et al., 2018). Following the development of EU policies aimed at the creation of new employment opportunities that address environmental issues through social economy organizations, one of the policy objectives in Austria was to promote the so-called ECO-WISEs or ecological-work integration social enterprises (Anastasias & Mayr, 2009). ECO-WISEs have in fact been evolving in Austria since 1980s and have received significant financial support from the national authorities (Anastasias & Mayr, 2009). In general, SEs are becoming increasingly important players in the Austrian social economy due to growing demographic changes, complex welfare-state reforms, and relatively high rates of municipal waste generation per capita at the EU level (Anastasiadis et al., 2018; Eurostat, 2018). These challenges, coupled with state (national, regional, and local) support for SEs, open a window of opportunity for locally embedded SE initiatives to offer not only social work activities and work integration schemes, but also actively and creatively circulate CE practices, ideas, and values.

This research adopts an intensive case study of one ecological-work integration SE project in the City of Graz in the region of Styria, Austria (see Map 4.5 below), known as *heidenspass*<sup>10</sup>. The broad spectrum of *heidenspass*' economic spaces and associated circular economy-related work activities, materials, and alliances, provided an opportunity to develop and apply a set of methods for investigating the diverse circuits of value underpinning the local development of the CE in a particular urban setting (see 4.4.1 iii).

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<sup>10</sup> *heidenspass* is italicised because it is the name of the project that runs as part of an association - Verein Fensterplatz. Alternatively, *heidenspass* can be referred to as 'Verein Fensterplatz-Projekt heidenspass'.





**Map 4.4 – Location of Graz in Austria**

Source: Google Maps

#### 4.3.4 Summary of Case Studies

The Table 4.1 below represents an overview of all the 50 SEs examined in this research. It includes specification of a type of organisation the SE is in a respective country (these range from charity, CIC, B-corp); sectors that they represent; terms of employment through which service and/or product delivery is achieved (voluntary, mixed implying voluntary and paid, paid); and which research methods were employed with each organisations, i.e., online/offline interview(s) (4.4); mapping session incorporating mapping resource flows between respective actors (4.5) and/or value mapping using Value Mapping Tool (4.5.1); social network analysis (4.6) secondary data sources (4.8); participant observation (4.9); and/or videomaking (4.9).

These are further summarised in Appendix 3, which highlights each SEs' key CE activities, their retained/generated social/environmental/economic values; year of establishment; number of employees; forms of income; as well as some of the key strengths and needs (often implicating weaknesses) associated with each enterprise. Table 4.2 and Table 4.3 below additionally showcase eight SIOs whose representatives participated in the interviews, as well as three representatives from the Hull City Council (HCC) who likewise contributed to the project. Figure 4.2 presents a typology of SE forms in the UK, Chile, and Austria that were showcased in this research.

**Table 4.1 – An Overview of case study social enterprises**

Note: Names of a given SE (column 2) in black font indicate SEs from Hull, names in red font indicate SEs from Chile and names in blue font indicates a SE from Graz, Austria. Further explanation of shortcuts of a registered type of organisation (column 3) can be found in Figure 4.2.

Name of a SE	Registered type of organization	Sector (predominant)	Other sectors represented by a given SE	Terms of employment	Research methods used
1 EMS, Ltd.	incorporated charity & ltd	Food (food surplus & growing)	Mentally struggling, prisoners	mixed	<i>in-person interviews</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i> ; videomaking; community assets mapping
2 FareShare Hull & Humber	charity	Food (food surplus)		mixed	virtual interview; SNA; secondary data sources
3 Hull Foodbank	charity	Food (food surplus)	Clothing & other textiles	mixed	virtual interview; SNA; secondary data sources
4 Rooted in Hull	private company limited by guarantee	Food (food growing & composting)	Furniture (reclaimed wood for planters)	mixed	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i> ; videography; virtual workshop (mapping stakeholders and flows of resources and values, see more in 4.10)
5 Bameen CIC	CIC	Food (food growing & food surplus)	Furniture (reclaimed wood for planters)	mixed	virtual interview; SNA; secondary data sources
6 Down to Earth	CIC	Food (food growing & composting)	Furniture (reclaimed wood for planters)	voluntary	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i>
7 Prana Sopas	S.P.a.	Food		paid	virtual interview complemented with mapping resource flows between respective actors; secondary data sources
8 Ecología en tu Barrio	S.P.a.	Food (composting)		mixed	<i>in-person interview</i> complemented with mapping resource flows between respective actors; secondary data sources
9 Súper Justo	S.P.a.	Food (zero-waste, composting)		paid	virtual interview; secondary data sources
10 Recycling Unlimited	charity		Arts & Crafts (wooden)	mixed	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i>
11 Humber Wood Recycling (HWR)	charity		Food (food growing & composting)	mixed	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i>
12 Cat in the Sack	self-employed, sole-trader	Furniture	Arts & Crafts (wooden, textile & other)	mixed	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i>
13 Emmaus Hull & East Riding	charity		Clothing & other textiles	mixed	virtual interview; SNA; secondary data sources
14 Eternal Benefits	charity & plc		Food (food surplus)	voluntary	<i>in-person interview</i> complemented with mapping resource flows between respective actors; SNA; secondary data sources; <i>participant observation</i>
15 Treecycle	sole-trader	Arts & Crafts (wooden)	Food (food surplus)	NA	virtual interview; SNA; secondary data sources
16 Rincón del Pallet	S.P.a.		Arts & Crafts (wooden)	paid	virtual interview; secondary data sources

17	<b>Don Pallets</b>	private company	Furniture	Arts & Crafts (wooden)	Disabled children	paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation; videography	
18	<b>Life and Loom</b>	private company	Furniture Clothing & other textiles	Mentally struggling		mixed	virtual interview; SNA; secondary data sources	
19	<b>ROPO design</b>	solo trader				NA	in-person interview complemented with mapping resource flows between respective actors; SNA; secondary data sources; participant observation	
20	<b>Dove House Hospice / Dove House Trading Limited</b> (owns HWR)	charity / Ltd		Furniture & Wooden crafts	Electronics	Prisoners	mixed	in-person interview complemented with mapping resource flows between respective actors; SNA; secondary data sources; participant observation
21	<b>Sue Ryder</b>	charity		Furniture & Wooden crafts			mixed	in-person interview; SNA; secondary data sources; participant observation
22	<b>ScrapStore Hull</b>	charity		Arts & Crafts (textile, cardboard & other)	Mixed/Other (paint)	Vulnerable youth; Children	paid	in-person interview; SNA; secondary data sources; participant observation
23	<b>Ecocitex</b>	S.P.a.			Ex-offenders; Women		mixed	virtual interview; secondary data sources
24	<b>Travieso</b>	S.P.a.			Children		paid	virtual interview; secondary data sources
25	<b>Uniformes Recicladados</b>	private company					paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation; videography
26	<b>Teddy</b>	foundation			Mixed/ Other (teddy grupos)		voluntary	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation; videography
27	<b>Traenerhus</b>	private company		Arts & Crafts (textile, cardboard & other)	Hygiene	Women	paid	virtual interview; SNA; secondary data sources
28	<b>Happy Bird</b>	S.P.a.	Arts & Crafts (plastic)		Prisoners	paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation; videography	
29	<b>Plastic LUP</b>	company & certified B corporation	Arts & Crafts (plastic & other)		Artisans, Prisoners	paid	virtual interview; secondary data sources	
30	<b>heldenspass</b>	association	Arts & Crafts (textile, cardboard & other)	Furniture	Food	paid	in-person interview complemented with mapping resource flows between respective actors & values; secondary data sources; participant observation; videography	
31	<b>Soap from the Heart</b>	family business		Children		NA	in-person interview; SNA; secondary data sources; participant observation	
32	<b>Miss Moon Reutilizables</b>	S.P.a.		Other textiles		paid	virtual interview; secondary data sources	
33	<b>Biorigen</b>	S.P.a.	Hygiene			NA	in-person interview complemented with mapping resource flows between respective actors; secondary data sources	

34	<b>Emporio Natural</b>	private company			<b>Disabled children</b>	paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation; videography
35	<b>Freemet</b>	S.P.a. & certified B corporation			<b>Vulnerable people</b>	paid	virtual interview; secondary data sources
36	<b>Library of Stuff CIC</b>	CIC			Mixed/ Other	voluntary	virtual interview; SNA; secondary data sources
37	<b>MakerspaceHull</b>	library service	Electronics		<b>Vulnerable youth; Refugees; Elderly; Ex-offenders</b>	voluntary	in-person interview complemented with mapping resource flows between respective actors; SNA; secondary data sources; participant observation; videography
38	<b>Community Re-paint Hull &amp; Humber</b>	charity			Construction/ Housing	voluntary	virtual interview; SNA; secondary data sources
39	<b>Droppoint CIC</b>	CIC				paid	virtual interview; SNA; secondary data sources
40	<b>Enviromail</b>	non profit company limited by guarantee (cig)	Mixed/ Other		<b>Disabled</b>	paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; participant observation
41	<b>Triciclos</b>	company & certified B corporation				paid	in-person interview complemented with mapping resource flows between respective actors; secondary data sources; videography
42	<b>Unity in Community</b>	charity			<b>(Vulnerable) youth; Refugees and asylum seekers; Unemployed</b>	paid	in-person interview; SNA; secondary data sources; participant observation
43	<b>Goodwin Trust</b>	charity			<b>Vulnerable people</b>	mixed	in-person & virtual interviews; SNA; secondary data sources
44	<b>Giroscope</b>	charity & limited by guarantee	Construction/ Housing		<b>(Vulnerable) youth; Refugees and asylum seekers; Alcohol addicts; Homeless</b>	mixed	in-person & virtual interviews; SNA; secondary data sources; participant observation
45	<b>Probe, Ltd.</b>	ltd			<b>Vulnerable youth; Women</b>	mixed	virtual interview; SNA; secondary data sources
46	<b>Winner, Ltd. (Purple House)</b>	ltd	Construction/ Housing (for women)		<b>Women; Prisoners and ex-offenders; Refugees and asylum seekers</b>	mixed	virtual interview; SNA; secondary data sources
47	<b>TECHO Chile</b>	foundation	Construction/ Housing		<b>Hygiene</b>	mixed	virtual interview; SNA; secondary data sources
48	<b>Recylink</b>	(software) company	Construction/ Housing		<b>Homeless</b>	mixed	virtual interview; SNA; secondary data sources
49	<b>Matthew's Hub</b>	charity			<b>Arts &amp; Crafts (mixed)</b>	mixed	in-person interview complemented with mapping resource flows between respective actors; secondary data sources
50	<b>Age Hull UK</b>	charity	<b>Disabled (autism)</b>		<b>Prisoners</b>	mixed	virtual interview; SNA; secondary data sources
			<b>Elderly</b>		<b>Arts &amp; Crafts (mixed)</b>	mixed	virtual interview; SNA; secondary data sources

Table 4.2 – An overview of support infrastructure organizations (SIOs) participating in the study

Name of a SIO	
1	<b>The Smile Foundation</b> (Hull, UK)
2	<b>TimeBank Hull &amp; East Riding</b> (Hull, UK)
3	<b>North Bank Forum</b> (Hull, UK)
4	<b>Hull Food Partnership (HFP)</b> (Hull, UK)
5	<b>Humber Learning Consortium</b> (Hull, UK)
6	<b>Friends of the Earth Hull</b> (Hull, UK)
7	<b>Charity Retail Association</b> (London, UK)

Table 4.3 – An overview of representatives from Hull City Council (HCC) participating in the research

Representatives from the Hull City Council		Role
1	<b>Martin Budd</b>	Climate Change Manager
2	<b>Doug Sharp</b>	Head of Waste Management
3	<b>Iain Atkinson</b>	Strategic Delivery Manager

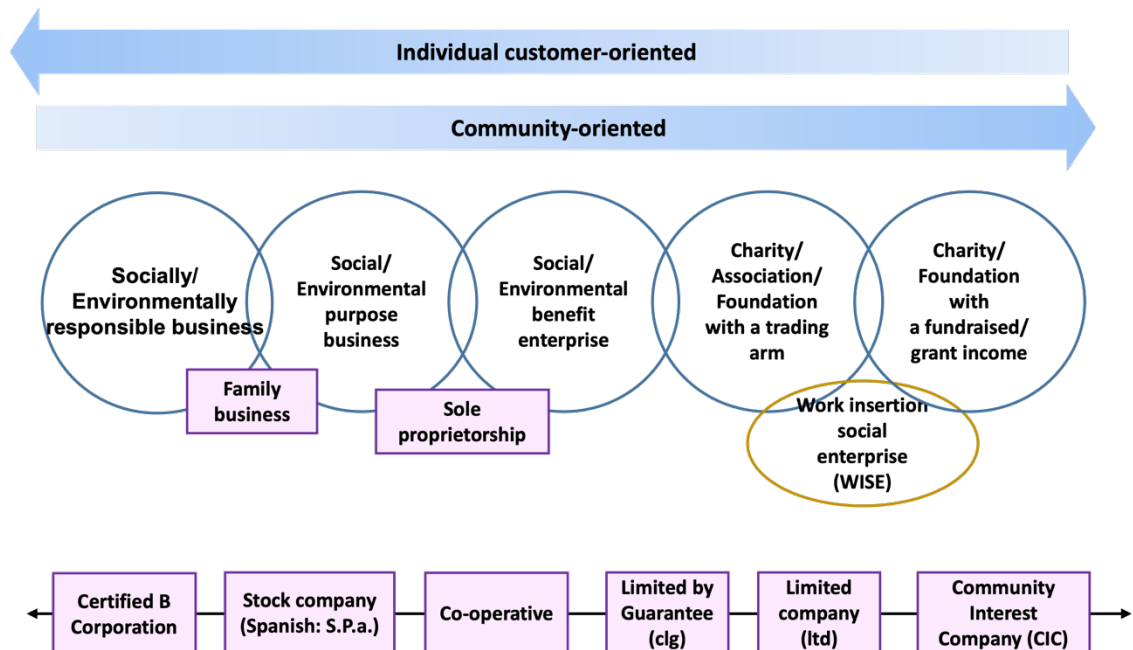


Figure 4.1 – Typology of social enterprises in the UK, Chile and Austria that participated in the study

Author's design after Bolton et al. (2007)

## 4.4 Sampling and Data Collection: A multi-method approach

This research project employed a combination of the following social research methods to collect data: semi-structured interviews, some of which were supported with a visual methodology that involved mapping resource flows, actors and values associated with respective SEs; social network analysis; community assets mapping; analysis of secondary data sources; participant observation and videomaking, as well as virtual workshop, which in addition to collecting data, enabled to test the Integrated Social-Circular Value-Impact framework presented in the Conclusions (see 8.2 and 8.3). Given that semi-structured interviews with SEs underpinned the remaining research methods, the sampling techniques employed for the purposes of interviewing (and explained in 4.4.1) generally match those used for other methods, although some exceptions apply and are explained in the context of respective research methods. Challenges associated with respective research methods are discussed in 4.6.

### 4.4.1 Semi-structured Interviews

The main method of intensive research used in this study involved semi-structured interviews, which were conducted with representatives from the above SEs, SIOs and local authorities in Hull, Graz, and Santiago. Semi-structured interviewing is a qualitative social research method, which helps to uncover and understand what lies behind any phenomenon about which there is not much knowledge (Strauss & Corbin, 1990). This is because it enables the researcher to obtain in-depth qualitative data, which have high explanatory potential and help to promote reflexivity and rigour (Rubin & Rubin, 2011). Semi-structured interviewing adopted in this research enabled the researcher to obtain subjective and in-depth data (e.g., underlying beliefs and subjective perceptions of respective ties – see 4.7), and to uncover and examine a wide range of causal relationships between respective organizations under scrutiny (Graebner et al., 2012). Guided by methodological realist principles, semi-structured interviewing additionally enabled the construction of informative narratives.

The following sub-sections discuss the sampling techniques in each locality (i.e., justify the sample size that was collected), rationale for the interviews, interviewing process and the range of topics and themes explored.

#### *i. Sampling in Hull (UK)*

This research incorporates interviews with representatives of 31 case study SEs from Hull (see Table 4.1), as well as representatives of six support infrastructure organizations (SIOs) in Hull and one in London (UK) (see Table 4.2), all of which were selected out of the 74 initially

contacted SEs and SIOs. The sample is thus broadly representative of SE organisations in the city. The research additionally involved three interviews with three representatives from the Hull City Council (Climate Change Manager, Head of Waste Management and Strategic Delivery Manager). The lack of a clear-cut characterization of SEs enabled to uncover the diversity of social circular enterprise forms and SIOs in the city and associated variegated capacities to stimulate the development of a socially inclusive CE at the urban scale.

Interviewees were recruited through snowball sampling where existing study subjects recruit future subjects from among their acquaintances. EMS, an official Cresting project partner, provided an initial point of contact for recommendations and referrals to other enterprises in the city. The researcher also attended a Social Enterprise Fair in 2019, which hosted over 30 diverse social economy organizations active in Hull and enabled her to establish valuable connections for the research. Participants were also identified through personal connections, as well as from websites and other public online data bases. These approaches enabled to create a roster of SEs in the city, which aided identification of SE ego-networks in the city during interviews (see 4.4.3 on SNA).

SEs in Hull were selected based on the following criteria: (1) sectoral characteristics (including environmental/-CE and social-orientation); (2) size in terms of a number of employees; (3) variegated stages of organizational development; and (4) market (e.g. community-based vs. individualist/commercial). Only a small number of SEs sampled in Hull explicitly reported an environmental mission or benefits associated with their activities. Such a finding is consistent with other studies revealing that approximately a quarter of SEs in the UK identify themselves as environmentally driven, not to mention the small number of SEs that are primarily focused on pursuing environmental activities (Vickers, 2010). Consequently, the majority of the SEs examined in Hull are socially oriented.

#### *ii. Sampling in Santiago (Chile)*

SEs in Chile were primarily identified from SIOs, which were found via online search engines, as well as online search engines and referrals by SEs and SIOs initially contacted. Regarding SIOs, the sample included member SEs of the Fundación Basura Zero (Zero-Waste Foundation) and SEs participating in contests run by Desafío Levantemos Chile – two SIOs operating in Santiago. Similarly to sampling of SEs in Hull (UK), SEs in Chile were selected based on the following criteria: (1) sectoral characteristics (including environmental/-CE and social-orientation); (2) size in terms of a number of employees; (3) variegated stages of organizational development; (4) market (e.g. community-based vs. individualist/commercial); and legal status (mainly Stock

Companies and non-profit organizations/foundations). 17 SEs selected in Santiago (and 1 based in Viña del Mar located ca. 78 miles away from Santiago – see Map 4.4<sup>11</sup>) broadly capture similar sectoral characteristics as those in Hull (e.g. wood recycling), thus enabling the researcher to corroborate, compare and contrast research findings, in addition to cross-fertilizing ideas/knowledges across different spatial contexts (especially between Chile and Hull, UK). Given significant differences in institutional and urban contexts, comparisons between the UK and Chile enabled the identification of structures, mechanisms and conditions that shape local CE development trajectories in respective spatial contexts. Notably, the SEs sampled in Chile exhibited attributes, such as innovative diversification (by product and sector), which were often lacking in Hull. The research conducted in Chile was not designed to map and conceptualize the broader social circular ecosystem, but instead focused on investigating the powers, liabilities, and capacities of individual circular SEs.

iii. *Sampling in Graz (Austria)*

This research adopts an intensive case study of one SE project in the City of Graz in the region of Styria, Austria (see Map 4.5 below), namely, *heidenspass*. *Heidenspass* is formally delivered by *Verein Fensterplatz* – an association founded in 2006 in Graz to offer employment opportunities to unemployed youth. The case study was identified during the researcher’s mobility visit to the University of Graz in May 2019 (University of Graz was one of Cresting project’s partners). During this visit, an initial interview was conducted with the manager of *heidenspass*. The subsequent, one-week visit took place in November 2019 and included interviews and mapping sessions (see 4.6) with thirteen members of *heidenspass* staff. *Heidenspass* was adopted in this study due to its broad spectrum of economic spaces and associated circular economy-related work activities, materials, and alliances (see *heidenspass* in Appendix 3).

iv. *Practice and Analysis*

The purpose of the interviews was established in the invitation email. Interviews were organized around the following key themes: (1) SEs’ historic background, motivations, mission, experiences and activities; (2) their embeddedness within the city and local community; (3) organizational/legal forms; (4) their knowledge of CE practices and policies; (5) opportunities and challenges associated with existing activities, networks and alliances (e.g. with mainstream organizations); (6) SE mission and vision of the future, including potential scaling strategies; and (7) the broader regulatory, socio-economic, environmental and financial contexts in which

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<sup>11</sup> That SE has a chain of zero-waste shops across Chile.



SEs are embedded (see Interview questions in Appendix 2). The interviews provided a detailed understanding of the functioning of selected SEs in terms of mobilization of human and financial capital as well as material resources.

Depending on circumstances – notably the COVID-19 pandemic (see more in 4.6i) – interviews with CEOs and/or representatives of respective SEs and SIOs were conducted either in person (a total of 26 interviews with SEs and 2 with SIOs) or online via Zoom or Microsoft Teams (a total of 22 interviews with SEs and 5 with SIOs). Interviews with three local authorities from the HCC were conducted online. Initial networking, sampling, and interviewing began in Hull in November 2018. This also involved establishing contacts with a number of SEs in other geographical contexts (e.g., Argentina, Colombia, Mexico, Phillipines) through online search and personal connections, which were then followed by email correspondence and informal conversations via Zoom and Skype. As such scoping and networking with SEs outside Hull progressed, the researcher decided to enrich this research with Chilean case study SEs due to reasons already mentioned in 4.3.2. The researcher also conducted thirteen interviews with *heidenspass* employees during her two-week stay in Graz in November 2019. Following her research trip to Graz, the researcher continued networking and establishing contacts in Hull and Chile until she set off to Chile in March 2020 to conduct 10 interviews in-person. Unfortunately, following the outbreak of COVID-19, the researcher had to shorten her stay in Chile from approximately eight weeks to ten days. As a result, the subsequent eight interviews with SEs in Chile took place online. Due to COVID-19, the researcher conducted 14 interviews online and 18 interviews in-person with representatives of SEs in Hull<sup>12</sup>. Three representatives from the HCC and representatives from five SIOs were likewise interviewed online. Under the circumstances associated with COVID-19, in-person interviews took place when restrictions associated with COVID-19 were relaxed and interviewees were more comfortable with in-person meetings. The interviewing process, both online and virtual, lasted until April 2021.

The shortest interview lasted approximately 30 minutes and the longest approximately 120 minutes. All the interviews were recorded and transcribed. Some interviews with Chilean entrepreneurs were conducted in Spanish, but only those quotes that were quoted in

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<sup>12</sup> An exception concerns the case of Community Re-paint Hull & Humber whereby the interview took place with the representative of Community RePaint (UK-wide central organization based in Bristol) due to difficulties in reaching representative responsible for the branch in Hull.

ensuing chapters were translated into English<sup>13</sup>. All the interviews (except those conducted with SEs in Chile and Graz<sup>14</sup>) were additionally coded using NVivo 12 software. Coding allowed the extraction of key emergent themes and demi-regularities at the empirical level of reality. This flexible and deductive process of coding and data analysis is congruent with critical realism insofar as it facilitated the identification of empirical regularities (i.e., similar themes) occurring across case studies. More importantly, it enabled identification of causal mechanisms and conditions shaping the adoption of CE practices by the enterprises investigated. In several cases, the presence or absence of causal mechanisms and contingent conditions was further corroborated using other methods such as mapping sessions (4.4.2); Social Network Analysis (SNA) (4.4.3); and/or participant observation or video making (4.4.6). When analysing data, the researcher constructed Tables featuring some of the key research findings (see Appendix 3 and Appendix 6).

#### 4.4.2 Combining Semi-structured interviews with Mapping Resource Flows, Actors and Values

##### *i. Mapping Resource Flows and Stakeholders*

In this research, 21 face-to-face interviews and one virtual interview were complemented with a visual method of mapping inter-organizational flows of tangible and intangible resources (material inputs and outputs) to/from a given SE (see Table 4.1 in 4.3.4). While such visual methodologies are generally associated with the promotion of a participant centric approach (cf. Striepe, 2021), in this research the researcher largely mapped resource flows between respective actors by herself during the interviewing process. This was due to interviewees' limited time, and, to some extent, restrictions imposed by COVID-19 (running such mapping sessions online was likewise time-consuming). There were, however, some exceptions whereby interviewees used sticky notes to map stakeholders associated with their activities (see Figure 4.2 below) or participated in an online workshop during which they used virtual sticky notes when mapping stakeholders (see 4.4.7).

Crucially, mapping of resource flows served to (1) uncover the structural properties of SEs' individual connections with external actors, i.e., ego-networks, (Chapter 6), and (2) set the

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<sup>13</sup> As mentioned in 4.4.1ii, the researcher speaks Spanish fluently so there was no need to hire an interpreter. In case the researcher encountered some difficulties in translating some parts, relevant interviewees were asked for clarification.

<sup>14</sup> In such cases interview transcripts were thoroughly read several times whilst some key findings and themes were being manually highlighted and were placed in the Table attached in Appendix 3 and Appendix 6.

ground for exploring scaling pathways (Chapter 7). In the former case, key measures included: (1) type of relationship depending on the resources being exchanged (e.g., business/social); (2) trust (1-5)<sup>15</sup>; and (3) frequency of interaction (1-5). Such maps also included mapping of key strengths of a given enterprise (see middle circle in Figure 4.3). As Figure 4.3 further reveals, results from mapping were transferred into an online software (Microsoft Visio) to facilitate readability, where deemed necessary.

In the case of SEs from Hull, such mapping was facilitated by providing entrepreneurs with a roster of SEs and SIOs based in Hull and constituted a vital part of data collection process for the Social Network Analysis (SNA) and uncovering of the broader social-circular enterprise ecosystem in the city (see 4.4.3).

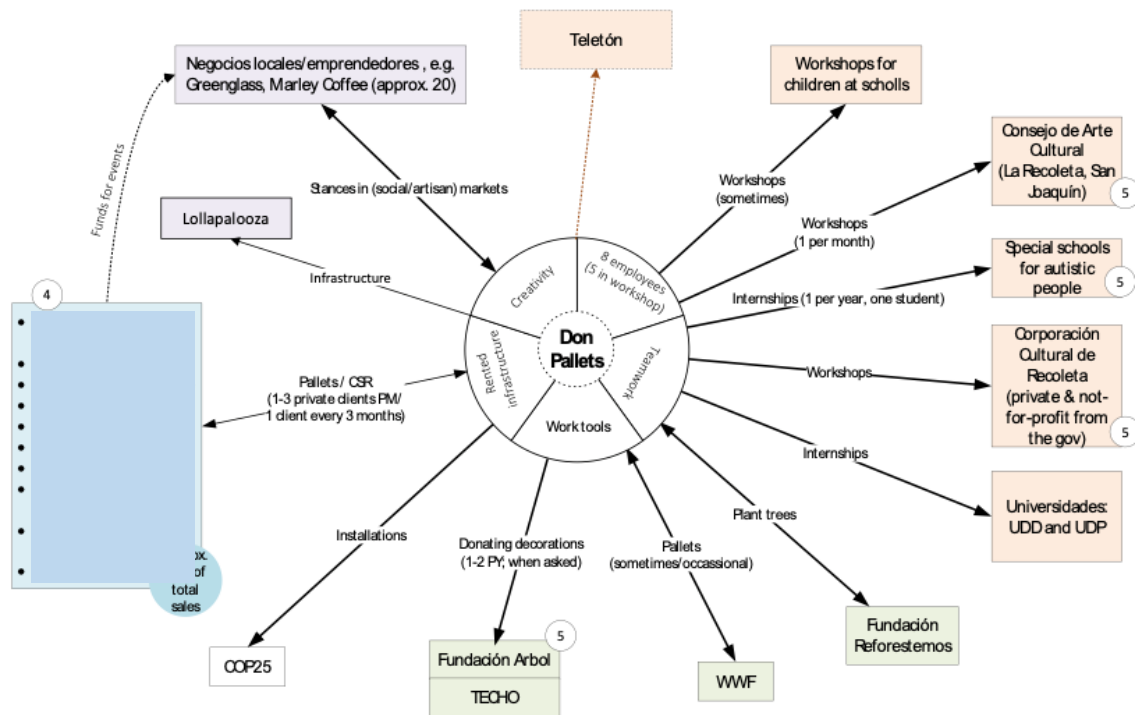


**Figure 4.2 - Stakeholder and resource mapping session with CEO of Don Pallets in Santiago, Chile**

Note: Photograph taken by the researcher in March 2020. Different colours of sticky notes indicate different types of sectors (e.g., public, social, private).

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<sup>15</sup> Likert scale was used mainly for in-person enterprises in Chile.



**Figure 4.3 - Outcomes of stakeholder and resource mapping session with CEO of wood recycling SE, Santiago (Chile) (March 2020).**

Note: Numbers in circles indicate levels of trust (from 0-5). Private companies with approximate volumes of wood in circulation (blue box) were hidden.

ii. *Mapping Values using Value Mapping Tool*

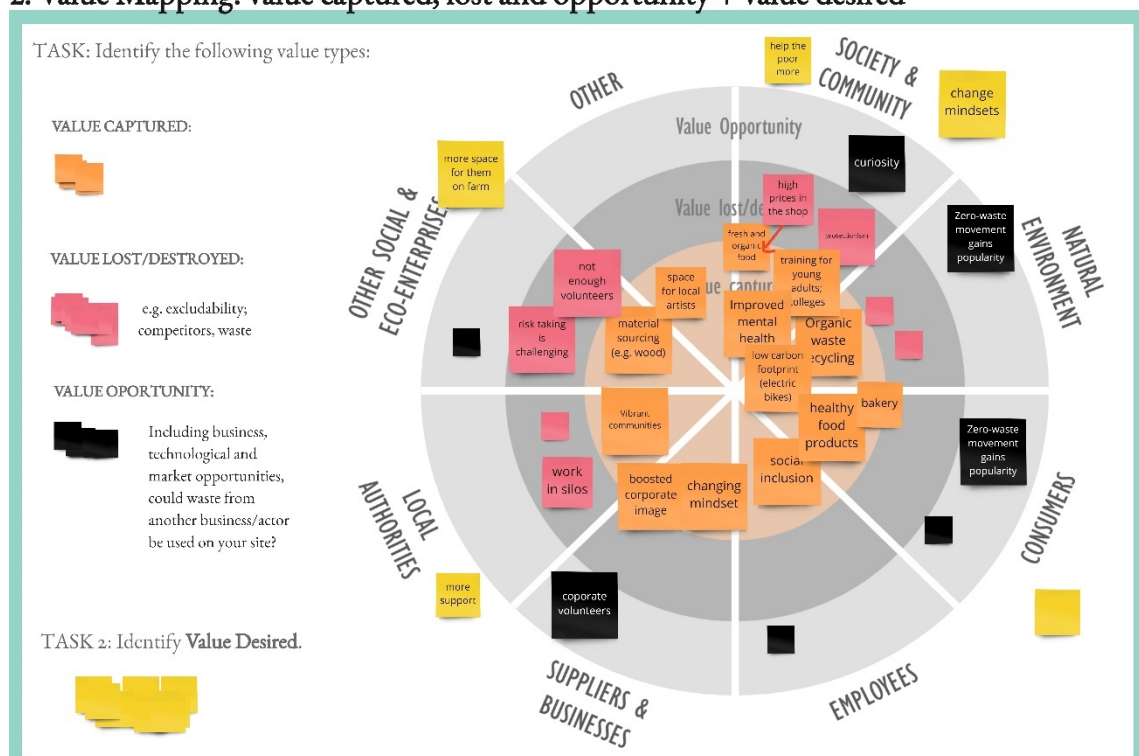
Another aim of mapping sessions was to map value outcomes associated with performed activities with a view to improving knowledge of the circuits of value underpinning the local development of the CE (Chapter 5). This took place in the case of two case study SEs, namely, *heidenspass*<sup>16</sup> (Graz, Austria) and *Rooted in Hull*<sup>17</sup> (Hull, UK), and was facilitated by the Value Mapping Tool (VMT). Developed by Rana et al. (2013), VMT is a subjective value mapping technique used to better identify value creation, delivery, and capture, and hence value outcomes associated with organizations’ activities. In this research, the VMT aided the

<sup>16</sup> *heidenspass* was selected for the use of the VMT due its broad spectrum of economic spaces and associated circular economy-related work activities, materials, and alliances, which provided an opportunity to investigate complex diverse circuits of value underpinning the local development of the CE (Chapter 5). See Figure 4.5 illustrating mapping session with *heidenspass* employees that took place in-person in November 2019.

<sup>17</sup> In case of *Rooted in Hull*, VMT constituted part of the virtual participatory workshop to test Integrated Social-Circular Value-Impact Scaling Framework (ISCIRVIS) (see 4.4.7 and 8.2).

mapping of use and exchange values attached to flows of labour, materials, and money in the local CE, and ensured that the study incorporated perceptions of value outcomes across the social, environmental, and economic dimensions of sustainability. VMT distinguishes between four conceptions of value: (1) *current value proposition* of a company; (2) *value destroyed* (i.e., negative social or environmental impacts) that may be re-conceptualized as (3) *value missed* (i.e., under-utilized assets, resources, capabilities, and failure to capture value); and (4) *opportunities for new value creation* (i.e., new value-generating activities, relationships, and network reconfigurations). For simplicity, this study combines ‘value missed’ and ‘value destroyed’ into one category of *value lost*. By specifically referring to value lost, it is advisable to identify competitors. Only by knowing competitors it is possible to make sure that any products are implemented ahead of them, ultimately attracting new market segments, and improving organizational performance (Lee et al., 2001). Knowing ‘complementors’ (i.e., value opportunity) is likewise important when planning for contingencies, financial buffers, and loyal customers (Morris et al., 2020). In case of Rooted in Hull, entrepreneurs were additionally asked to identify *value desired* to prompt them to think about desired future prior to exploring respective scaling pathways and feasibility of pursuing thereof (see Figure 4.4 below).

## 2. Value Mapping: value captured, lost and opportunity + value desired



**Figure 4.4 - Value Mapping: value captured, lost, opportunity, and desired (case study: Rooted in Hull)**

Adapted from Rana et al. (2013). Note: Results stem from the mapping session taking place during the virtual workshop (see 4.4.7), which incorporated work on Miro Boards with three representatives of Rooted in Hull (May 2021). See Appendix 7 for higher resolution.



**Figure 4.5 - Value Mapping Tool in practice in Graz, Austria**

Photograph taken by the researcher (2019) (in the picture: *heidenspass* staff). Also published in: Lekan et al. (2021a).

Overall, VMT painted a largely enterprise-centric picture as the mapping exercise highlighted *heidenspass* and Rooted in Hull employees' perceptions of value outcomes associated with their activities for 1) young employees, 2) private firms, 3) customers<sup>18</sup>, 4) environment, 5) society, and 6) local authorities. Such an approach illuminated the more intangible aspects associated with participants' perceptions on their work environment and work activities. More specifically, the VMT served as a means of untangling and interrogating circuits of value underpinning tangible and intangible resource flows whilst identifying any potential and existing threats/risks associated with respective stakeholders and external conditions.

Linked to the VMT tool, this research employed some of the principles from the Value Network Analysis (VNA) approach, which evaluates the tangible and intangible assets of an organization (Allee, 2008). While VNA concerns the mapping of both internal and external ecosystem, this research focuses on the external ecosystem, meaning that SEs' ego-networks were analysed in terms of the networked value creation. Crucially, two SEs (*heidenspass* and Rooted in Hull) participated in the value mapping sessions due to (1) limited time availability of interviewees representing other SEs to participate in such an exercise, and (2) the outbreak of COVID-19. Nonetheless, in some cases actual value outcomes (i.e., value outcomes generated through

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<sup>18</sup> In case of *heidenspass* the researcher also complemented the mapping of different *circuits of value* with findings from eight customer service feedback forms from the shop and eatery, and which were translated into value outcomes specific to customers.

production/exchange/circulation of respective goods and services) were independently identified by the researcher based on the findings from the interviews and mapping resource flows (4.4.2i). This enabled an analysis of value to be layered on material resource flows, thereby enriching the discussion on *circuits of value* (Chapter 5). Such findings are, however, likely to be highly subjective or ‘perceived’.

#### 4.4.3 Social Network Analysis (SNA)

This research adopts Social Network Analysis (SNA) approach (Wasserman & Faust, 1994), which seeks to identify and study, both qualitatively and quantitatively, complex relationships among social organizations, highlighting the ego-networks of respective enterprises, which might constitute a social circular enterprise ecosystem in Hull, UK (Chapter 6). This section briefly discusses the rationale behind the adoption of SNA and describes how social network data were gathered and analysed.

SNA approach has its origins in the field of sociology and is often applied to identify, map and analyse complex (social) relations (i.e., ties) among various ‘actors’ (i.e., nodes) within a specific system (for example, people, departments, firms) (Wasserman & Faust, 1994; Uzzi, 1997). One of the key outcomes of this method are graphs/maps of connections, which can be used to foster the understanding of some of the key structural characteristics of a social network, including its weaknesses and key positions of (influential) actors within a given network (Wasserman and Faust, 1994; See 3.3). By helping to identify some of the powerful actors that may influence policy, foster knowledge transfer or develop some important interventions, SNA has been employed as a tool helping to prioritize actions and aid decision-making processes, including those related to natural resource management (Paletto et al., 2016; Hauck et al., 2015; Buckingham et al., 2018; Bodin & Prell, 2011). When linked to Value network analysis (4.6), SNA can thus help to highlight where value lies in a given network, yet alongside potential pathways enabling to create it.

In this research, SNA, is used to strengthen multi-stakeholder analysis by painting the broader social circular ecosystem landscape. This is even more relevant given that demonstrating collaborative efforts of SEs reliant on financial grants is increasingly appreciated among donors who become more specific in their funding requirements (Johnson et al., 2010; Rijn et al., 2021). Crucially, SNA helps to identify and (re-)interpret key sets of relationships and patterns, including linkages between local and non-local structures, as well as explain why and how particular network ties (both formal and informal) of respective SEs are formed/maintained and cease to exist. As White (1992), who recognized that networks are shaped by particular discourses and stories, noted: “*a tie becomes constituted by story, which defines a social time*

*by its narratives of ties*” (page 67). Crucially, in this research SNA helps to explain how particular network ties not only enable the development of CE but could be also potentially instituted in such a fashion that the adoption of CE thinking and practice is enabled. SNA thus helps to better assess the capacity of SEs under scrutiny to incorporate CE principles into their mainstream activities through (already existing and potentially existing) network connections (RQ2.2). Stated differently, SNA enables to evaluate (the role of) collaborative capacity of SEs to generate social circular impact. Such potential formation of new ties that may foster diffusion and development of social circular innovations (via boosted (re-)circulation of relevant resources such as materials and knowledge) is possible through identification of structural holes within a given network (i.e., potential connection links between specific actors/organisations), as well as brokers who are behind (local) knowledge spillovers and formation of interlocking, cross-sectoral networks (Burt, 2004; See 3.9.2iv).

As circulation or exchanges of specific resources between respective actors in a given network may result in the formation of trust between those partners, SNA can help to demonstrate the formation of (inter-)organisational social capital understood as differential levels of trust, and hence variegated strength of ties that are integral to collaborative capacity and may be either one-way or dyadic (See 3.9.6). Given that SNA focuses on social relations, it has also been applied in studies measuring social capital (Lakon et al., 2008). Nonetheless, due to the data-intensive nature of SNA, it was impossible for the researcher to obtain levels of trust for each tie (i.e., measure strength/weakness of ties) that is (in)directly linked to promotion and development of CE activities (i.e., by using Likert scale from 1 to 5 whereby 5 indicates the highest degree of trust and 1 the lowest degree of trust in relation to a particular actor, cf. 4.6). Social value understood as trust was thus not measured quantitatively but was, instead, evaluated qualitatively using data obtained from semi-structured interviews. On the other hand, had numerical values been obtained, the results would have been necessarily highly representative of all staff members from the same organization.

By adopting SNA, it is possible to better demonstrate the interplay of actors across formal/mainstream-informal/alternative economic spheres (RQ1). However, SNA does not enable to depict the broader social, economic and environmental settings in which SEs are embedded. For this reason, this approach is complemented with Critical Realism approach (4.2). As Buch-Hansen (2014) highlighted, for this reason a combination of SNA and critical realism can be mutually enriching. Crucially, SNA results can help to discover collaborative common ground and connectivity within the broader complex ecosystem whereby the mapped SE ecosystem in Hull can help to challenge any possible ‘silo mentality’ that often prevents diverse actors from noticing the broader existing and potential cross-sectoral



interconnections. Presumably, such ‘systemic awareness’ could motivate diverse stakeholders to stay connected and work towards shared goals (cf. Staicu & Pop, 2018). Linked to this, the results are expected to encourage decision-makers to invest in social infrastructure in such a fashion that it is possible to unlock the potential for more local and community-driven circularity in the city (see Recommendations in Chapter 9).

*i. Practice and Analysis*

SNA was adopted to study a *social circular enterprise ecosystem* in Hull, UK. The data comprising respective ties between SEs was obtained via semi-structured interviews (4.4.1), many of which were complemented with mapping of resource flows between respective actors that facilitated identification of ties (4.4.2i). Out of approximately 74 SEs identified using snowball sampling and online search, 38 agreed to participate in the study and it was possible to map the ego-networks of 31 of these to the researcher’s best capacity. The seven organizations that were not mapped largely concern support infrastructure organizations (SIOs), which have multiple links that are especially difficult to map in their entirety (see Table 4.2). The researcher decided not to employ a self-report survey after experiencing low engagement of participants in filling out surveys during the early stages of the data collection process. A more effective approach proved to be interviewees reporting their ventures’ ties to particular actors based on (in)tangible resources being accessed/shared, i.e., using the ‘resource-generator technique’ (Hansen, 2009); and showing them how they are embedded within the broader social ecosystem landscape. The interviewees were also provided with roster showcasing approximately 130 social sector organizations to aid identification of ties. In order to better structure interviews and facilitate identification of ties occurring across sectors, the interviewees were asked about their most important connections to social, public and private sectors, respectively. Wherever possible, they were asked to state not only the number of ties to respective sectors but also name respective organizations.

In addition, the network data was complemented with secondary data sources, particularly social media websites of respective enterprises (see 4.4.5). This facilitated ground truthing whereby objective (provable) data was found. Identified ties were then transferred into a matrix in Excel spreadsheets and converted into a graph using online kumu.io software ([www.kumu.io](http://www.kumu.io)). Values such as degree centrality as well as centrality, closeness and betweenness were calculated using kumu.io software. Overall, whilst the resulting map is not exhaustive due to constraints associated with data collection (see 4.6), it is strongly indicative of the broader *social circular ecosystem* in the city.

SEs were further categorized into the following key 10 clusters/categories to highlight cross-cluster linkages for the development of a socially inclusive CE: 1) food, 2) furniture, 3) clothing & other textiles, 4) arts & crafts (wooden/textile/cardboard/other), 5) construction/housing, 6) hygiene, 7) electronics, 8) disabled, 9) elderly, 10) mixed/other (in terms of materials). Some 'clusters' were hence distinguished on the basis of client/beneficiary (e.g. elderly). Some of the less dominant categories represented by the same SEs, and which were likewise distinguished on the basis of client/beneficiary are as follows: mentally struggling; ethnic minorities; homeless; ex-offenders; prisoners; vulnerable youth; children; refugees and asylum seekers; unemployed; women and alcohol addicts (see Table 6.1 in 6.2). Crucially, these clusters with underlying cross-sector interlinkages only serve as a departure point for the disclosure of many other existing and potential cross-sectoral linkages upon putting ego-networks of respective SEs under scrutiny. In addition, the generated network graph is complemented with a geographic map showcasing spatial positioning of respective SEs under study (see 6.4). Many of these SEs, however, act as satellites across the city and often rely on other social sector organizations to offer goods and services (including workshops) in their premises. Their geographic positioning in that particular map is thus not necessarily indicative of the spatial scope of delivery of their activities.

#### 4.4.4 Community Assets Mapping and SNA: A Perfect Duo?

Complementing the SNA, this research employed asset-based community development approach (ABCD) which involves collaborative mapping of community assets helping to identify and valorise local strengths, capacities and opportunities for better access to, and use of, local assets that any given community considers to be of value to them (e.g., landmarks, unused spaces, skills, local goods or services) (Beaulieu, 2002; McLean & McNeice, 2012). Consistent with the interpretivist and pragmatic approach, such a participant-centered approach helps to gain a better understanding of local people's (i.e., those concerning actual and potential consumers and prosumers of social-circular goods and services) perspectives on promoting CE in the city. Given that interactive ABCD approach embodies visual methodologies, this method also creates opportunities for deeper reflection, helping to understand participants' day to day realities and struggles.

McKnight and Kretzmann (1996:4-13) distinguished three *building blocks* of assets, namely: (1) *primary building blocks* (e.g., skills, abilities, resources and experiences of individuals and organizations), (2) *secondary building blocks* (e.g., schools and libraries), and (3) *potential building blocks* (e.g., access to social welfare). ABCD is hence capacity oriented. In addition, Ennis and West (2010) distinguished two variations of such strengths-based practice: (1) *internal looking aspects* that refer to "*locating, articulating and building upon assets*" (page

405), and (2) *external looking aspects* that involve working to “*recognize, understand, and at times challenge social context or structures that negatively impact people and communities*” (page 405). The external looking aspects of ‘micro-relationships’ may hence either reproduce challenging social systems or promote policies at the macro-level that recognize socio-environmental initiatives and enable communities to enter into the dialogue with authorities as valuable rather than solely ‘needy’ stakeholder (Mathie & Cunningham, 2003). Such efforts remain, however, underrepresented in the ABCD literature whereby communities do not challenge the dominant economic structures. Known weaknesses of the ABCD approach concern its lack of evidence base for practice and theory building, dearth of theoretical profundity, and lack of acknowledgement of the causes of, and multiple structural barriers behind, the disempowerment at the macro level, and thus its limited impact on macro level structures/institutions (Ennis & West, 2010).

This research sought to conjoin community-based asset mapping with SNA approach (4.7) to better investigate the capacity of SEs to adopt and/or upscale CE thinking and practice at the local level. Integration of key concepts from social network theory into asset-based community development practice and research has been already proposed by Ennis and West (2010; 2013) based on the premises that SNA can help to understand the ability of asset-based and strengths-based community development projects to produce desired outcomes, including their potential to enact, and identify opportunities to enact, changes in social macro-level structures. This is because both ABCD and social network theory have in common the focus on social relations, which can be mobilized to work towards a positive change; enable resource/asset transfer, sharing and exchange; and are assets themselves. ABCD can complement SNA with an asset inventory (that includes spatial positioning of respective assets) so that organizations mapped as part of the SNA could explore, through feedbacks of social demand, what is of value to local communities in some of the most deprived parts of Hull. Once aware of what is of value, SEs and their networks could then potentially capitalize on relevant assets. Social network theory can, in turn, help to better understand structural network features surrounding particular assets (including relations), as well as power relations embodied in the ownership of, and (lack of) access to, specific assets by particular SEs and their networks (Ennis & West, 2010; 2013). These assets may include *non-market capitals* that were referred to as “*a modern incarnation and extension of the traditional type of ownership, known as the commons*” (Johanisova et al., 2013:13). Highlighting such assets is even more important given that assets such as land or natural resources, which used to be traditionally communally owned, have undergone significant changes in their ownership structures with the encroachment of neoliberalism (Ostrom, 1990).

In this research, the ABCD approach was employed to identify several tangible and intangible assets in the city, which were not identified during the network mapping using SNA. In so doing, it draws upon the Seven Community Capitals Framework (Flora & Flora, 2008) that recognizes financial, built, social, human, cultural, natural, political, and human capitals as central to building of a healthy ecosystem. These capitals can be further complemented with spatial capital (Alevizou et al., 2016). For example, by identifying built and spatial capital in the form of vacant buildings it is possible to highlight spaces where CE activities could be potentially taking place and/or be upscaled (see Chapter 7). In other words, the presence of, and access to, complementary spatial assets such as buildings is an essential component that can help to obtain circular value from given resources and capabilities. Linked to this, ABCD can help to formulate policy recommendations highlighting ways in which respective assets forming community stocks could be co-created, reconfigured and distributed. For instance, some assets, which could be leveraged for the local development of the CE, could be transferred from local authorities to community-based SEs through a mechanism known as 'asset transfer' (Foot, 2012; Alevizou et al., 2016; see 7.3.1). By forging links between SEs and non-human objects/artefacts such an approach is somewhat consistent with the actor-network theory, which recognizes that human and non-human objects in two ontological realms - social and natural - (co-)exist within ever-changing networks of relationships (Latour, 2005).

Given that not all the SEs under scrutiny were found to be embedded in their surrounding local communities, acknowledging local community assets can help to find potential synergies between SEs, especially micro-entrepreneurs/ solo-traders, and respective assets upon which SEs could capitalize to promote diverse circular economies in local communities. Such reasoning is consistent with the subjectivist entrepreneurial theory, which focuses on *“individuals, their knowledge, resources and skills, and the processes of discovery and creativity, which constitute the heart of entrepreneurship”* (Kor et al., 2007:438), and thus recognizes the need of entrepreneurs to tap into variegated types of (community-based) resources in order to foster capacities of both entrepreneurial ventures and local communities to innovate (Sarkar, 2018). In addition, by considering ties associated with SEs under study, SNA complements ABCD approach with a broader, extra-local and cross-sectoral perspective, which recognizes the structure/nature of relationships underpinning the network and can help to strategically forge new links between communities (both deprived and wealthy) and assets within and outside their boundaries. In so doing, it is possible to investigate the creation of the 'possibility spaces' that host new and vital forms of materiality and bring hope for building better futures (Hobson, 2016). Above all, this approach uncovers some conditions upon which scaling social-

circular innovation is contingent. These include willingness of local residents to engage in circular activities.

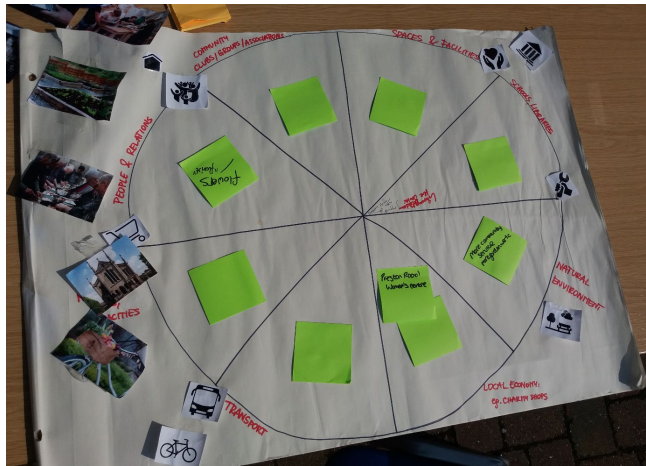
*i. Practice and Limitations*

Although this research focused on identifying community assets understood as SEs/community-based organizations and their networks across the city, it placed special emphasis on mapping community assets, other than SE networks, in East Hull (HU9). East Hull was chosen because it is known as a highly deprived part of the city that hosts one of the biggest food deserts in the UK (Corfe, 2018). Moreover, Hull is not only largely insular in that public transport is limited but it is also marked by high levels of crime (Kingston Upon Hull Data Observatory, 2022). The mapping sessions were conducted over the course of 3 days took place in September 2020 when COVID-19-related restrictions were relaxed. During the first round, beneficiaries of the Hull Community Shop (run by EMS – Cresting project’s partner) were asked to identify what they value in their local community by populating canvas sections with their information. The canvas consisted of the following categories: (1) space & facilities; (2) physical/natural environment; (3) people & relations; (4) *my* [individual respondent’s] skills, gifts, and capacities; (5) transport; (6) institutions; (7) local economy; (8) community/cultural groups, clubs, associations. They were also supported with images that acted as visual cues (see Figure 4.6, 4.7 and 4.8 below). The identified assets were then viewed through the lens of the CE (see Appendix 4 for an overview of research findings from mapping sessions).



**Figure 4.6 - Community Assets Mapping canvas for beneficiaries of the Hull Community Shop in East Hull**

Note: The canvas was populated in September 2020; photograph taken by the researcher.



**Figure 4.7 - Community Assets Mapping canvas for beneficiaries of the Hull Community Shop in East Hull**

Note: The canvas was populated in September 2020; photograph taken by the researcher.

When asked about the strengths of their neighbourhoods, many of the respondents immediately proceeded to report deficiencies, needs and constraints rather than identifying opportunities to develop the CE locally. In this way, they seemed to be more eager to proceed to envisioning their ideal community rather than identifying community assets – the former exercise likewise involving visual aids and some guiding questions (e.g., as to whether ‘circular assets’ such as charity shops are important to them) (see Figure 4.8 below).



**Figure 4.8 - Canvas used to learn about the ‘ideal vision of a community’ among beneficiaries of the Hull Community Shop in East Hull**

Note: The canvas was populated in September 2020; photograph taken by the researcher.

When interacting with local residents in East Hull, the researcher additionally asked them whether they would be potentially interested in (1) growing and/or composting organic food waste in urban farms; (2) making DIY personal hygiene products (e.g. soap bars) and detergents; (3) using reusable sanitary pads (question for females only); (4) exchanging items with others (e.g. clothes swaps); (5) rentals; (6) purchasing meals in returnable glass jars to avoid plastic waste. Answers to these questions helped to broadly explore the potential for scaling already existing circular activities into some of the most impoverished parts of the city and creating new circular ventures (see Chapter 7).

Overall, the findings from community-based asset mapping enabled to craft more informed policies and recommendations for interventions that could be transformed into a better Action Plan for more circularity in the city (Chapter 8). The results also enabled to suggest ways how identified assets could be potentially catalysed, retrieved and combined so that they could be infused with a new purpose and result in innovative solutions and improvements to previously conceptualized aspects that local people would like to ameliorate (cf. McLean, 2012). The identified assets and community needs were thus taken into account when considering (1) socio-spatial scaling strategies of SEs (7.4) and (2) creation of new ventures in the most deprived part of the city (7.5).

Presumably there are many other assets that could have been identified in case more residents participated in the study. Drawing upon anti-essentialist approach, only by engaging a wide range of people and voices it can render positive social impact (Foot, 2012); although there are challenges associated with grasping/mapping the multitude of (in)tangible resources in their entirety, hence potentially resulting in recommendations that could not be endorsed by the majority of residents. In any case, such collaborative mapping is time consuming and engaging many community members was very limited due to restrictions imposed by COVID-19. Another limitation concerns the fact that similarly to the network map/graph generated by SNA, the geographic map featuring some of the identified community assets is likely to become easily outdated due to the ever-evolving socio-economic landscape, and more specifically, due to the transitory nature of alternative economic spaces (Labaeye, 2017).

On an extra note, the researcher realized that such asset mapping could benefit from respondents identifying community assets on an actual geographic map. In this way, some of the reported (tangible) assets in HU9 in East Hull could be placed as an additional layer in the geographic map featuring spatial positioning of respective SEs in the city to facilitate the process of seeking synergies between assets to benefit many deprived residents. Any additional mapping sessions did not, however, occur due to time constraints and COVID-19,

which hindered contact with potential respondents. Since some residents occasionally referred to community needs and assets in parts of the city other than HU9, it is recommended that such mapping covers areas other than HU9 (see 8.5i).

#### 4.4.5 Secondary Data Sources

In addition to primary interview data, this research drew upon secondary resources in the form of organizational reports, policy briefs, white papers and websites (especially websites of all SEs), which facilitated documentary analysis, enabled corroboration of the results from interviews, and enriched the research with statistical data (e.g., in terms of recycling rates of respective materials). Some of those resources were provided by representatives of the respective organizations. Websites, including social media, enabled to identify relationships between respective organizations to complement network mapping (cf. 4.4.3). Such an approach was used to establish ground truthing whereby the objective data was collected.

#### 4.4.6 Participant Observation and Video Making

Participant observation was conducted in 21 SE settings, especially prior to restrictions imposed by the COVID-19 pandemic. They were followed by the interviews and were recorded in the field diary or in the form of video clips in case of Chile. Participant observations in case of Hull were ingrained in the researcher's memory or video recorded. Participant observations in case of Graz were video recorded. Crucially, participant observation enabled the researcher to gain insights into the workplace-customer dynamics (e.g., *heidenspass*, Eternal Benefits, EMS) or workplace dynamics (e.g., Don Pallets, Enviromail). The participant observation occurred on several occasions in case of EMS (i.e., Environmental and Management Solutions, Ltd.) - Cresting project's partner – a SE that hosted the researcher as part of the Cresting project's secondment, which involved conversations with local residents and community asset mapping (4.4.4); or participation in a number of community events such as enterprise's anniversary and Christmas hampers (see Cresting ITN, 2020a).

In case of 10 SEs, participant observation was complemented with video recording/videography. In case videos were published, this was intended to provide a better online narrative for the 'offline' impact<sup>19</sup>. The produced videos have an ethnographic character and promote not only participant-centric approach but also reflexivity. This is because they depict activities of, and occasionally testimonies of, actors in their natural settings (e.g.,

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<sup>19</sup> While video recording took place in case of 10 SEs, not all the videos were published - some of them only served as a way of recording interviews and SE settings for corroborating research findings.



workers) (cf. Carroll et al., 2008). Videography and empirical observations additionally enabled corroboration of the results from interviews and mapping sessions. For example, both approaches interrogated the extent to which SEs' waste management practices, which were often described by interviewees as sustainable, were in fact sustainable. Where such ground truthing, whereby information is known to be real or true through direct observation, was impossible, the researcher additionally used evidence from secondary data sources (4.4.5). Besides, videography enabled the researcher to communicate research results to (non-)academic audience in the form of animated graphs (see Cresting ITN, 2020a; Cresting ITN, 2020b; Cresting ITN, 2020c; Cresting ITN, 2020d; Cresting ITN, 2020e; Cresting ITN 2021). Some videos also boosted social media marketing of SEs being featured (e.g., EMS).

#### 4.4.7 Virtual Workshop: Testing the Integrated Social-Circular Value-Impact Scaling Model

This research included one virtual workshop with three representatives of Rooted in Hull – a SE running an urban farm in Hull. The purpose of this workshop was to test the Integrated Social-Circular Value-Impact Scaling Model (ISCIRVIS) that was designed to help SEs to explore impact scaling strategies (see 8.2 and 8.3). The workshop took place in May 2021 and via Microsoft Teams and Miro Boards due to restrictions caused by COVID-19<sup>20</sup>. Once tested, any necessary amendments, including auxiliary materials, were incorporated into the model to maximize its usefulness for other users (see Toolkit in 8.3 and Appendix 8). Rooted in Hull was selected for this exercise due to its openness to researchers and a broad range of offered CE activities. While such online collaboration and communication with and between various stakeholders enables to simultaneously connect multiple stakeholders, the same strength can be perceived as a weakness. For example, such online interactions are very likely to translate into lower quality of data when compared to collecting data in-person, as well as lower levels of trust between interacting parties when compared to workshops taking place in person (cf. Gruzdt et al., 2012; see more in 4.6).

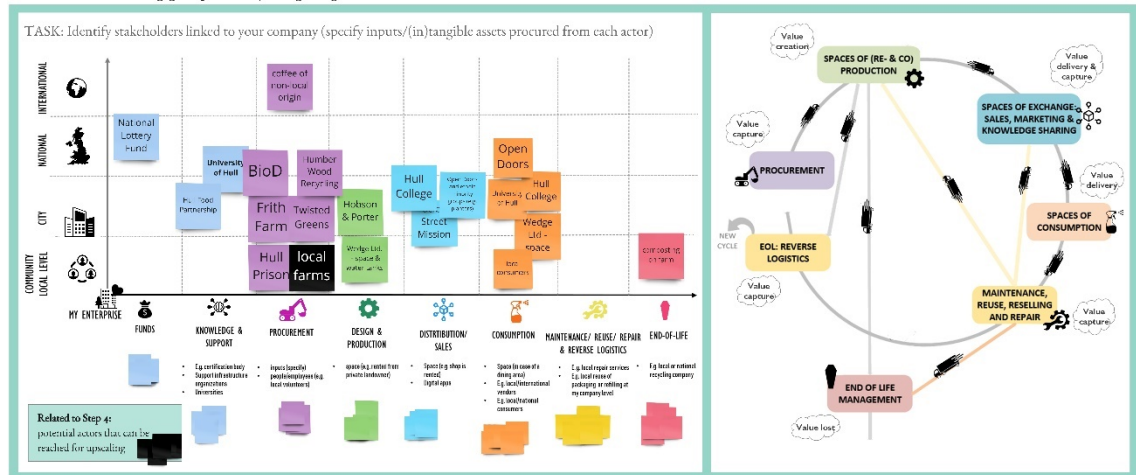
Workshop participants used the *Stakeholder Mapping Template*, which enables the mapping of stakeholders from a life cycle perspective and in the context of four key spatial scales, namely the community or local level, city level, national level and international level. The latter explicitly recognises the contribution of 'scalar spatiality' in the empowerment of SEs (see Jonas, 1994). Figure 4.9 below exemplifies such template, which was tested with Rooted in

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<sup>20</sup> The canvas on Miro Boards were tested only once by one SE (Rooted in Hull) due to limited time capacity of the researcher to test the model on other SEs. COVID-19 likewise impeded research (see 4.6i).

Hull during a virtual workshop session. Workshop participants were also asked to specify, using virtual sticky notes, any inputs/(in)tangible assets associated with each identified stakeholder.

#### i. Stakeholder mapping: life cycle perspective



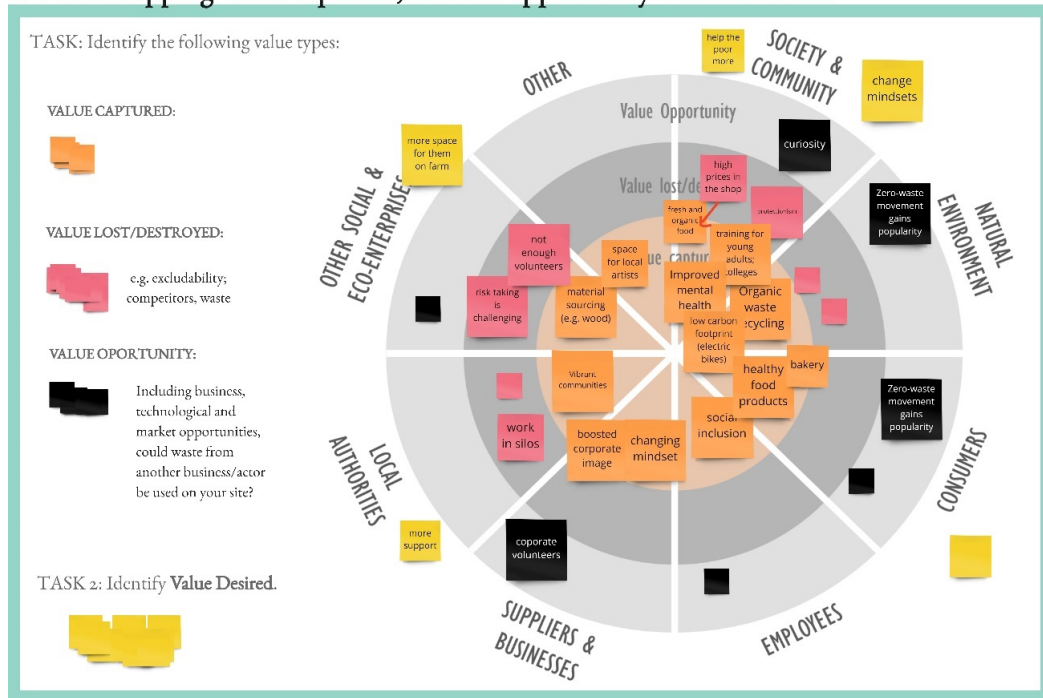
**Figure 4.9 - Stakeholder mapping: life cycle perspective (case study: Rooted in Hull)**

Note: Results stem from the mapping session incorporating Miro Boards with three representatives of Rooted in Hull (May 2021); see Appendix 7 and *Auxiliary Canvas C* in Appendix 8 for higher resolution.

Such stakeholder mapping was then followed by the Value Mapping Tool (VMT), which enables to identify value captured, lost, opportunity, as well as value desired (see Figure 4.10 below and 4.4.2ii introducing VMT). The intention behind asking entrepreneurs to identify *value desired* was to prompt them to think about desired future prior to exploring respective scaling pathways and feasibility of pursuing thereof<sup>21</sup>.

<sup>21</sup> This research suggests that entrepreneurs could better evaluate (actual and desired) value outcomes and identify scaling pathways in case entrepreneurs using VMT could specify whether identified values are short-term or long-term (cf. Kurznack et al., 2021). The short-term or long-term nature of values is therefore proposed in additional canvas, which constitutes part of the Toolkit presented in Conclusions (see Figure 8.5 in 8.3 and Canvas B in Appendix 8).

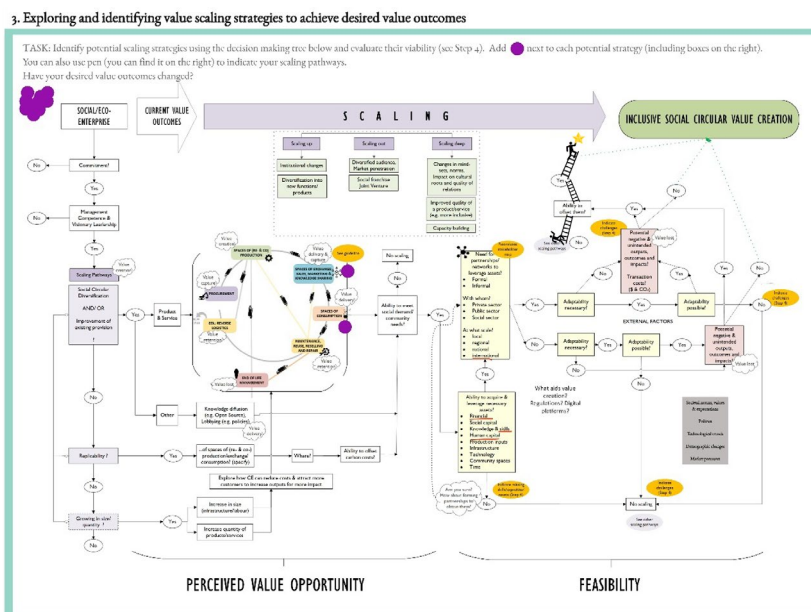
## 2. Value Mapping: value captured, lost and opportunity + value desired



**Figure 4.10 - Value Mapping: value captured, lost, opportunity, and desired (case study: Rooted in Hull)**

Author’s design after Rana et al. (2013). Note: Results stem from the mapping session incorporating Miro Boards with three representatives of Rooted in Hull (May 2021); see Appendix 7 and Auxiliary Canvas D in Appendix 8 for higher resolution.

Value mapping was then followed by the exploration of respective scaling strategies using ISCIRVIS model (Figure 4.11), which was complemented with a list of different scaling pathways associated with respective economic spaces (Figure 4.12).



**Figure 4.11 - Value Mapping: value captured, lost, opportunity, and desired (case study: Rooted in Hull)**

Author’s design Weber et al. (2012). Note: See Appendix 7 and Canvas A in Appendix 8 for higher resolution.

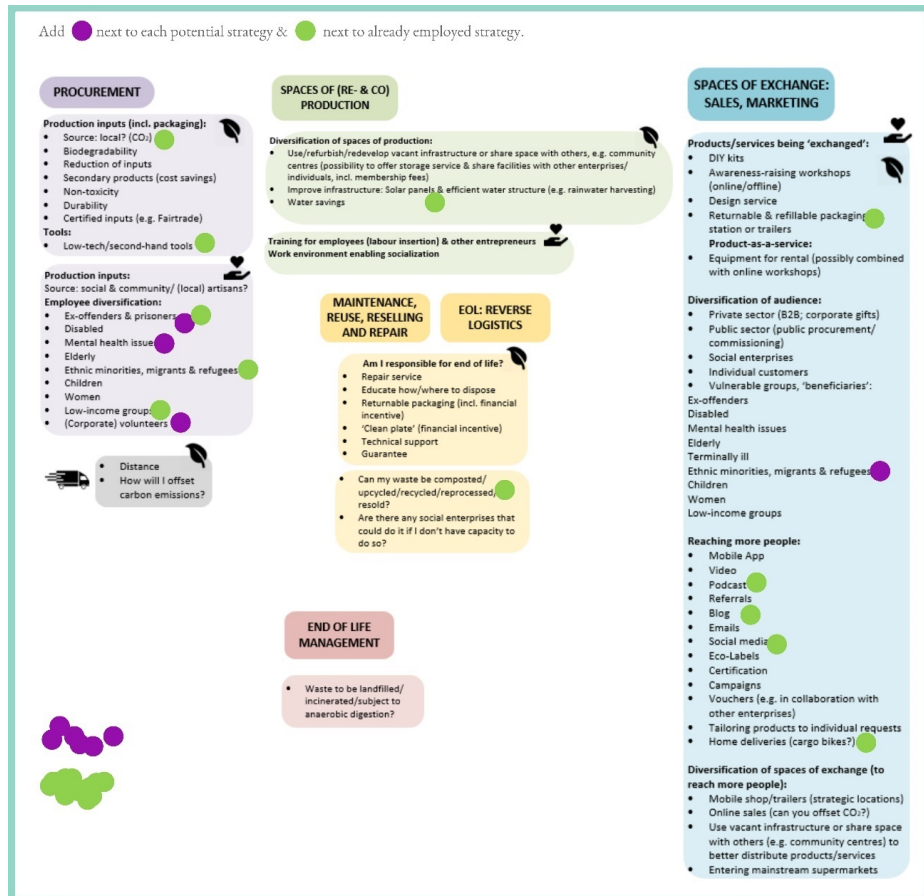
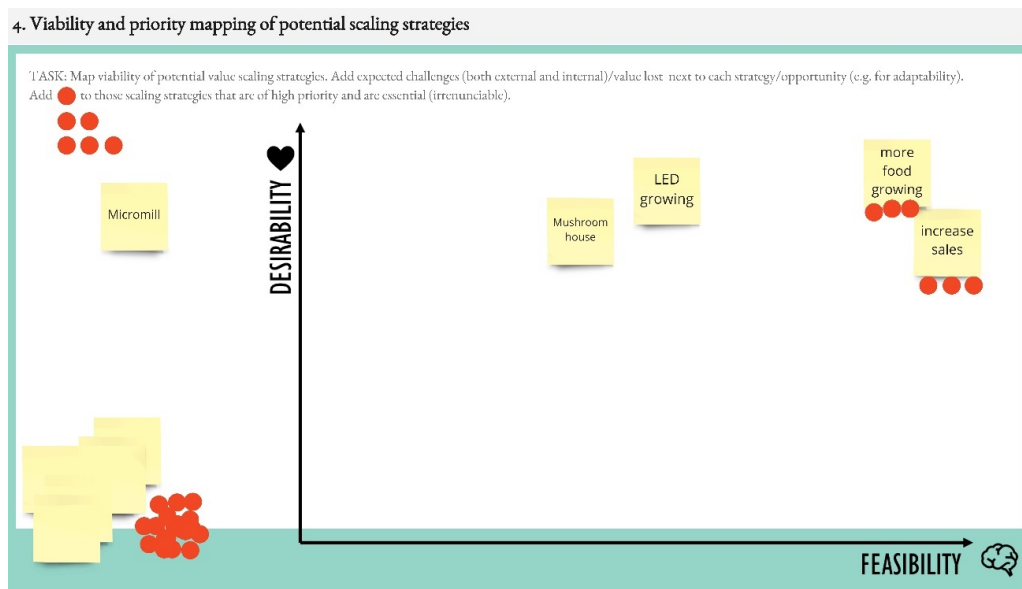


Figure 4.12 - List of scaling pathways associated with respective economic spaces.

Note: See Appendix 7 for higher resolution. Table F in Appendix 8 contains an extended version of scaling pathways.

Using virtual sticky notes, entrepreneurs were then asked to place the chosen scaling strategies on canvas helping to assess desirability in the context of viability of pursuing respective scaling pathways. They were also asked to add one, two or three 'sticky dots' to those scaling strategies that are of higher priority (three dots indicate the highest priority) (see Figure 4.13 below).



**Figure 4.13 - Mapping viability vs. desirability of pursuing respective scaling pathways and prioritizing thereof**

Note: Results stem from the mapping session incorporating Miro Boards with three representatives of Rooted in Hull (May 2021); see Appendix 7 and Canvas G in Appendix 8 for higher resolution.

Overall, data collected during this workshop enriched the discussion of research findings (Chapter 5, 6 and 7). The activities examined during the virtual workshop underpin the design of the ISCIRVIS Toolkit whose components constitute an extended version of this workshop so that future users find it more useful (see 8.3 and Appendix 8).

#### 4.5 Positionality and Ethics

Positionality is an integral part of the qualitative research and *“reflects the position that the researcher has chosen to adopt within a given research study”* (Savin-Baden & Major, 2013:1). In this research, interviews, mapping sessions and even video-making enabled the researcher to position herself as someone more than just working towards a PhD degree but as someone proactively engaged in promoting the local development of the CE especially in Hull but also other cities. Crucially, the wider Cresting project was designed to guide progress and inform policymakers, thereby providing an opportunity for the researcher to collaborate with a range of organizations (potentially) involved in the development of the CE. As such, the researcher used the interviews and mapping sessions to enable SEs in the three localities to better understand and potentially exploit new social, environmental and economic opportunities surrounding the CE. The researcher intended to contribute to the local circulation of information and knowledge across the SE networks uncovered and examined in the study, and hence acted as a broker (cf. 6.5). In any case, the interviewing/data collection process at large was reflexive in that the researcher was examining both herself (as a self-aware researcher)

and the research relationship (cf. Holmes, 2020). More importantly, without reflexivity, which informs positionality, the research could not be conducted ethically.

Further referring to ethics, the requisite institutional ethics and risk assessment approvals for the adopted research methods were obtained prior to undertaking the research from the Ethics Committee in the Faculty of Science and Engineering at the University of Hull. Given that the well-being of research participants is paramount to the researcher, the researcher ensured that participants' health, dignity, rights, safety and well-being are respected and safeguarded. This was even more important given that some of the SEs involved in the study provide services to vulnerable communities and individuals that experience problems such as socio-economical marginalization, food poverty, and poor mental health (Bracken-Roche et al., 2017). Linked to this, research participants were provided with a brief description of the project prior to any formal data collection. All the research participants were provided with the consent form (see Appendix 1), which was issued by the Ethics Committee at the Faculty and confirmed researcher's compliance with the set of rules on research and integrity. By signing this form, participants gave consent to be interviewed and recorded, whilst being free to respond to questions on a voluntary basis, maintaining anonymity where necessary, and able to withdraw from the interview at any time. All meetings and interviews were conducted in properly supervised environments (e.g., SEs premises) with full cooperation of research subjects, unless they were conducted online due to COVID-19. Visual documentation (including photos and videos) likewise took place only after seeking informed consent of participants, which included explanation of the use of visual records.

The necessary data were collected without using personally identifying information. All the data were safely stored in Box drive and were available only to the researcher. The collected data were not transmitted electronically apart from safely transferring interviews to the transcribing company, which is a trusted supplier of the University of Hull. In order to make sure that the researcher conformed to the rules at partner organisation – EMS – the researcher underwent a formal induction process, which involved giving written consent to conform to the Code of Conduct & Disciplinary Procedure and Health & Safety Employee Handbook in February 2019. Overall, extra care was adopted to ensure that interests of all the research participants were protected.

#### **4.6 Conclusion and Limitations**

Consistent with an overarching critical realist approach to the research (Sayer, 1984), triangulation of research methods enabled the researcher to identify causal mechanisms, key resources, actors, phenomena and contingent conditions surrounding the local development

of the CE in particular spatial settings. In addition to facilitating ground truthing, the employed multi-method approach to research enabled to examine possible ways to create an enabling environment for expansion, diversification and/or adoption of social circular innovations by SEs and within a given context. Community assets mapping combined with SNA additionally enriched the scarce scholarly literature on collaborative mapping of alternative economic spaces (Labaeye, 2017).

By way of conclusion, I will now highlight some of the limitations associated with employed research methods, and which have repercussions for the quantity and quality of data, and hence the accuracy of research findings. First, depending on the position of an interviewee in each organization (e.g., the head of a national franchise or a manager of a SE belonging to a national chain), there can be observed disparities in knowledge and views among different interviewees (e.g., regarding bottom-up/top-down perspectives). Data disparities with regards to each SE were also introduced by the facts that many interviewees were facing busy work schedules (and this sometimes resulted in reduced length and content of interviews), and that most of the interviews were conducted only with one representative of a SE (only occasionally one or two other employees were present). Moreover, some of the respondents' answers such as those related to trust in other organizations are likely to be highly subjective. Some SE managers were also unwilling to share all the names of their connections due to confidentiality reasons. Nonetheless, the fact that some private companies wished not to have their names disclosed by SEs, or SEs did not want to disclose the names of their clients (i.e., suppliers of secondary resources for recycling, be it social or private), is a research finding in itself. It has been found that larger organizations tend to treat their connections and, more specifically, customers (who may be in a way 'suppliers' of their production inputs such as recyclable paper, cardboard and plastic) as a valuable asset, which took a lot of time to build and should thereby remain anonymous due to competitive pressures. On the other hand, small, sole traders appeared to be quite transparent as they are open to new connections in order to further develop their business models. Such limitations had implications on SNA, and more specifically on the quality/content of the *SE ecosystem map*. This is even more relevant given that SNA is very data-intensive and employs quantitative measures that may not adequately portray the reality. SEs under study may additionally have many informal connections that are underpinned by non-economic motives and could not be entirely mapped due to the above-mentioned issues with interviewing, lack of data and loose character of connections. The limited data also allows to assume that anonymous organizations may be, in fact, connected to other anonymous organizations in the network. Linked to the above challenges, aspects such as the actual network size, density, structural holes, connectivity and variegated levels of

frequency and reciprocity (cf. 3.3.6.3) were likewise not always accounted for in their entirety despite access to some complementary data from secondary resources.

Given that 38 SEs out of approximately 74 contacted SEs expressed willingness to participate in the study, the generated network is not entirely representative of the entire social (circular) enterprise ecosystem in Hull and it, instead, only provides a snapshot of it in a given spatial-temporal context (Chapter 6). Some of the non-participating enterprises did, however, occur in the presented network visualization as connected to SEs that participated in the study. The information provided on these enterprises was thus obtained indirectly from third parties. Moreover, some of the SEs that also act as support infrastructure organizations were not always mapped in terms of their ego-networks, and the total of 31 ego-networks were mapped to the researcher's fullest capacity. Given that the interviews were usually conducted with only one representative of a given enterprise, the network visualization additionally does not encompass potential interactions of other staff members/founders with other organizations. It thus does not recognize potential of 'double ties', which may be stronger and occur when two founders have close ties to the particular enterprise. In using 'organization' as a unit of analysis, the research also does not account for individuals and community groups that may be suppliers and/or recipients of particular resources (hence potentially enlarging the mapped network). This is where community assets mapping in East Hull provided some background information from the bottom-up.

As SNA is data-intensive, the lack of data over a specific period of time additionally implies that the generated maps of ties do not reveal how size and shape of networks, which are dynamic and constantly changing, have been evolving over time. Some of the mapped ties are thus rather temporary (though they may occur periodically over an extended period of time), especially when it comes to funding bodies. In any case, although such ties are to some extent incoherent, they show the broader picture and delineate key patterns. Besides, while the most important collaborations were presumably identified by the interviewees, it cannot be omitted that some of the weaker, unidentified ties could, in fact, lead to CE innovations and diffusion of CE thinking across the network. As far as past connections are concerned, such information is especially difficult to retrieve from 'mental archives' of research participants (Walsh & Ungson, 1991), some of whom did not necessarily work for a given SE since its conception. Lastly, another issue associated with SNA concerns legacy meaning that the co-created social network map requires maintenance and updates to render further benefits in the future.



*i. Impact of COVID-19*

The global situation associated with the outbreak of COVID-19 has, to some extent, impacted the research in that the researcher conducted 30 out of 58 interviews online via Zoom or Microsoft Teams. First and foremost, interviewees very often showed lower engagement at virtual encounters when compared to face-to-face interviews. Virtual interviews were also not very interactive (with the exception of the virtual workshop – 4.4.7) in that participants were not mapping flows of values and resources between respective stakeholders on paper canvases. Online interviewing can be thus associated with diminished quality and quantity of data, and thereby potentially insufficient ‘theoretical saturation’ (Strauss, 1987). Upon returning from her stay in Chile, which was significantly shortened due to the outbreak of COVID-19, the researcher could not reach and conduct online interviews with some enterprises with which an in-person meeting had been pre-arranged. In a similar fashion, the researcher could not conduct community assets mapping with one community in Chile – an activity that could have enabled her to corroborate findings from community assets mapping in Hull. In any case, community assets mapping in Hull was rather limited in that the researcher struggled to reach many residents due to COVID restrictions. Moreover, the researcher intended to run with two other Cresting researchers from Hull an in-person multi-stakeholder workshop with entrepreneurs, representatives of private companies and authorities from Hull City Council, yet the workshop did not take place due to COVID-19. A virtual networking workshop, which invited LEPs and local authorities to draft a CE framework strategy for the region, took place during the Circular Yorkshire Week in November 2021 but it was unfortunately characterized by a relatively low attendance (see the video-clip featuring the event: York & North Yorkshire LEP, 2021). The researcher also intended to take more videoclips featuring entrepreneurs and SEs, but this process was likewise impeded due to restrictions imposed by COVID-19.

## Chapter 5 – Diverse Circular Economies: Untangling Circuits of Value in the Social Enterprise-led Local Development of the Circular Economy<sup>22</sup>

### 5.1 Introduction

This chapter considers how research on the local development of the CE can benefit from conceptual insights from the economic geography literature on diverse economies (Gibson-Graham, 2006) and their constituent circuits of value (Lee, 2004). In doing so, it proposes a novel heuristic framework for analysing socio-material configurations and associated flows of value, which underlie, and could be restructured to facilitate, local and socially inclusive development of the CE across diverse sectors. This framework is developed and applied in the context of cross-sector case studies featuring SEs in Hull (UK), Santiago (Chile) and Graz (Austria), and which are broadly engaged in CE activities across everyday life sectors (e.g., food, wood/furniture/interior design, hygiene, textile sector). Crucially, SEs are framed as entities entangled in a complex web of interconnected social, spatial-temporal and material circuits and relations that occur across sectors and their constituent mainstream (formal/regulated) and alternative (informal/unregulated) economic spaces of production, exchange, and consumption. This is because SEs participate in both monetary and non-monetary, capitalist and non-capitalist transactions that underpin cross-sector value co-production and circulation, as well as enable the development of innovative (albeit not exclusively mainstream) ways of (co)producing, consuming, (re)distributing and exchanging (raw) materials, goods and services, which have potential to be within Earth's limits.

In aligning the CE concept with circuits of value, this chapter further shows the importance of mapping and conceptualizing intertwined flows of capital, resources, people and related values, as well as feedback loops associated with the local development of the CE in a given spatial-temporal context. The proposed framework represents flows of value as ingrained not only into the broader (global) economic system in which SEs are embedded (cf. Granovetter, 1985), but also the wider ecological and institutional contexts, which have implications for how CE practices blur taken-for-granted conceptual boundaries between the mainstream and alternative economic realms, and between the local and the global. In their everyday transactions, SEs exemplify the potential to represent a new arena of alternative local development praxis within the CE.

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<sup>22</sup> Parts of this chapter were published in *Economic Geography*: Lekan et al. (2021a).

The chapter is organized as follows: first, it examines material circuits of value, highlighting the interplay between upper and lower circuits of value in the context of case study SEs (5.2). In so doing, it investigates material flows of resources and labour across mainstream and alternative economic spaces, which are common to their respective sectors irrespective of spatial context (in this case, the three national settings examined). The next sub-section (5.3) examines some extra-economic aspects of circuits of value in the CE by interrogating how such cross-realm feedback loops raise a range of environmental considerations (5.3.1), social-ethical considerations including labour conditions (5.3.2.1), gender (5.3.2.2) and B2B transactions (5.3.2.3). Sub-section 5.4 then explores the role of underlying public, private and social institutional policies, regulations and norms in shaping (and being shaped by) respective circuits of value in the CE. Upon presenting SEs as entangled in the broader circuits of value and capital, it concludes with a robust typology of SEs, which is built around the research findings and reveals the diversity of social-circular enterprise forms (5.5).

## 5.2 Material Flows: The Interplay of Upper and Lower Circuits of Value and the CE

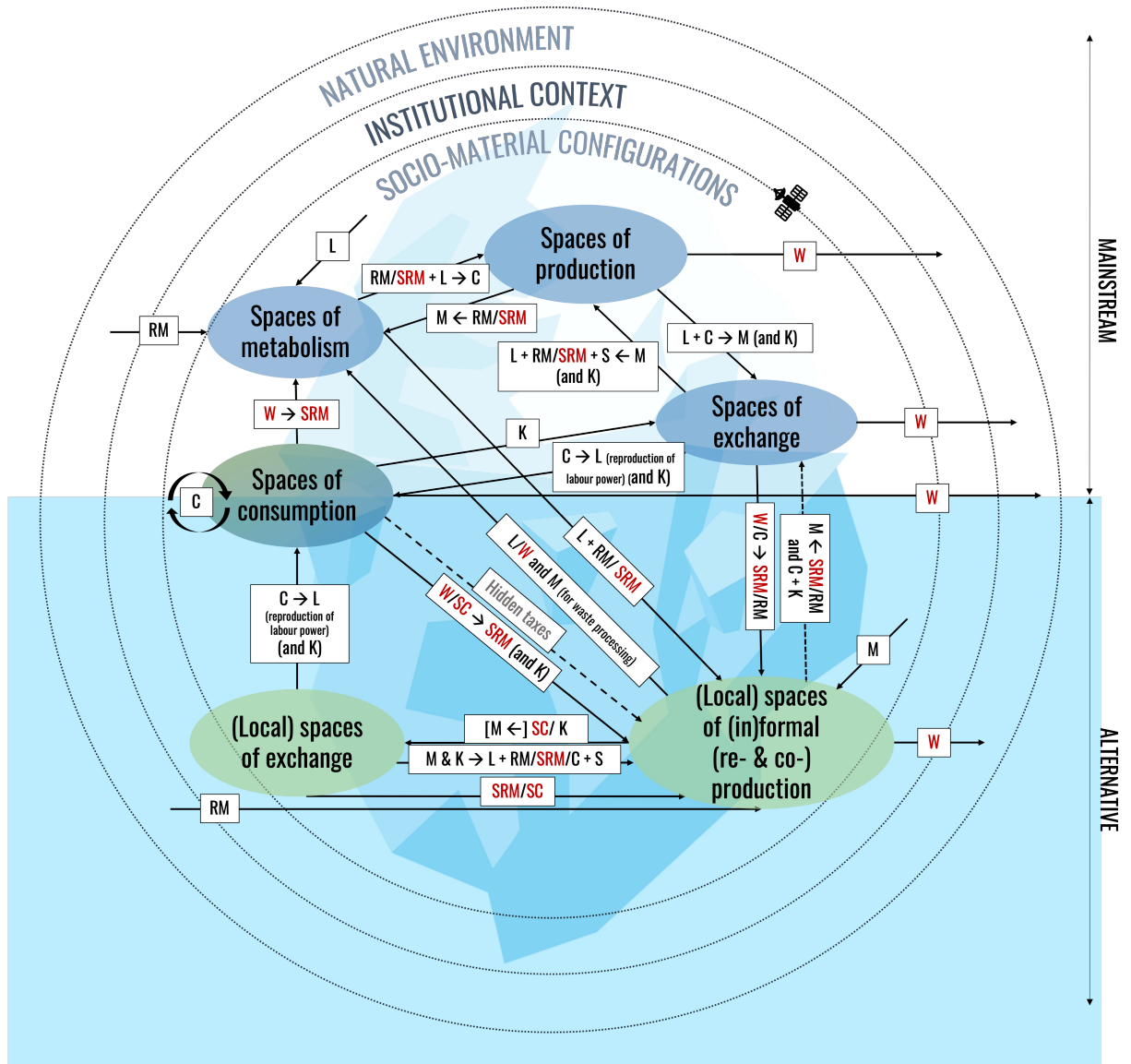
Following the literature review chapter, it is important to map circuits of value surrounding the local development of the CE. The concept of circuits of value refers to material and social pathways around which values attached to a given resource circulate are co-produced, transformed/exchanged and consumed (Lee, 2006). These circuits are being constantly reconfigured by social relations and embed multiple, diverse conceptions of value that may include both capitalist and non-capitalist values. Drawing upon research findings from resource mapping and interviews, I will now focus on material flows understood as flows of resources, labour, knowledge and capital, which together comprise emergent circuits of value in the CE. This includes highlighting some of the production inputs/outputs entering or leaving respective economic units. The analysis precedes discussion on extra-economic dimensions associated with circuits of value (5.3) and the broader institutional context in which those circuits are embedded (5.4).

Prior to focusing on respective resource flows, I will now present the heuristic framework deployed to investigate tangible and intangible resource flows across the mainstream and alternative economic spaces of exchange, production and consumption (see Figure 5.1 below<sup>23</sup>). More specifically, the presented framework represents value flows occurring across ever-evolving temporalities and spatialities, thereby capturing the '*socio-spatial anatomy*' of

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<sup>23</sup> The presented framework is an extension of another heuristic framework - Figure 2.3.

economic processes (Hudson, 2005, p.143). Positioned in the lower part of the economic iceberg model, SEs form *lower circuits of value* that interact with, and are shaped by, the *upper circuits of capital* (Santos, 1977).



**Figure 5.1 - Heuristic framework for mapping circuits of value in the social enterprise-led local development of the circular economy**

Note: Author's design after Lee (2013) and Community Economies Collective (2021)

**Legend:**

**SRM** - secondary raw material (upon being revalorized)

**RM** - raw material

**W** - waste including surplus (unsold) materials (that may be subject to revalorization)

**C** - commodity (product of use value for sale that may contain upcycled materials)

**SC** - secondary commodity

**L** – labour

**M** – money

**[M]** - optional monetary transaction

**S** – space (fixed capital such as built environment; related to maintenance costs)

**K** – knowledge

### 5.2.1 Flows of (Raw) Materials

Figure 5.1 illustrates that once the means of production, namely, extracted raw materials (be it virgin – ‘RM’, or secondary that already underwent several production cycles – ‘SRM’) and labour (associated time and power), are appropriated and exchanged for monetary value, stocks of natural capital are then transformed through the use of stocks of human capital (i.e., labour power) into commodities (outputs) in spaces of *formal production of use value*. Examples of such raw materials may involve soil and seeds (for growing crops); trees (for pellets/furniture); gas, oil and plants (for plastic); sand, soda ash and limestone (for glass); or cotton (for textiles), to name a few. ‘SRM’ may be also understood in terms of energy inputs from anaerobic plants (see ‘Spaces of metabolism’) where organic ‘waste’ from another production-exchange-consumption cycle was transformed into energy.

Any (un)sold/(un)exchanged commodities (i.e., ‘W’ understood as a ‘surplus’) in extra-local *spaces of exchange of use value* may be then transferred to *local spaces of (re- & and co-)production* operated by SEs<sup>24</sup>. In such spaces the received inputs are locally (re- and co-)produced, and hence (re)valorised (see ‘W→SRM’). SEs may also receive secondary resources that have already undergone several production and consumption cycles - ‘SC’ - from *spaces of productive consumption* (that may be classified as either alternative or mainstream), and *alternative (local) spaces of exchange* (other SEs). Stated differently, these secondary materials used by SEs have already circulated through Global Production Networks (GPNs), which occupy transnational space and constitute “*the nexus of interconnected*

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<sup>24</sup> Such spaces may also concern households in case entrepreneurs are only associated with SEs in order to sell their products and knowledge (the latter in the form of educational workshops).

*functions, operations and transactions through which a specific product or service is produced, distributed and consumed*" (Coe et al., 2008:272). Such inputs thus incorporate already-embedded complex social and material values and social relations that went into their production and distribution network, many of which are difficult to trace. While some of these materials may be transferred to SEs via monetary and non-monetary transactions (donations) to serve as production inputs, some companies may send to SEs unwanted goods based upon the premise that the provided materials will be converted on a business-to-business (B2B) basis (e.g., into corporate gifts).

It is also worth noting that material circulation is increasingly enabled and accelerated by digital technologies. That is, many SEs engaged in the CE increasingly rely upon (either exclusively or non-exclusively), and are being enabled by, digital (mobile) applications and digital social platforms. In fact, all the case studies employed in this research have embraced, to varying degrees, digitalization as a means of operating their business models. This includes using digital technologies as a means for collaboration, networking, education (including knowledge-sharing/open source) and social innovations understood as novel ways of interacting and linking diverse actors to meet social goals. Technologies thus have significant impact on the performance of SEs and pursuance of CE practices, and, assuming that digital technologies are inherently part of the mainstream economy, they reveal how reliance on digital platforms further blurs boundaries between mainstream and alternative economic spaces.

I will now turn to the mapping analysis of resource flows across the case study SEs by sector.

### *Food*

In reference to the food sector, EMS – a SE located in East Hull that rescues food surplus from large retailers – exemplifies how unsold food surplus is being transferred from the mainstream spaces of exchange (i.e., large retailers) to spaces of (re-)production of use value (e.g., community kitchens operated by SEs) and/or consumption of use value (e.g., households upon collecting food from SEs). Such recirculation of food surplus from households or large retailers may be digitally-enabled and accelerated. For example, funded by Cranswick plc (a leading UK food producer and supplier of pork meat) - OLIO App is a neighbour-to-neighbour digital food sharing app, which enables sharing and (re)distribution of unwanted/spare food items within Hull communities. In this way, the app enables the bridging of what Ciulli et al. (2020) called 'circularity holes', i.e., gaps between waste generators and potential receivers. Interestingly, through partnership with FareShare Hull & Humber (another SE redistributing food surplus across the country), OLIO Hull ran a 5 month campaign in order to encourage local users to

share not only food but also household items with fellow local users, yet, OLIO Hull pledged to donate the costs of every item shared to FareShare Hull & Humber, thus indirectly helping those in most need (Bilson, 2020). Despite the campaign, the majority of the food comes from local businesses through the 'Food Waste Heroes' scheme whereby volunteers collect food surplus from large retailers. This shows how large private companies work alongside alternative initiatives in order to enhance their corporate image (see 5.3.2.3 on B2B transactions).

#### *Wood*

Several SEs source wood in the form of wooden pallets or furniture in order to upcycle it into new items. Wood may be donated by individuals or captured from demolition or construction sites via informal agreements with the private sector (e.g., Don Pallets, HWR). Some of the discarded furniture may be also captured from the local authority owned Humberfield Household Waste Recycling Centre through contracts with local authorities. Some of the wooden pallets may be additionally redirected to Hull Prison where they are being reprocessed (free of charge) into planters for SEs offering gardening sessions (e.g., EMS). Interestingly, some of the captured pallets of high quality may be sold without being reprocessed, thus enabling SEs to generate extra income. Some of the donated wooden leftovers may be also freely given by SEs to individuals as firewood: *"We have a freecycle thing where we offer free firewood in exchange for packets of biscuits in, but they don't have to"* (Representative of HWR, July 2020). Interestingly, as opposed to Rincón del Pallet from Santiago, Recycling Unlimited and HWR in Hull, Don Pallets (Santiago) is occasionally willing to incur fees for high quality secondary pallets instead of relying on donations only.

#### *Textiles*

Some SEs use reclaimed wood obtained through individual/business donations (including textiles from funeral services) or leftovers from production processes as production inputs. Interestingly, the case of ROPO Design illustrates that some factories charge for giving away their material scraps. This may be due to the fact that SEs, such as ROPO Design which is a sole-trader, are too small for large companies to be potentially interested in using them to boost their corporate image through donations (see 5.3.2.3i). Any unsold textiles may be then sold to rag merchants on a B2B basis depending on the revenue and to lower waste disposal fees. The representative of Dove House noted that around 60% of received items are recycled via rag merchants and only approximately 40% are saleable (Interview, August 2020). Some of the unsold items may be also upcycled by the same SEs (e.g., Winner Ltd.), sold or freely given to other charities/SEs, the last option often occurring in case charities belong to the same national or regional chain (e.g., Sue Ryder) unless they know owners very well or need textiles

for specific projects (e.g., Life and Loom uses rags from charity shops for upcycling and Ecocitex converts 1 ton of donated textiles into new material - upcycled textile yarn - on a weekly basis). Some SEs may also exchange items. For example, Enviromail gives away clothes found during the sorting process to charities in exchange for cardboard waste, which is then integrated into the global paper supply chain. It is, however, difficult to estimate which SE benefits more from such non-monetary transaction. Crucially, many textile items circulate in charity shops, and hence *lower circuits of value*, several times as customers may purchase and return items.

There is wide a range of other material flows that go beyond food, wood and textile sectors, an example being plastic bottle cups in case of Plastic LUP, which tries to increase the value of plastic material by working with artisan communities who produce baskets by weaving plastic fibres with natural fibres. Final products may be then sold in large mainstream supermarkets and online. SEs such as Scrapstore Hull also receive paper from the local paper manufacturer, which is then sold to Makerspace Hull. An overview of other materials going into (co-)production processes can be found in subsection 5.2.6. While this section focused on material inputs for production, it is also worth noting that tools needed for the production may likewise conform to some of the CE principles. For example, some SEs tend to use donated second-hand sewing machines or borrow necessary (and often second-hand) equipment from support infrastructure organizations such as Library of Stuff and The Vault. Interestingly, SEs such as Makerspace Hull also managed to source 3D printers from the local 3D printing company (NFire).

## 5.2.2 Flows of People

Figure 5.1 showcases flows of labour (L) across respective economic units. For example, job centres can be referred to as *spaces of metabolism* where labour power is 'procured' in order to 'serve' in 'spaces of production' (both mainstream and alternative) by transforming production inputs into production outputs (i.e., goods and services). Any generated income from sales of products is then transformed into remuneration/wages for employees – 'L+RM/SRM + S <-- M (and K)' - from spaces of exchange to spaces of production) or reinvested into social mission (e.g., in the case where prisoners upcycle furniture for a local charity, see Dove House Hospice & HWR, Appendix 3). Moreover, spaces of consumption can be referred to as spaces where labour/social reproduction takes place (Jonas, 2010; cf. 5.3.2.1). Any extra-economic, ethical issues associated with labour reproduction such as those involving consumption of food surplus from large retailers by employees on a basic income level, are discussed in 5.3.2.



Some SEs also engage in partnerships with private companies as a way of enabling corporate volunteerism, which helps to generate more localized benefits in the UK (e.g., Hull Library of Stuff had their analytical data corrected by corporate volunteers). In return, private companies can boost their CSR, enhance work motivation and improve work performance among their employees (cf. Austin & Seitanidi, 2012b). Nonetheless, volunteers usually require a lot of coordination efforts and supervision. Given that providing such extra managerial structures is not always possible due to limited financial capacities of SEs, it is very important to hire people who possess relevant knowledge/expertise as this may have implications on the expansion of circuits of value over extended periods of time. For example, the representative of The Vault noted that the caretaker of their library of things is a highly respected ex-army officer who has a lot of experience in repairing things and teaches borrowers how to look after equipment. By sharing best practice and commanding respect, ownership and responsibility amongst those who borrow it, The Vault can ensure that its goods can be reused/serve the community over multiple cycles.

### 5.2.3 Flows of (In)formal Knowledge and Support

Figure 5.1 highlights potential flows of knowledge (K) across respective economic units. For example, customers may provide feedback to producers in spaces of production who may, in turn, provide customers with knowledge regarding how their commodities were made, what materials they were made of and/or how to fix/dispose them. Spaces of (local) production are also spaces of knowledge (co-)production in the sense that not only new production techniques can be developed but also knowledge can be passed on to/exchanged with others in the same spaces of production, spaces of exchange or spaces of consumption (e.g., through educational workshops in SEs' premises). Such workshops may involve monetary transactions in case workshop facilitators choose to monetize on them – see ' $M \leftarrow SC/K$ ' between (Local) spaces of (in)formal (re-&co-)production and (Local) spaces of exchange). In this case, knowledge may be classified as a commodity (cf. Hall, 1979), an example being Down to Earth delivering educational workshops to local schools. In addition to incorporating embodied knowledge, which is present among community members/customers, knowledge transactions may also involve inflows of formal/academic knowledge. For example, several SEs closely work with universities that provide them with necessary knowledge sources. Both types of knowledge transactions can help to better uncover, through the CE lens, contradictions within the mainstream representations of economic activities and conceptions (cf. Gibson-Graham, 2006).

Flows of knowledge are thus inextricably linked to flows of people who may possess necessary knowledge on relevant CE aspects. Linked to the previous subsection, the findings reveal that what many circular SEs lack are strategic management and marketing skills necessary to successfully manage ventures. In a similar fashion, the representative of The HEY Smile Foundation noted that the City of Hull faces the issue of not maximizing the use of local talents in the City:

*"I think we are not very good at embracing social enterprising across Hull and East Yorkshire. For example, you have got a lot of talent in the building – people who work remotely for global companies like Google or banks. But how do we recognize that local talent to help local infrastructure and build up our own economy? How is it that a local economy is always being sieved out elsewhere?"*

(Interview, September 2020).

Linked to this, the representative of Probe noted that the SE is planning to make efforts to get in touch with private companies to boost the knowledge of its team leaders through skill sharing programmes (Interview, March 2021). Overall, while it can be noted that many large private companies source many employees from outside the city and corporate workers can support SEs through corporate volunteerism, there is a potential to promote programmes that could incentivize the development of local ventures and repurpose skills of corporate employees to help SEs, thus making most out of the local talent. Moreover, time credits earned from TimeBank Hull & East Riding could potentially enable its members to access a pool of expertise/skills from other members (e.g., branding, bookkeeping or general business advice). Nonetheless, while the SE plays an important role in uncovering underutilized skills among urban residents, the scheme is instead oriented at low skills.

Flows of knowledge understood as flows of advice to vulnerable groups of people can be also reflected within 'alternative' spaces of exchange. For example, Hull Foodbank offers a lot of support to its beneficiaries, usually by referring them to other SEs. As the representative of Hull Foodbank noted:

*"The chat we have with the person is nearly as important as food. Often, you might be the first person in a week who has asked 'how you are doing?' So most weeks there will be tears and also people stressed if someone hasn't eaten for two days. So we have basically a signposting file so we that can look up what their issue is and all the other organisations that deal with them."*

(Interview, September 2020).

Combined with flows of raw materials understood as food surplus/donations, such SEs hence provide disadvantaged individuals with *"a bit of breathing space so that they can sort*

*something out*" whilst ensuring, through extensive lobbying, that people do not rely on food aid indefinitely (Representative of Hull Foodbank, Interview in September 2020). In a similar fashion, the CEO of Eternal Benefits noted that:

*"If you think of people as well, we can be broken. And sometimes we need to find a repurposing of our lives. So, we think of individual and also furniture and the whole community trying to pull together, work together and bring good out of everything."*

(Interview, July 2020).

Other SEs such as Makerspace Hull address skill shortages among disadvantaged youth and intend to inspire them to go into things like engineering and creative arts through externally funded sessions. Plastic LUP, on the other hand, trains artisan communities to boost their autonomy whilst using CE as a tool to strengthen the creative industry in Chile.

#### 5.2.4 Flows of Financial Capital

Flows of financial capital underpin many transactions surrounding flows of materials, people and knowledge. Depending on the nature of transactions, and hence variegated sources of income, the constituent circuits of capital reflect how SEs, which can be metaphorically framed as mini cogs of circuits of value, operate within the larger cogs of expansionary circuits of capital that span local, regional and national territories. For example, Figure 5.1 illustrates how SEs may ethically reinvest any profits from local/overseas sales into their social and environmental mission, hence keeping them within localized circuits of value and creating a local multiplier effect – see 'M&K → L+RM/SRM/C + S' from (local) spaces of exchange to (local) spaces of (in)formal (re-&co-) production in Figure 5.1. This is less so in case SEs belong to the broader national chain whereby funds (aka localized capitals) circulate across the country (cf. Sue Ryder; Age UK). SEs such as Unity in Community, on the other hand, offer services within the city boundaries, yet invest generated income in communities in particular neighbourhoods. Crucially, there may remain 'leakages' into the 'mainstream' in the form of taxes or occasional purchases of raw material inputs (see 'RM' in Figure 5.1).

Any (un)sold commodities (i.e., 'W' understood as a 'surplus') in extra-local *spaces of exchange* where private companies and individual customers execute monetary and digitally-mediated transactions with large retailers, may be also transferred on voluntary or monetary basis to SEs' *local spaces of (re- & and co-)production*. SEs may also receive secondary resources (that have already undergone several production and consumption cycles) - 'SC' - from *spaces of productive consumption* (that may be classified as either alternative or mainstream), and *alternative (local) spaces of exchange* (other SEs). While some of these materials may be

transferred to SEs via monetary and non-monetary transactions (donations) to serve as production inputs, some companies may send to SEs unwanted goods based on the premise that the provided materials will be converted on a (monetary) B2B basis into corporate gifts. Besides, the fact that the vast majority of sales (or leasing) is underpinned by digital transactions, only further denotes interactions of local circuits of value with mainstream global financial institutions via upper circuits of capital, and hence SEs' subordination to the 'laws of the market' (e.g., fluctuating prices). This is especially the case of overseas sales, sales in large supermarkets that belong to large international chains (while such sales entail lower product prices, those products can be sold in larger quantities), and those B2B transactions that involve money transfers.

Figure 5.1 also highlights monetary inflows from external bodies, e.g., public funding institutions or private companies via corporate sponsorship and fundraising (see arrow with 'M' to (Local) spaces of (in)formal (re- & co-) production). For example, Community RePaint receives corporate sponsorship from a large company producing architectural paint as part of the latter's efforts to promote product stewardship. While this exemplifies a form of an extended producer responsibility (EPR) (cf. 2.4), the funds are obtained only by the central organization that uses them to help its franchises (e.g., Community RePaint Hull & Humber) improve their publicity. Community RePaint shops can, however, obtain funds from private companies by charging them for collecting and receiving their paint<sup>25</sup>. Interestingly, one SE - Dove House Hospice - generates income from running activities such as lotteries, which enable it to generate income outside its catchment area. In enabling organizations from all over the country to join the lottery whilst forging mutually beneficial cross-sectoral partnerships with a number of enterprises, Dove House Hospice has expanded its circuits of capital nation-wide. Nonetheless, several SEs do not have enough capacity to meet the requirements of funders who may expect a specific provision in return. For example, the representative of Recycling Unlimited noted that:

*"We tried to get corporate funding, but they wanted more than they are going to give us. If they were going to give us five or ten thousand pounds, they would expect us to deliver mental health first-aid courses [for those private companies]"*

(Interview, July 2020).

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<sup>25</sup> Nonetheless, many of such shops do not have enough capacity to handle large volumes of paint as they struggle to boost demand for it. Funds obtained for publicity are hence insufficient.

When it comes to public funds, which may originate in global markets, some SEs are against them in efforts to maintain financial autonomy. For example, the CEO of Don Pallet noted that:

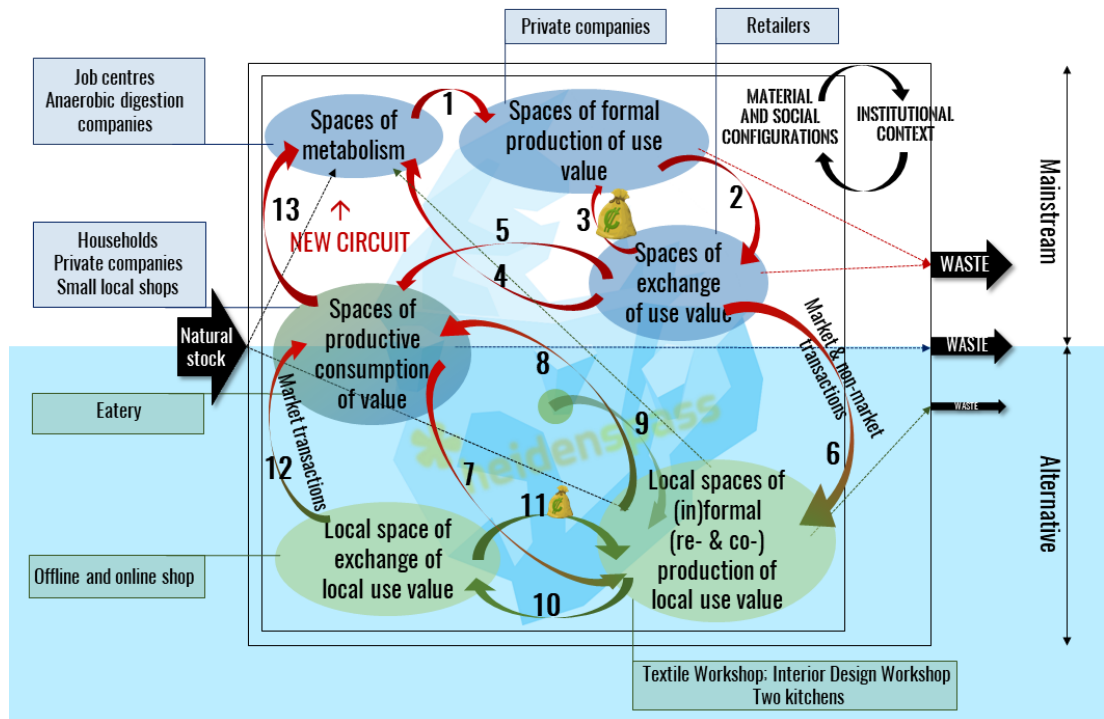
*“Governmental funds are like a respiratory machine, which does not teach you how to breathe. When you are off it, you cannot protect yourself”*

(Interview, March 2020).

On the other hand, the CEO of another SE upcycling wood – Rincón del Pallet – is interested in public funds to generate more social impacts before becoming more financially autonomous. Crucially, circuits of capital may be shaped by brokers such as The HEY Smile Foundation, which helps to link SEs with relevant funding bodies. More information regarding public funding can be found in 6.3.2 (Chapter 6).

### 5.2.5 Circuits of Value: The Case of *heidenspass*

This subsection draws together insights from the above analysis of circuits of value and presents them in the context of a case study of *heidenspass*, a SE based in Graz, Austria, which embodies mixed flows of food, wood and textiles (among other resources). *Heidenspass* is formally delivered by Verein Fensterplatz - an association founded in 2006 in Graz to offer employment opportunities to unemployed youth. Figure 5.2 uses the findings from a detailed case study of *heidenspass* to develop a general framework for mapping circuits of value across diverse SE sectors.




















**Figure 5.2 - Framework for mapping circuits of value in the social enterprise-led local development of the circular economy: the case of Verein Fensterplatz-Projekt *heidenspass***







































Author's design after Lee (2013) and Community Economies Collective (2021);  
Published in: Lekan et al. (2021a).

In the case of *heidenspass*, the SE collects unsold food surplus from a large food retailer, which is then transformed into meals in local spaces of (re- & and co-)production of use value for consumption by *heidenspass* staff and customers at *heidenspass* eatery (see space of productive consumption of value and circuit 8). The enterprise also receives secondary resources that have already undergone several production and consumption cycles (circuit 7). They may concern second-hand truck canvas from transportation companies, punctured tyres from bicycle retailers or second-hand furniture from individual donors and charity shops (circuit 9), all of which are being (re- & co-re and co) produced into aesthetic goods by *heidenspass* employees. While some of these items may be transferred to *heidenspass* via non-monetary transactions (donations) to serve as production inputs, several large private companies send to *heidenspass* unwanted goods based on the premise that the provided materials will be converted on a business-to-business (B2B) basis into corporate gifts (circuit 8). For example, one well-known corporation sent *heidenspass* worn-out jackets and money in exchange for bags for its staff. In this way, *heidenspass*'s work activities revalorize 'waste' and prevent it from being landfilled, incinerated, recycled via global production networks, or in cases of food waste - from being subject to anaerobic digestion, which also generates troublesome waste (circuit 13).












Table 5.1 below brings together some of the key results of analysis of circuits of value associated with *heidenspass*, and represents (use) value captured, lost, or potentially captured in relation to respective economic units. The results stem from the mapping sessions that incorporated Value Mapping Tool (see 4.4.2ii).

**Table 5.1 - Diverse multi-stakeholder value outcomes across spaces of value creation, capture and loss associated with *heidenspass***

Economic unit	Use value captured	Use value lost	Use value opportunity
Spaces of formal production	<p><b><u>ECONOMIC</u></b></p> <p> Financial capital accumulation</p>	<p><b><u>SOC-EC</u></b></p> <p> Reinvestment of surplus capital to support social mission is not always prioritized</p> <p><b><u>SOC-ENV</u></b></p> <p> Goods may be produced under challenging work conditions</p>	<p><b><u>LINKING-REPUTATIONAL-ECONOMIC</u></b></p> <p> Partnerships with SEs to reinvest surplus capital and improve corporate image via social procurement &amp; B2B</p>
Mainstream spaces of exchange	<p><b><u>REPUTATIONAL-SOC-ENV-EC</u></b></p> <p> Improved socio-environmental image of mainstream companies by donating surplus materials and/or exchanging them (B2B); lower waste management fees</p>	<p><b><u>SOC-ENV-EC</u></b></p> <p> Not all clients are located in close proximity to <i>heidenspass</i> premises</p>	<p><b><u>LINKING-SOC-ENV-EC</u></b></p> <p> Partnerships with SEs to donate/exchange (B2B) obsolete materials for revalorization</p>
Alternative spaces of (in)formal (re- & co-) production	<p><b><u>SOCIAL</u></b></p> <p> Social welfare support services by providing  low-threshold employment to disadvantaged youth</p> <p> Improved well-being</p> <p> Reduced urban crime rates</p> <p><b><u>ECONOMIC</u></b></p> <p> Reduced rates of production of</p>	<p><b><u>ECONOMIC</u></b></p> <p> Short-term contracts (up to 6 months) that offer up to 4h &amp; 3 days of work per week</p> <p> 1-year funding contracts subject to renewals &amp; negotiations</p> <p> Competition for material resources with other similar enterprises</p>	<p><b><u>LINKING</u></b></p> <p> Lack of formal contracts with mainstream companies (more flexibility)</p> <p><b><u>SOC-PER-EC-ENV</u></b></p> <p> Training and counselling in climate change, drug prevention, sports</p>

	<p>landfilled food, wood &amp; textile products</p> <p><b><u>PERSONAL</u></b></p> <p> New social, language, motor, creative, tailoring, joinery &amp; cooking skills</p> <p> Flexible work schedules</p> <p><b><u>ENV-SOC-PER-LINKING-EC</u></b></p> <p> Environmental awareness-raising work activities, DIY workshops &amp; cooking sessions</p> <p>  </p> <p></p> <p><b><u>ENV-SOC</u></b></p> <p> Proximity of spaces of production to spaces of consumption</p> <p></p> <p></p> <p><b><u>ENVIRONMENTAL</u></b></p> <p> Only vegetarian and vegan meals are offered</p> <p> Rented premises</p>	<p><b><u>SOC-EC</u></b></p> <p> Strong attachment to workplace does not motivate them to seek 'formal' jobs</p> <p> Certain cuisines dominate</p> <p><b><u>SOCIAL</u></b></p> <p> Inability to hire refugees</p> <p><b><u>SOC-EC</u></b></p> <p> Limited marketing</p> <p></p> <p><b><u>ENVIRON.</u></b></p> <p> Some collages incorporate plastic</p> <p><b><u>SOC-EC</u></b></p> <p> Production inputs may embed negative social &amp; environmental footprint</p> <p></p>	<p><b><u>PER-EC</u></b></p> <p> Partnerships with mainstream companies to progress young employees' careers</p> <p> Growing competition induces necessity to differentiate products</p> <p><b><u>SOCIAL</u></b></p> <p> A high employee turnover rate</p> <p> <i>heidenspass</i> appreciates customer feedback</p> <p><b><u>LINKING</u></b></p> <p> Growing trends among companies to improve their corporate image by partnering with SEs</p> <p></p> <p> Ability to negotiate distribution of funds with local authorities</p> <p><b><u>ENVIRON.</u></b></p> <p> Changing directives on plastic use</p>
<p>Alternative spaces of exchange</p>	<p><b><u>SOC-ENV</u></b></p> <p> Revenue from sales is reinvested into socio-environmental mission</p> <p></p> <p> Rented premises</p> <p><b><u>SOCIAL</u></b></p> <p> Community events</p> <p></p> <p><b><u>AESTHETIC/ IDENTITY</u></b></p> <p> Aesthetic goods</p>	<p><b><u>ENVIRONMENTAL</u></b></p> <p> International sales; not all clients are in close spatial proximity to <i>heidenspass</i></p> <p><b><u>ECONOMIC</u></b></p> <p> Expensive products</p>	<p><b><u>SOC-EC</u></b></p> <p> <i>heidenspass</i> encourages customer feedback</p> <p></p>



<p><b>Alternative spaces of productive consumption</b></p>	<p><b><u>EC-LINKING</u></b>   Lunches are provided for customers      <b><u>ECONOMIC</u></b>   Eatery and shop are merged</p>	<p><b><u>SOC-ENV</u></b>   The project is not sufficient to significantly challenge throw-away culture (possibility of rebound effect)    <b><u>ECONOMIC</u></b>   Only lunches are provided  </p>	<p><b><u>ECONOMIC</u></b>   Crowdfunding campaigns to support socio-environmental mission    <b><u>LINKING</u></b>   <i>heidenspass</i> membership to join various community activities</p>
<p><b>Spaces of metabolism</b></p>	<p><b><u>ENVIRONMENTAL</u></b>   Transformation of organic waste into energy</p>	<p><b><u>EC-ENV</u></b>   Transportation of waste does not solve deeper waste problems     Anaerobic digestion fees</p>	

**Legend representing key actors who are directly impacted by respective value outcomes:**

- |  |   |
|--|---|
|  <i>heidenspass</i> employees |  Society           |
|  <i>heidenspass</i> customers |  Environment       |
|  Private company (B2B)        |  Local authorities |

### 5.2.6 A Summary of Resource Flows across Variegated Geographies

To summarize key findings in section 5.2, Figure 5.3 below presents an overview of identified spaces of (re- & co-)production of value, circulating production inputs, (co-)producers and (co-)produced items associated with respective everyday life sectors. The presented model highlights that residents/citizens may be prosumers who may also co-produce knowledge with producers, thus exemplifying a spatial and temporal overlap of production and consumption processes (Ritzer et al., 2012). It also reveals how respective everyday life sectors accommodate a number of different reclaimed materials.

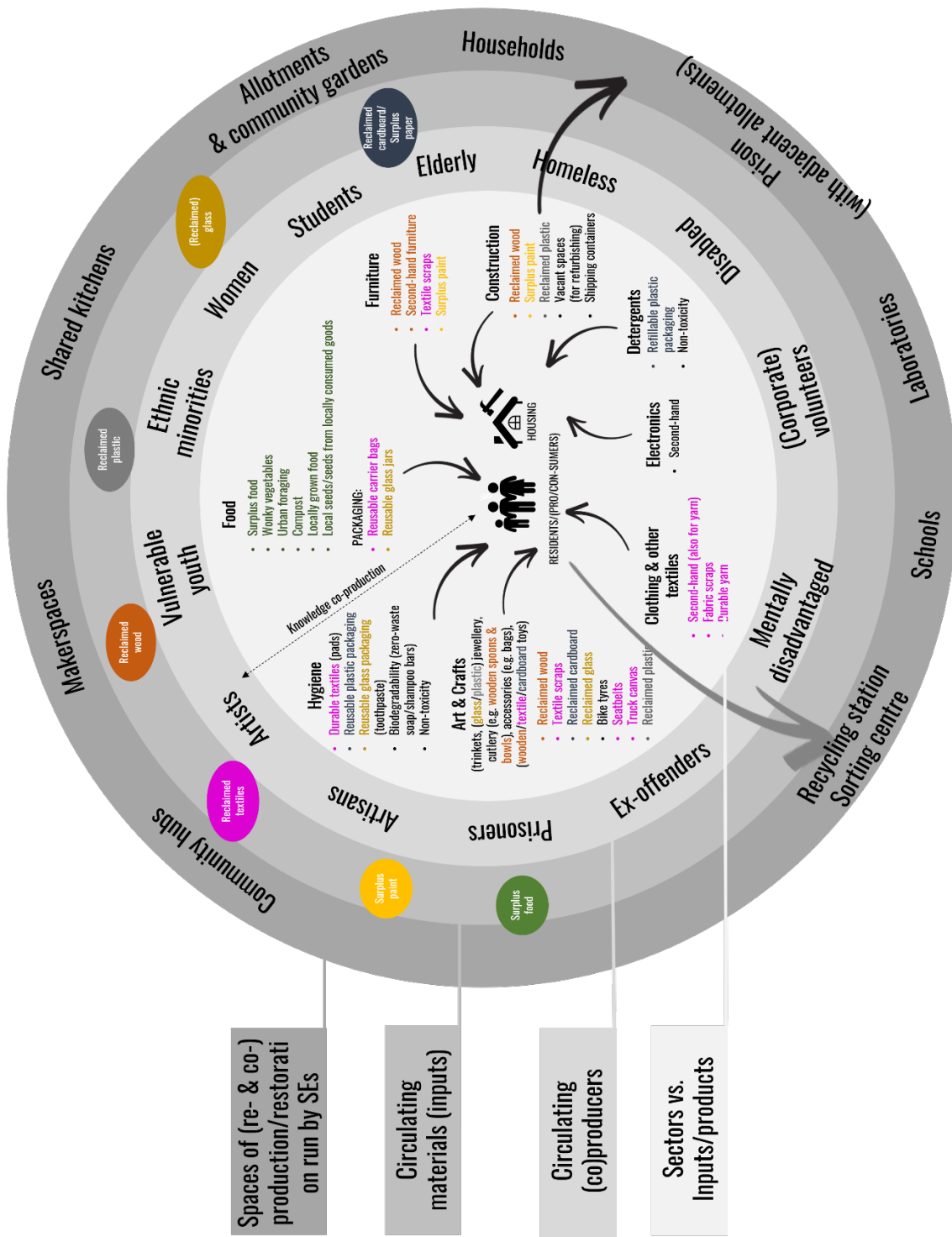


Figure 5.3 - An overview of spaces of (re- & co-)production, circulating materials and (co-) producers, and generated items in the context of case study SEs in Hull (UK), Graz (Austria) and Santiago (Chile)

### 5.3 Extra-economic Conditions: Interrogating Feedback Loops in the SE-led Local Development of the CE

This section seeks to reveal some of the extra-economic dimensions of circuits of value across mainstream and alternative economic spaces in the context of respective SEs. In doing so, it critically interrogates how such cross-realm feedback loops raise a range of environmental and socio-ethical considerations across variegated geographies.

#### 5.3.1 Environmental Considerations

Many of the second-hand materials used in SEs have already circulated through Global Production Networks (GPNs) (see Coe et al., 2008), and more specifically, extra-local spaces of production, exchange, and consumption (the upper circuit of capital). This implies that they already embody negative carbon footprint, although it may be residual if we assume that the carbon footprint of an item is gradually written off over the course of its lifetime (unless the item was prematurely discarded). This interpretation appears to conflict with proponents of the CE, who recognize the importance of the spatial proximity between respective economic units for the development of a sustainable CE. According to Stahel (2013), a sustainable CE occurs when all production inputs are sourced, produced, and consumed locally. Moreover, the research shows that some of the circulating second-hand materials may comprise raw materials that were extracted without regard for the natural environment, thus contributing to its irreversible modification and revealing how capital may subsume nature (Hudson, 2005). On the other hand, such recirculation of materials is better than having those materials abandoned, yet unless SEs do not indirectly perpetuate resource extraction. I will now highlight some of the key environmental concerns that emerged from the sector-specific case studies.

##### *Food sector*

Recovery of food surplus, which enables diversion of food waste from landfill, is recognized as an important practice that reflects CE thinking. A prominent example of a SE committed to redistributing food surplus from the Hull-based research is FareShare Hull & Humber, which is officially managed by the Goodwin Development Trust. Over the past few years, FareShare Hull & Humber collected food surplus throughout the UK and delivered it to over 100 VCSE sector organizations, including school breakfast clubs and homeless shelters in Hull. In this way, the SE fights food poverty among those who are not only at risk of hunger, but also loneliness or isolation. According to the Development Manager at FareShare Hull & Humber, *“FareShare Hull & Humber saves more than 400 tonnes of surplus food from waste each year – enough to provide over 900,000 meals for people in need”* (Bilson, 2020).

Despite distributing food to a number of organizations, there are high amounts of so-called ‘*surplus surplus*’, i.e., food surplus that cannot be reused/redistributed within alternative spaces of (re- and co-)production and consumption (Representative of Goodwin Development Trust, Interview, April 2021). Crucially, the findings reveal that such ‘*surplus surplus*’ continues to grow so that Goodwin Development Trust incurs fees for managing food disposal. By the time many food products provided by FareShare UK arrive in Hull, they are already past their ‘best before’ date, which, according to the regulations imposed by FareShare UK, makes them legally inedible, yet they are not harmful to health. The SEs is hence liaising with FareShare UK, especially given that WRAP is in favour of redistributing such food products. High volume of non-redistributed food surplus can be also associated with the fact that FareShare Hull & Humber “*deals with tinned food for catering, yet cafes and kitchens have been closed to cook it during COVID-19 pandemic*” (Representative of Goodwin Development Trust, Interview, April 2021). Besides, interviews with SEs relying on food surplus provided by FareShare Hull & Humber indicated that the food is tinned (and hence not ‘fresh’/straight from the farm) and the ‘food trays’, used to distribute the food, cost money. One SE has thus started to look into community anaerobic digestion projects, which will enable it to convert remaining food surplus into energy and would be run in partnership with a private company. Such an alternative solution, however, entails its own environmental costs and does not help to eradicate food insecurity (see 2.3.1).

Also performing an important role in the local development of the CE, urban allotments offer a different approach to food aid initiatives, the latter entailing reliance on food surplus from large retailers. For example, Rooted in Hull - an urban agriculture project in central Hull – emerged after HCC became concerned with the rise of food banks across the city. The representative of Rooted in Hull noted that:

*“The food in food banks comes from the supermarket, which is put on a pallet, which is a cost in itself and it has to be delivered. A lorry has to come and pick it up and it requires a driver who can take it over to a warehouse/distribution centre. It then has to be loaded again and taken out to various centres through the city. Those centres need to have a building so there will be rent to pay on it. And we say this is one hell of an expense: go to the corner shop, pay a quid for a bag of flour. And then make your own bread. That is a lot cheaper than all of that shenanigans, wasting food. Now that is a very simplistic view”*

(Interview, January 2021).

The above statement indicates the necessity to account for not only for high environmental but also economic costs when it comes to redistributing food surplus. Yet the findings reveal that such SEs are not concerned with measuring carbon footprint/‘energy waste’ embodied

within food products; instead focus on the benefits of preventing large tons of surplus food from being landfilled. Moreover, alternative initiatives such as Rooted in Hull focus on self-sufficiency. The SE sells its locally grown produce on the farm's premises and offers food delivery within a cycling distance using its new cargo bike fleet. Any unsold food surplus is then distributed to community groups serving vulnerable people in low-income neighbourhoods in East Hull. Contrary to food surplus coming from large retailers, Rooted in Hull's food surplus carries high social and environmental value in that the food is grown locally and without the use of harmful pesticides and artificial fertilizers (the SE, in fact, relies on locally made compost).

In a different spatial context, another example of a food-sector SE, which manifests CE thinking and practice, concerns Prana Sopas from Santiago (Chile). Prana Sopas offers home-made soups in jars that can be reused. Such returnable packaging system whereby glass jars can be reused locally is what distinguishes meals offered by Prana Sopas from meals that are, for example, offered by EMS in Hull (EMS, on the other hand, offers more diverse and more substantial meals). Although food ingredients are sourced from local food makers, glass jars are produced outside Santiago, yet within the country. Interestingly, glass jars sourced by Biorigen come from China as the entrepreneur is unable to source them from Chilean providers as she needs only a small number of jars. Some of the packaging used by Soap from the Heart (Hull) likewise comes from China through an intermediary company. Furthermore, empirical observations have revealed that SEs working with (surplus) food do not make any significant attempts to reduce food packaging. An exception concerns zero-waste shops (e.g., Súper Justo from Viña del Mar, Chile), which are indirectly supported by laws prohibiting supermarkets from offering plastic bags (e.g., Chao Bolsas Plásticas under the Law No. 21.100, cf. 2.4.3). Súper Justo shop, however, enables its customers to reuse their own plastic bags. While this may raise hygiene-related issues, the CEOs of Súper Justo noted that they promote commerce based on trust between sellers and buyers at the neighbourhood level.

#### *Wood sector*

Similarly to the food sector, the research reveals that there is such a high volume of surplus wood that it surpasses the capacity of SEs to reprocess it. Some of this surplus-surplus therefore either does end up in landfill or is incinerated. For example, the representative of Recycling Unlimited, a SE reusing wooden pellets, noted that:

*"We received twelve hundred pieces of wood a week from one company and it became too structured and demanding for us so we just gave up in the end"*

(Interview, July 2020).

Similarly to subjecting food surplus to anaerobic digestion, untraded wooden pellets may go to Drax where they are transformed into particles for wood burning. The large amount of surplus pellets does not prevent a power plant in the Humberside region from purchasing wooden pellets from the Canadian company that offers biomass produced solely for the purpose of trading it internationally (Edwardes-Evans, 2021). On top of that, private companies find it cheaper to continue burning wooden pellets as this involves less bureaucracy and sometimes lowers waste management costs (e.g., in case a SE managing wood does not pick up wood). Recirculation of wooden resources may be also obstructed by the fact that some wooden items may be contaminated. Some SEs such as Makerspace Hull may also not have sufficient equipment such as computerised drill cutters to procure recycled wood of unknown shapes. All these aspects carry certain environmental implications.

#### *Textiles sector*

CE offers a novel approach to transform production, consumption and disposal of textiles through environmentally beneficial activities such as rental and leasing, reusing (including buying second-hand), repairing, upcycling or eco-design for biodegradability, longevity and durability (Staicu & Pop, 2018). In terms of reuse practices, the findings reveal that large amount of textiles in circulation likewise surpasses the capacity of SEs to reprocess it. Linked to this, the representative of ScrapStore Hull highlighted that:

*“We aren’t allowed to take pictures to advertise private companies’ items because they throw so much that they do not want to put their name to that”*

(Interview, October 2020).

On top of that, findings revealed that the vast majority of clothes in charity shops is manufactured in Asia and SEs may also import textiles from abroad. For instance, in the case of Chilean SEs, while Miss Moon Reutilizables imports new waterproof fabrics for reusable pads from the US; and Uniformes Recicladados imports second-hand textiles from the US where they have already been imported from Asian countries. Unsold clothes may be then either sold to rag merchants who pass them to third countries or incinerated. For example, one upmarket British fashion label destroyed over a period of five years unsold clothes and accessories worth over £90 million because they did not want to tarnish their brand (BBC, 2018a). The representative of the Charity Retail Association in the UK also noted that the recycling market is not big enough and there is not enough financial value in terms of the stock that goes into that channel (Interview, August 2020). Another aspect concerns the fact that (vintage) clothes increase in value over the years, yet currently many clothes are of lower quality. There is hence

the need for more technological innovations enabling to recycle textiles (cf. Ecocitex, Appendix 3).

#### *Mixed sectors*

In contrast to SEs in Hull (UK), the majority of SEs in Santiago (Chile) is interested in selling items abroad (an exception concerns entrepreneurs such as Miss Moon Reutilizables who does not sell to overseas customers due to slow and expensive mailing services). Crucially, the vast majority of SEs do not seem to seek ways to offset carbon emissions, for example by engaging in carbon credit schemes. Interestingly, one entrepreneur selling products abroad noted that selling platforms such as Etsy do offset carbon emissions, thus implying how some entrepreneurs may shift responsibility of lowering carbon emissions onto others. Some SEs such as Enviromail, which exports processed waste globally due to the lack of mills to process recyclables locally and preferring to sell recyclables to the highest bidders, also claim to offset any environmental costs by shifting the focus from being a mailing company only to becoming a recycling company. Any further efforts to lower carbon emissions are likely to encounter financial difficulties as SEs already experience financial distress.

Spatial proximity between respective, yet variegated, economic units is another aspect that may have environmental implications. For example, while *heidenspass'* spaces of production (i.e., textile workshop and kitchen) and spaces of exchange and consumption (i.e., shop with adjacent eatery) are co-located in the same rented premise, the interior design workshop is located within a relatively short journey by public city transport from the retail shop. The notion of spatial proximity does not, however, capture online sales of goods to individual customers or private (B2B) clients associated with the majority of enterprises, and who provide a life sustaining value. In a similar fashion, B2B partners and donors of second-hand materials are not always located within the SEs' local boundaries.

#### **5.3.2 Socio-ethical Considerations: Gender, B2B and Cyberspaces**

This subsection explores several socio-ethical considerations surrounding circuits of value in the context of employed case studies. It reveals how social relations shape material practices that are vital to the reproduction of social life. The first two subsections explore the subject of labour, which needs to be at the forefront of discussions of circuits of value in a diverse economy (Gibson-Graham, 2006; Jonas, 2010). This is because it is important to recognize the full diversity of labour relations and conditions (5.3.2.1), including notions of gender and identity (5.3.2.2), which underpin ethical negotiations of economic development trajectories (McKinnon, 2020). It then explores socio-ethical considerations surrounding B2C/B2B transactions that involve agreements between SEs and private companies (5.3.2.3). Lastly,

subsection 5.3.2.4 explores ethical issues surrounding the use of digital platforms, which not only blur the mainstream-alternative boundaries, but are also important for bringing together customers and services.

#### 5.3.2.1 Labour Conditions, Relations and Reproduction

Concerning labour conditions, findings reveal that many of the second-hand/surplus materials that employees of several SEs under study work with may already embody low labour costs, which neither compensate for potentially precarious working conditions nor unfair remuneration - issues that are often signalled in the context of low-income countries of the Global South (Wright, 2006). As Campana et al. (2017:125) mentioned: *“the mainstream economy is typically conceived to extract value from local communities, (...) and lead[s] to crises and social stratification”*. Linked to this, the Director of Enviromail described its vulnerable beneficiaries/workers as...

*“(...) people who are not against the system but who have been broken by the system and do not see how the system works and how the system is benefitting them and they just feel trapped by the system”*

(Interview, June 2020).

It is thus important to question as to what extent material circuits in such circular economies are moral (Gregson et al., 2015) by exploring the conditions of labour and associated circuits of value *“through which material economic life is performed and reproduced”* (Jonas, 2010:15), and which go beyond ascribing value to a commodity based on the time and amount of work spent on producing it (Lee, 1993).

Low labour costs may translate into decreased exchange value (i.e., price) of produced goods. This may have implications for the development of CE initiatives, and hence (local) value creation. For example, an interview with the CEO of *heidenspass* demonstrated that some of the private companies (clients) are unwilling to purchase *heidenspass* bags made from discarded materials as they are deemed too expensive when compared to similar products tailored in lower-income countries. Besides, junior *heidenspass* or Ecocitex employees (i.e., ex-offenders) usually work at low wages on a part-time basis, yet the prices of the final, high-quality goods they produce are rather high. This may deter consumers with a lower income elasticity, notwithstanding their growing social and environmental awareness. A question then follows as to whether the labour of employees in such ECO-WISEs is subject to some sort of exploitation, especially given that the utilization of mainstream ‘waste’ and second-hand items effectively lowers production costs. The findings nonetheless reveal that financial gains, which are relatively small, are not the primary reason employees join such projects. Many of them



simply seek to improve their CV resumés and language skills, and to become better integrated into the host society. Such placements usually occur on a short-term basis. For instance, the Director of Enviromail noted that:

*“We still have a few long-term volunteers, but we try to limit it to four weeks because otherwise it would be a slave labour scheme”*

(Interview, June 2020).

Nonetheless, some employees in ECO-WISEs may, under exceptional circumstances, work for longer periods of time, thus preventing others from entering the scheme and showcasing uneven dynamics at the micro level. This indicates that some of those employees may have strong attachment to workplace and/or struggle to attend full-time education or access other work placements. Such short-term employment contracts also imply that employees face a lack of stability.

Many SEs had to make a trade-off between remaining faithful to their core mission of socially and personally (rather than strictly financially) empowering many individuals and growing in size to increase volume of sales (including B2B transactions), accumulate more capital, and increase wages whilst possibly producing cheaper goods of lower quality, for profit, and on a mass scale (see circuit 3 & 4, Figure 5.1). The latter case suggests that a number of SEs would cease to rely on state support, which often constitutes a major part of their available capital, hence providing a life sustaining value (Lee, 2006). Interviews with beneficiaries of SEs offering low-entry work insertion schemes such as *heidenspass* or Enviromail additionally reveal that their work environment encourages them to express their creativity and gain transferable skills, which may be applied in the mainstream labour market (i.e., wider circuits of value). Consistent with study conducted by Anastasiasas and Mayr (2009), many of such ECO-WISEs are, *de facto*, primarily concerned with social, rather than environmental aspects. Moreover, the fact that employees can gain valuable social skills through interaction is in line with the theory of social constructivism, which postulates that human learning and development is the outcome of interaction with others in a given group (McKinley, 2015). Crucially, all of this is contingent upon employees displaying high degrees of trust in managers who co-design circuits of knowledge exchange in a flexible, relaxing, experiential, ethical, and collective work environment where there is a ‘family-like’ feeling. As one of the junior staff managers in *heidenspass* stated:

*“We learn through experience. We make things happen even if it seems challenging. If something is not working, we readjust it”*

(Interview, November 2019).

In a similar fashion, the representative of Enviromail noted that:

*“If you have been out of work for a long time, it’s hard to get back in. But a lot of our people are isolated. So they want to come in and socialize with others before they make that step. We are like a family. A lot of them come to work at 7am and the work starts at 8am. We receive referrals and they gain 4-week work experience. And then we work with other providers, helping them find employment. So we are a sheltered factory.”*

(Interview, June 2020).

While the workers producing purely for-profit goods in the mainstream spaces of production may also have good relations with colleagues, *heidenspass’s* primary mission is to help disadvantaged young individuals benefit from the social integration and work scheme. Overall, such multiple social benefits associated with labour intensive practices are in line with Rowan et al. (2009) who noted that resource recovery *“is as much about the human recovery as it is about material resources”* (page 10). On the other hand, resource recovery and management practices such as those at Enviromail’s premises involve work with toxic elements from the mainstream waste stream. This may raise negative connotations associated with such practices, and which need to be challenged in order to stimulate socially just CE development.

While the above examples illustrate formal employment in the SE sector, a number of entrepreneurs offer confidential informal agreements to workers such as tailors and sewers. Some of those SEs are interested in formalizing workers and paying them for hours spent on making a product rather than the final product despite any increase in the overall operating costs. Another example showcasing how formal and informal sectors intersect concerns Enviromail’s interaction with a gypsy community whose members bring Enviromail cardboard for processing. Although there are no efforts to formalize such communities that additionally collect scrap iron, steel and domestic appliances from the streets (thus preventing fly tipping), Triciclos – an enterprise from Chile – exemplifies how they formalized some informal waste collectors who currently complement their operations and enrich users of local recycling stations through a profound level of interaction with local communities.

#### Social/labour reproduction

Concerning (labour’s) social reproduction (Jonas, 2010), to some, the use of unsold food surplus from large retailers or individual donors as cooking ingredients for meals for vulnerable people or employees on a basic income level (the latter exemplified by *heidenspass* and Enviromail) may be perceived as *“bad food for poor people”* (Holmes, 2018:145). It also exposes a range of social inequalities and raises concerns over increasing reliance of people on food aid. For example, food surplus offered by FareShare Hull & Humber to Enviromail

employees (in exchange for enabling FareShare Hull & Humber to use Environmail's IT Hub) does not offer its recipients an opportunity to select preferred food products and may be thus inappropriate for people with special dietary needs (e.g., diabetics)<sup>26</sup>. Such food parcels are, in fact, often targeted at catering services, yet social food kitchens can provide hot ready meals to people who do not have electricity (cf. Hull Foodbank and TECHO Chile). More importantly, meals incorporating unsold food surplus may not solely implicate reproduction of labour power (Warde, 1992) because production processes of such meals may facilitate the formation of strong and trust-based horizontal working relations that span upper and lower circuits of value. Linked to this, cooking and food sharing sessions run by some SEs (such as *heidenspass* or Timebank Hull & East Riding) with employees, local authorities, and clients (B2B), exemplify how alternative spaces of production and consumption may become sites for "*practicing new social relations and new political, environmental and economic subjectivities*" (Davies & Evans, 2019:157), and which are characterized by strong intra- and inter-organizational "*relational assets, which embody social capital*" (Kim & Lim, 2017:1427).

Interestingly, *heidenspass* collects food surplus from large retailers in order to transform it into meals for sales at *heidenspass* eatery. Nonetheless, contrary to SEs providing food aid to those in need for free or monetary donation, *heidenspass'* meals are sold at a regular price. Findings further reveal that the customers, who are aware of the fact that the served food comprises 'unsold surplus ingredients' from retailers, do not question the quality of the food; instead, the idea of using food surplus appeals to their environmental conscience. Following Warde's (1992) notion of identity-value, which is associated with spaces of consumption and is not adequately captured in orthodox economics, it could be that *heidenspass* customers find new ways of enhancing their identity (e.g., environmental identity) by 'consuming' *heidenspass's* meals or items such as unique accessories. To some extent, *heidenspass* products hence drive the 'conspicuous consumption' whereby individuals seek to display one's social status or taste in certain products by purchasing them (Veblen, 1998 [1899]). This is especially the case given that *heidenspass* accessories look of high quality (thus erasing the stigma of using reproduced 'waste') and can be tailored according to individual desires. The same thinking can be applied to SEs such as Happy Bird producing durable bags out of upcycled plastic or ROPO Design producing accessories out of textile scraps (see Appendix 3 for more examples). Identity-value can be also manifested in spaces of production. When cooking national dishes, SEs such as BAMEEN CIC or *heidenspass* help their beneficiaries to express/enhance their national identity.

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<sup>26</sup> Unless they are subject to careful selection by VCSE sector organizations that receive them prior to distributing and possibly reproducing them for affordable meals.

By further referring to environmental conscience, a representative of a SE representing food sector noted that:


*“When I am speaking to a new organization that want to set up a community shop, I suggest them to show people that ‘we are doing a good thing for the environment by reducing food waste’ instead of focusing on food poverty. This removes the negative connotation with a food bank. If people think they are doing something good for the community, then let them know that they are getting a bargain”*

(Interview, August 2020).

Nonetheless, while using food surplus saves SEs money (which can be then reinvested into local community activities), such an approach may result in normalization of the problem of food overproduction and does not tackle socio-economic inequalities, which are deeply ingrained in modern society. Stated differently, advertising such schemes may not undermine moral intensity around food waste in that users of food surplus may not perceive an ethical problem associated with food waste in the action (cf. Sonenshein, 2007). It also shifts attention away from the underlying issue of food poverty, hence weakening perceived moral intensity thereon and ultimately individual decision making. Crucially, promoting such schemes has political consequences and findings reveal that local authorities are inclined to promote such food aid initiatives.

#### 5.3.2.2 Gender Aspects: ‘Empower a Woman and a Whole Community will Thrive’

There is a growing recognition that the transition from the current linear to a CE should be inclusive and collaborative, including the participation of different genders (and gender identities) (Schröder, 2020). This is greatly linked to SDG 5 advocating the need to *achieve gender equality and empower all women and girls* (UN, 2020). And yet, the role of women in navigating the transition towards the CE remains underrepresented in the current CE discourse (Rizos et al., 2017; Schröder, 2020; Korhonen et al., 2018). Contrary to Holmes (2018) and Schor et al.’s (2016) work on circular alternative economic spaces, the research findings do not reveal any significant gender inequality or imbalance within SEs except for SEs working with wood and composting where women constitute a minority. Many circular SEs under study are, in fact, co-founded and/or run by women, and some of them are specifically run for women. Examples concern art & craft activities that reuse second-hand materials (e.g., Traenerhus), production of DIY zero-waste soaps/shampoos, toothpaste and detergents (e.g., Emporio Natural; Soap from the heart; Biorigen; Freemet), reusable sanitary pads (e.g., Miss Moon Reutilizables), recycling of textiles (e.g., Ecocitex – a SE offering female ex-offenders access to technical roles that have been historically reserved for men; Life and Loom; ROPO Design), or

food sharing (e.g., EMS; Hull OLIO) (see  indicating 25 SEs run by women in Appendix 3). Besides, while Tedoy - a SE running Facebook groups ('Tedoy Grupos') enabling users to share their no longer wanted goods - was co-founded by male entrepreneurs, Tedoy Grupos are usually managed and actively used by females. Moreover, the fact that SEs such as Emporio Natural and Soap from the heart provide educational and female-oriented workshops on how to make zero-waste detergents and toiletries, is consistent with Howell (2020) who noted that *"women have higher levels of socialisation to care about others and be socially responsible, which then leads them to care about environmental problems and be willing to adopt environmental behaviour"* (Howell in: Hunt, 2020). Interestingly, the CEO of Traenerhus - a SE providing craft workshops (and space therefor) that may include upcycling – also noted that her women-empowering entrepreneurial craft & art activities<sup>27</sup>, may result in the shift in the division of labour at home. As she noted:

*"After women were going out, making things and doing events for free, they started earning money and then men started saying: 'Oh, it's alright, I will cook for you tonight' or 'I will look after children' etc. So where we saw resistance from men early on, men became more supportive at home once money started coming in. And a number of those women do things professionally and some remain happy as hobbyists or work in the art field."*

(Interview, August 2020).

The above statement reflects how activities in spaces of production and exchange of knowledge have far-reaching social impacts in other aspects of life. Such spaces can be also viewed as spaces for awareness raising and cultivating CE thinking whilst safeguarding wellbeing and promoting female leadership and managerial roles, especially in countries such as Chile where 'machismo' is still deeply ingrained in the society despite recent efforts to challenge it through state programmes such as 'CORFO de Mujeres' (cf. 4.3.2). In a similar fashion, a city councillor noted that one of HCC's priorities of their regeneration schemes concerns support for (future) female entrepreneurs. Overall, by formally recognizing and supporting diverse CE activities run by SEs, and which may continue to be performed at the household level, there is thus an opportunity to empower women and view their social, environmental and economic leadership as a way to further stimulate the development of a local, inclusive and community-based CE. This is even more important given that many women suffer from discriminatory laws and social norms that obstruct their autonomy and put them at

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<sup>27</sup> Originally run as part of Judy's Attic – a cooperative for female makers.

risk of being exploited at workplace (and beyond), both mentally and physically (OECD, 2020). It is, however, likely that some sectors in the CE will remain dominated by men (e.g., wood sector) and other sectors by women (e.g., hygiene sector).

### 5.3.2.3 (In)Formal Transactions with Private Companies: Genuine Impact or Window Dressing?

SEs under study have variegated structures, which are reflected in different transactional contexts that shape interactions between upper and lower circuits of value. In line with Lyakhov and Gliedt (2017), SEs' partnerships or collaborations with private sector organizations are characterized by variegated forms of control, levels/frequency/intensity and longevity of interactions, degrees of formality and extent of dependence upon funding. While some SEs tend to focus more on accepting/seeking donations of resources, others tend to place more emphasis on (in)formal B2B transactions with private companies, and which enable them to pool together necessary resources (see Appendix 3). Interestingly, Porter and Kramer (2011) and Austin and Seitanidi (2012a) recognized collaboration across profit and non-profit boundaries as highly important in that it can enable to create more (synergistic) value together than they could have done separately. While findings reveal that businesses naturally get involved with charities, such collaborations do, however, raise a number of concerns associated with greenwashing.

The sector-based research findings reveal that many transactions between SEs and private companies are subject to negotiations resulting in verbal, informal and loose agreements, rather than formal written contracts between enterprises within a given sector. Examples of such informal agreements concern sourcing of wooden pallets by Recycling Unlimited, food surplus by FareShare Hull & Humber and EMS Ltd, textiles in case of *heidenspass* or mixed materials such as paper or items such as mannequins in case of ScrapStore Hull. The semi-formal character of transactions (including B2B transactions) enables SEs to circumvent formal bureaucratic contracting processes (hence adding economic value), yet it involves dependence upon relatively high degrees of trust between transacting parties (cf. Granovetter, 1985). Linked to this, when asked as to whether contracts with private companies would be useful, the manager of *heidenspass* admitted that: *"Sometimes contracts make things more complicated"* (Interview, November 2019). The CEO of *heidenspass* also mentioned that: *"It is very important to have personal contact with firms. People who know me trust me as I have a good reputation"* (Interview, November 2019). In a similar fashion, the representative of ScrapStore Hull highlighted that SE's relations with suppliers of secondary products should be underpinned by high levels of trust by noting that private companies urge ScrapStore Hull to

ensure that donated goods are not resold for profit (after they are purchased by an individual customer). As the representative of ScrapStore Hull noted:

*“I thought we were selling this lady mannequins in good faith and she said she was going to do a project with young people, and then we found them for sale at a flea market. Once I lost a supplier - who was saying that we were selling fabric online, but in reality it was being sold from London - it was fabric that we have never had, and we don’t know if they have just said that as a reason to stop giving it to us. Another time we were told that some photo albums had been found on a market. But when I collected the photo albums I had to take them out of the box and then when they were being sold on the market they were all boxed up and I said, ‘Well, that can’t possibly be from here because we never had them like that’”*

(Interview, October 2020).

Interestingly, ScrapStore Hull does not rely on contracts with private companies that transfer waste, and, instead, only issues waste transfer notes in order to prove that the SE does not simply take waste from the company and dispose of it by dumping. Such system reassures companies about handling of their waste so that they can prove in their corporate social responsibility (CSR) reports that their waste is being reused through charitable organizations. Similarly, the CEO of Rincón del Pallet – a SE upcycling donated wooden pallets – noted that the only thing the private companies require is to prove that what the SE does with its surplus materials is compliant with what it says it does. The informal nature underpinning ‘waste transfers’ was further indicated by the CEO of EMS who noted that transactions underpinning transfer of food surplus are informal and relationship-based:

*“We wouldn’t want contracts because in the end of the day, that’s well within their right to stop providing us with food. I mean we are getting it for free and some of them send us corporate volunteers as part of their CSR”*

(Interview, August 2020).

The CEO of Don Pallets – another SEs upcycling wooden pallets from Santiago – instead noted that he relies on ‘commercial agreements’ rather than contracts. As he said: *“There are high risks with contracts. If you do not comply with them, they will sanction you”* (Interview, March 2020). Nonetheless, he also reported occasional issues whereby some private companies do not respect such agreements by significantly delaying processing of payments for received services – an issue that could be potentially avoided through contracts involving financial penalties. HWR, in contrast, willingly relies on contracts with private companies that procure its services. As the representative of HWR noted:

*“We have about a dozen local contracts. Contracts provide regular income. There is always the odd one that forgets to pay or doesn’t pay on time, but private companies are generally more reliable payers who pay quite good and on time. So we have our own private contracts and we are constantly seeking more”*

(Interview, July 2020).

Moreover, the representative of Triciclos – an enterprise from Chile offering recycling stations and CE consultancy services to private firms –recognized contracts with clients as their assets. Contracts or tenders are also important for SEs such as Enviromail that provide waste processing services for private companies alongside public sector organizations and other SEs. Such tenders help to build trust and should be ideally accompanied by accreditations (e.g. ISO), which enable SEs to have competitive advantage over other organizations offering a similar service (see 7.4.5ii). Interestingly, the director of one SE managing waste noted that despite having a number of accreditations, the SE prefers not to disclose that they are a social economy organization:

*“We are trying to change the face of the third sector organizations but an impression from commercial companies for the third sector organizations is that you are a little bit too weak/vague so that you can’t deliver a service and you are not going to be there at the end of the night. This is why we tend not to tell our customers that we are a social enterprise”*

(Interview, June 2020).

It can be also noted that the provision of some services may revolve around non-monetary transactions, which help to build trust between transacting parties. For example, in exchange for collecting excess good quality (new) timber (grade A) from a construction site and clearing up that site, HWR offered the private company a token gift in the form of planters made out of collected timber and containing a brand-enhancing plaque: ‘Made from donated wood by Humber Wood Recycling’. This is consistent with Larson (1992) and Murphy (2006), who noted that exchanges underpinned by trust enable to lower costs associated with orthodox market coordination and integration of activities in a hierarchical manner. Overall, it seems that contracts or commercial agreements are more common in case SEs provide a service (often using donated secondary materials from the same private company) for a fee. In case SEs simply receive and/or collect private companies’ waste for reusing it within their premises, transactions tend to be rather informal.

#### *i. B2B Transactions versus Greenwashing*

The above examples raise important ethical questions with regards to the use of the performance of the CE as window dressing by private companies involved in B2B transactions



or donating surplus materials/waste to SEs. Window dressing refers to a strategy, often near the end of an accounting period, whereby company managers use mutual funds to boost their CSR and the firm's reputation in the face of many reputational pressures to green their corporate image (O'Neal, 2001; Lin, 2010). For instance, by transforming 'waste' from private companies, or in other words, residues of the main production cycle, into upcycled goods, or ready meals for vulnerable people, SEs enable private companies to capitalize their CSR, aligning it with SEs' social and environmental mission whilst lowering their waste management fees. In a similar fashion, Holmes (2018:145) noted that alternative circular economic spaces accepting mainstream 'waste' can be perceived (regardless sector) as *"a free solution to the waste problems of the capitalist [food] industry"*. As the representative of one wood upcycling SE from Hull mentioned:

*"We save them money because by us taking it away they are not having to pay for it to be taken away and it is good for PR for them and to be associated with the charity, but they are still hardnosed businessmen that are not generous with their money"*

(Interview, July 2020).

Linked to this, private companies also urge SEs such as ScrapStore Hull or charity shops not to disclose the large volumes of residues they send in order to avoid tarnishing their brand image. It can be also noted that some big companies such as those producing meat do not necessarily offer their production surplus as a way of managing their 'waste' but mainly as a way of boosting their corporate image, which is nowadays under a lot of pressure from advocates for animal rights. SEs fighting food poverty are not, however, particularly concerned about aspects related to conventional farming practices as they prioritize the delivery of food aid. As the CEO of EMS noted:

*"We have been working with Cranswick for around 3 years. Possibly they do face pressure. You gotta argue if they are an ethical company and I don't know what the inner workings of Cranswick are. But they always come across as being a high moral company with ethics and the staff have been always being fantastic"*

(Interview, August 2020).

Findings also reveal that some SEs may feel as if they were being taken advantage of by the private sector. For example, by referring to local builder merchants, the representative of HWR noted that:

*"They think they are doing you a favour. It is like 'you are a charity, I have got all this wood - can you come and get it?' And it is a load of contaminated wood covered in plaster, paint. It can be 20 odd fire doors coated in asbestos. And I am*

*like: 'No, they have to be professionally collected - something too expensive to do'. And they thought I was being a bit unreasonable because I would not come and collect it''*

(Interview, July 2020).

In a similar fashion, businesses donating their furniture to charities (as part of the clearance) do not necessarily take into account collection and transportation costs of donated items (Representative of The HEY Smile Foundation, Interview, September 2020). In such cases larger charities owning vans have competitive advantage over the smaller, less established ones that are less likely going to afford resource transfers and quality checks. Private companies seeking to donate unwanted post-clearance goods should, instead, choose to pay charities for having their waste re-purposed instead of paying waste management companies to take it away. In short, the VCSE sector deserves a fairer treatment that should involve subsidization of waste clearance services.

Interestingly, some SEs feel the need to form B2B partnerships with large private companies not only in order to sustain their ventures, but also to lower their own waste management fees. For example, the representative of one SE in Hull is exploring opportunities to partner with a private company intending to generate electricity using an innovative energy recovery process known as fluidised bed gasification. Given that the SE currently incurs waste disposal fees associated with large amounts of 'surplus surplus' of food that cannot be redistributed (even at no cost), its representative hopes that such partnership with the private company could enable it to convert their food waste into energy at no cost, yet the generated energy could be used for polytunnels and/or support a local community center. Such potential collaboration further exemplifies how businesses find strategic allies in SEs, which enable them to pursue their business interests (cf. Jug, 2020). It also further highlights how responsibility for waste generated in upper circuits of value may be transferred to SEs. In addition, yet in line with Seyfang (2009), by promoting anaerobic digestion, private companies illustrate how mainstream organizations tend to apply technical solutions to problems, which may only generate more solution-requiring problems in the long term.

Crucially, some private companies may explicitly engage in greenwashing practices through collaboration with SEs. For example, the manager of *heidenspass* revealed that one private company selling bags sourced *heidenspass* bags in order to market their bags as fairtrade, yet in reality only 2% of bags were from *heidenspass* and the rest of them were allegedly unsustainably sourced. SEs thus hold the power to potentially cause reputational damage to private companies (and themselves) in case such events are encountered. Private companies may also incur reputational costs in case they abruptly cease partnerships or miss an

opportunity to generate social, environmental and economic impact outside their organization (Austin & Seitanidi, 2012b). In efforts to minimize any risk of greenwashing, SEs such as Triciclos put high prices on their services and follow certain guidelines:

*“If you want to greenwash you can do it in a cheap way because you don’t have to go deep into the problem. Whereas we want to go very deep into the problem.”*

(Representative of Triciclos, Interview, March 2020).

Regardless of case-specific challenges associated with social-private partnerships, the CEO of Ecocitex – a SE recycling unsold clothes from large retailers – highlighted the importance of working with the ‘bad guys’:

*“I think for you work with the good guys the impact is not so good in the long run because the good guys are not generating a bad impact. If you get the bad guys that are polluting a lot nowadays because it's greenwashing, because they want to improve their brand name or because they generally are worried about the bad impact they're creating - if you get the bad guys to do a good thing then you're actually helping to decrease the bad impact they are generating. I'm not ashamed of working with the bad guys because when you work with the bad guys is the biggest and greatest impact that you can have because they're the one most negative impact in the world. If you get some negative impact, you're contributing significantly to the problem”*

(Interview, March 2020).

In a similar fashion, the CEO of BAMEEN CIC who is interested in providing environmental consultancy service to companies noted that:

*“You have to work with the private sector because the economy is led by the private sector. To make impact you need to work with private sector”*

(Interview, March 2021).

Moreover, the CEO of Don Pallets stated that he is not afraid of working with potentially suspicious big brands or being co-opted by large private companies, which, in fact, need SEs:

*“They [private companies] need us. They are like sharks that do not eat little fish [us] – they need clean-up. And then shark is in control. Sharks’ poo is circular economy: it is food for little fish, it feeds little fish”*

(Interview, March 2020).

Similarly, Plastic LUP from Santiago (Chile) capitalizes on post-consumer waste (i.e., plastic cups from plastic bottles) derived from a recycling company in order to upcycle it into plastic filaments for weaving by artisans. The above examples hence illustrate that SEs have an

untapped potential to assist private companies in taking responsibility for their products at the end of their life, meaning that they should lead discussions on EPR schemes (cf. 7.4.5v).

In any case, SEs may have a competitive advantage over purely commercial service providers in that they provide products and services that imbue not only social and environmental but also economic value. For example, when it comes to wood collection, the representative of HWR noted that:

*“If building companies want to get rid of their wood waste, they can either use our service: we come and collect it to recycle, rework, reuse and repurpose it; or use skips. An 8-yard community skip is for about £230 - you get 8 cubic yards of wood in that and that could be half a dozen pallets. We, in turn, have got a 16 cubic yard van meaning that we can get 50/60 pallets on it. So we can get three times the amount of wood on one of our vans, which they can put in a skip from which the wood goes for woodchip. We cannot match big companies using big 40 wood skips, but if small businesses around here are using a skip - we are much cheaper than a skip hire company”*

(Interview, July 2020).

While it may seem like a win-win transaction whereby each transacting party obtains a value specific to its motives (e.g., corporate partners may increase public awareness on socio-environmental issues being tackled by SEs), it is, however, important to acknowledge that B2B and similar exchange agreements may indirectly perpetuate deeper structural problems underlying contemporary economic systems. Following the European waste hierarchy pyramid (see Figure 2.2), it is important that companies prioritize waste prevention above reuse, recycling, (energy) recovery, and ultimately landfill in order to significantly minimize their negative environmental externalities (Hultman & Corvellec, 2012). While B2B partners of SEs may be already adopting some internal waste prevention strategies at the company level, by sending no longer in use materials or surplus materials to SEs, they do not prevent waste generation and overexploitation of natural resources. Besides, upcycled products, such as bags, are likely to be landfilled or incinerated at some point during their lifetime as they are made from non-biodegradable materials (unlike compostable wood or food waste). This further suggests that upcycling is not inherently circular unless it involves biodegradable inputs (e.g., newspapers for collages).

Moreover, by simply acknowledging social and environmental benefits of B2B partnerships, private companies are not likely to be profoundly challenged and rethink their ties to global commodity/value chains and exploitative labour relations (Phillips & Sakamoto, 2012). Even though SEs help to create demand for alternative markets offering circular products, these

markets currently do not seem to be sufficiently developed to significantly impact the way large capitalist companies act. On top of that, corporations intend to appeal to more investors by boosting their image through B2B partnerships. By enabling SEs to repurpose their waste, they hence (in)directly make profits, which may prompt them to exchange even more waste into corporate gifts or procure new goods from the upper circuits. In other words, despite high social legitimacy, SEs do not significantly challenge the value proposition of large international corporations and, instead, enable them to add community and public benefits into their existing business models. By spending their accumulated surplus capital on 'ethical goods', private clients often provide only a temporal 'spatial fix' of their capital (Aoyama et al., 2011). It can be therefore argued that the localized nature of B2B transactions tends to perpetuate patterns of uneven development resulting from economic practices sedimented in place, which often fail to establish a bridge between the local development of the CE and its capacity to establish connections between production, circulation, and environmental value at larger spatial scales. As Bornstein (2007:14) noted, "*Relatively few social entrepreneurs have achieved the levels of scale needed to excite state- and nation-level policy makers*". Nonetheless, this research later highlights that SEs collectively have a significant potential to contribute to national and international policy and practice evolving around the CE.

#### 5.3.2.4 Exclusion versus Inclusion: Confronting Digital Divide and Surveillance Capitalism<sup>28</sup>

Many SEs increasingly rely on (exclusively/non-exclusively), and are being enabled by, digital (mobile) applications, databases and social platforms, which help to re-value and recirculate wasted assets (cf. Recylink, Triciclos, Library of Stuff). Given that such digital technologies foster virtual interconnectedness and the creation of 'digital social capital' (Mandarano et al., 2010), they only further blur the boundaries between the social, public and private sectors. Although digital technologies connect people and improve the performance of (micro)enterprises (Islam et al., 2018), they also raise a number of ethical aspects, especially with regards to (1) social inclusion/exclusion and (2) power relations inherent in variegated ownership structures of digital technologies (Jafari & Moharrami, 2019).

##### *i. Digital Divide*

Digitally-enabled SEs, which serve local citizens, bear issues associated with the problem of digital divide, which prevents low income or elderly individuals from generating social, environmental and economic value by participating in circular economies. Stated differently,

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<sup>28</sup> Parts of this subsection were published in Lekan and Rogers (2020) and Lekan (2020).

certain groups of population in poor parts of the city (e.g., deprived residents in sites run by TECHO Chile) are even more likely to suffer from the lack of access to Internet and/or ownership of an electronic device coupled with limited capacity to maintain and utilize it. Such digital divide has been greatly manifested in the city of Hull (UK), which has high proportion of people without access to Internet and/or electronic device at home (Representative of The HEY Smile Foundation, Interview, September 2020). Findings also reveal that some of these vulnerable groups of people do not leave their neighbourhoods, for example due to inability to incur transport costs. It is therefore unlikely that impoverished individuals from East Hull will use Library of Stuff whose vast majority of members are medium-class dwellers located in one of the wealthiest parts of the city. The CEO of BAMEEN CIC additionally noted that it is very important to *“find a way to communicate with migrant communities to redirect waste from landfill by connecting people who ‘have’ with those who ‘do not have’ because ‘how many of them will be able to read on Samsung?’”* (Interview, March 2021).

Linked to this, while a digital divide is present in Hull, the COVID-19 pandemic has propelled many local SEs, support infrastructure organizations (such as VCSE Network facilitated by The HEY Smile Foundation), as well as public and private sector organizations at local and regional levels to join forces and collaboratively ensure digital services, infrastructure and equipment are accessible to all. This includes SEs such as Hull & East Riding Timebank willingly accepting donations of electronics that are subject to repair and refurbishing prior to being handed to the most vulnerable groups. Such infrastructure could be capitalized on in order to better promote CE activities. The formed subgroup aiming to tackle digital divide in the city is, however, likely to face challenges in maintaining stable collaborative relations with group members as there is allegedly nothing in there to protect the intellectual property of the ideas generated within the group. The manager of the group additionally noted that there are not going to be any legal arrangements between voluntary sector organizations as this could create additional bureaucracy. Such collaborative ties are thus likely to be underpinned by partnership agreements and terms of reference instead. On top of that, findings reveal that the social economy sector is severely lacking skills in technology, IT and switch systems, thus putting SEs under the risk of being locked into obsolete technological trajectories, with implications for impeded efficient data management (Cesário, 2014). This reflects that the issue of digital divide is, to some extent, also present among SEs whereby some of them have technological, and hence competitive, advantage over other SEs (cf. resource-based-view theory, 3.4). It is hence vital that SEs' reliance on digital infrastructure is accompanied by continuous learning and promotion of technological literacy among its users. This can ultimately impact diffusion of CE thinking and practice among SEs' beneficiaries.

ii. *Contested Power Relations: Surveillance Capitalism*<sup>29</sup>

Apart from the issue of digital divide, COVID-19 has also stirred concerns over enhanced surveillance capitalist practices associated with the use of digital platforms that are often owned and operated by large mainstream corporations forming tech monopolies. Understood as 'digital enclosures', such virtual spaces also allow companies to claim ownership over the information generated by the users of their apps (Andrejevic, 2007). In result, the collected personal data is subject to commodification, colonialism and circulation by and across private companies for a more targeted advertising (hence enabling to accumulate more capital), and in exchange for using those particular social media platforms free of charge (Tsalikis, 2019). Such capitalist logics of control and profit-making may hence penetrate those alternative digitalized economic spaces that rely on social media platforms such as Facebook to run their activities. This concerns Tedoy Grupos that rely on Facebook, yet the SE is currently trying to launch an App to create independent digital social networks that protect users' data and generate trust on a digital level. As the CEO of Tedoy (Chile) mentioned:

*"There is a need for transformation, migration toward a community-oriented model, toward a system, which enables to manage personal data more ethically. No data will be sold. It will never be our revenue model. It's about evolution, not revolution of our economic system"*

(Interview, March 2020).

Growing concerns over corporate surveillance and tech monopolies have thus opened up debates over the need for decentralization of proprietary social media networks by transforming them into digital commons that directly place control into the hands of the people. This has led to the emergence of collectively owned and democratically controlled 'platform coops', which challenge the power dynamics embodied in crony capitalist ownership structures. These alternative structures are characterized by participatory decision-making, transparency, data portability, and adaptive capacity to address emerging community needs (cf. Platform Cooperativism Consortium). Their premises are aligned with those of diverse circular initiatives, especially with regards to solidarity, social inclusion and distrust in conventional extractive models. In line with Scholz (2016), SEs such as Tedoy lack capital-raising skills in order to cover costs associated with the creation of such digital apps. This is where public authorities or some private sectors organizations could potentially subsidize software development and maintenance. While backing from political parties may raise concerns over lobbying and contested socio-political interests, the lack of political support has

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<sup>29</sup> Parts of this section were published in Lekan (2020).

been associated with the failure of digital platforms such as Uber to be financially strong enough as to avoid being seized by big companies (Morozov, 2018).

Another way to increase the success of socially-owned platforms/apps, could concern the creation of an ecosystem of such multiple, localized and interconnected digital technologies so that they could together confront the brutal laws of competition. Despite the obvious challenges, one, however, cannot deny that *'the struggle for different technologies is essential to the struggle for visions of a different society'* (Genovese & Pansera, 2020). As Genovese and Pansera (2020:107) recognized in the context of circular economies by quoting Illich (1973), there is a need for convivial technologies that are user-empowering, offer a space for creativity and help to find *"individual freedom realized in personal interdependence"*.

## 5.4 Circuits of Power and Authority in the Local Development of the CE

The previous subsections of this chapter revealed that SEs contribute to local economic value creation through strategic and often mutually beneficial partnerships with private sector organizations that exhibit varying degrees of power to manipulate transactions and operational processes. This subsection examines the nature of relationships between SEs and public sector organizations, along with the policies and regulations governing such flows and transactions. This is even more important given that the public sector is a major stakeholder driving the concept and practice of the CE (Khan et al., 2020). As Cleaver (2016:17) noted: *"We seem unlikely to transcend politics - understood as the confrontation and negotiation of differences"*. Drawing upon examples from the UK, Chile and Austria, this section thus explores how different institutional contexts, policies and logics (e.g., procedural aspects associated with resource redistribution) may facilitate/constrain the expansion of circuits of value surrounding SEs engaged in circularity.

### 5.4.1 Circular SEs: Autonomous Units or a Form of a Social-welfare Capitalism?

Following Fuller and Jonas (2003), many of the SEs examined in this study can be classified as *alternative-additional* enterprises. Such enterprises are complementary to, and reliant upon, flows and outputs in the mainstream economy. Several charitable SEs that rely on public funds/grants (e.g., from the state-franchised UK's The National Lottery) fall into this category. For example, *heidenspass'* social work aspect and high dependence on public funds (amounting up to almost 70 percent of the enterprise's total financial resources) means that it does, to some extent, complement mainstream social welfare delivery structures, especially those that the Austrian public sector fails to provide. Such high dependence of SEs on funding may, however, constrain their institutional autonomy, and hence capacity to determine their own strategic direction and structure circuits of value accordingly. For instance, interviews



with *heidenspass* staff revealed that public funds have been invested in a top-down pilot sports project that deviates from *heidenspass*'s upcycling mission. The findings also indicated that annual negotiations with public authorities determine *heidenspass*'s availability of funds, and hence its activities:

*“Governmental players are changing so fast and the public funding is always very tricky because it depends on the current political situation. The Austrian political situation is not too good for innovative social projects like heidenspass. It is hard to be true to our concept [i.e., mission] with which we have a very good experience and we know it works”*

(*heidenspass*'s project manager, Interview, November 2019).

Similar concerns were reported by SEs in Hull whereby some SEs tend to adjust their activities to funding requirements, meaning that they may not necessarily be motivated solely by CE considerations when capturing value flows:

*“Certain organizations will seek funding pots thinking ‘what can we do to create a project that will allow us to bring money?’ – which I don’t agree with. What we are doing here at Down to Earth, we are trying to develop ideas based on the community consultation and partnerships, working with other organizations – developing ideas that would benefit the community and then if they are not financially sustainable themselves then we might seek funding to top-up”*

(CEO of Down to Earth, Interview, June 2020).

Nonetheless, public authorities could potentially offer more financial support for certain CE activities once the (in)tangible benefits of any project/service delivery (including long-term savings) are known. For example, in response to the UK Social Value Act, which *“requires public authorities to have regard to economic, social and environmental well-being in connection with public services contracts; and for connected purposes”* (UK Public General Acts, 2021), East Riding of Yorkshire Council and Rose Regeneration developed The Social Value Engine<sup>30</sup> (2021) that enables organisations to calculate and achieve (shared) value outcomes associated with particular services/tendering processes. Crucially, accounting for shared outcomes that span different sectors can make up for increased costs in other parts of the system. Such accounting is, however, challenging because public authorities tend to work

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<sup>30</sup> Social Value Engine is accredited by Social Value UK and incorporating Social Return on Investment principles (SROI) and the 7 Social Value UK principles.

in silos. For example, the representative of The HEY Smile Foundation, which provides training to ex-offenders, noted that:

*“Contract managers and procurement team of East Riding Council agreed to look at quality and cost but the outcome they reported was that savings occur everywhere else in the department but not their department. So how can you encourage them to think differently?”*

(Interview, September 2020).

This example is especially relevant in the context of the CE as some SEs engaged in CE practices may be interested in supporting ex-offenders by offering them work placements (cf. Recycling Unlimited from Hull<sup>31</sup> and Ecocitex from Santiago). An outcome-based approach to funding could also propel public authorities to support those SEs, which offer CE practices that are beneficial for social care and mental health. For example, findings indicate that the East Riding Council is interested in looking into investing in the Voluntary and the Community Social Enterprise (VCSE) sector organizations, which revolve around preventive healthcare measures that enable to reduce admissions to healthcare system, thereby benefiting the economy. For instance, the representative of The HEY Smile Foundation noted that:

*“In investing in Men in Sheds, they [authorities] are not necessarily interested in the circular economy but in the social and wellbeing element of their activities”*

(Interview, September 2020).

While there is a trend among local authorities in Hull to focus on health prevention measures, the findings indicate that social value derived from circular activities such as those promoted by Recycling Unlimited or HWR deserves more recognition. There is also more potential for local authorities in Hull to provide additional support to environmental SEs such as Down to Earth and Rooted in Hull, which generate social value in the form of boosted self-organization among local deprived communities (cf. Blake, 2019) and improved health and mental wellbeing amongst children and young adults. In a similar fashion, the Director of Enviromail noted that procurement teams should be more aware of the extra added value (without the added cost) that is delivered through their work insertion schemes targeting disabled individuals. Nonetheless, supporting such initiatives is contingent upon the financial capacity of procuring actors, including local authorities, which under present conditions of austerity remains greatly limited (cf. 6.3.2).

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<sup>31</sup> Recycling Unlimited used to hire ex-offenders until they demanded remuneration.

The dependence of SEs upon the state confirms a tendency in the literature to depict social economy organizations as a form of ‘social-welfare capitalism’ (Amin et al., 2003). Such a portrayal can, however, conceal environmental, aesthetic, and creative value associated with CE practices. As the CEO of the *heidenspass* mentioned:

*“It is very important for the young people to see that it is not just the money from the government, but it is also the money that they help to make because the product is very cool and interesting. Our clients don’t buy things because we are a social project but because they look nice and have environmental value”*

(Interview, November 2019).

The above statement illustrates that SEs have the potential to increase their financial autonomy if they expand their productive capital (cf. Chapter 7). In line with Anastasiadis and Mayr (2009), it also reveals how SEs tend to struggle to balance their social/environmental mission with efforts to become less financially reliant upon public authorities. Such efforts may usually involve entering into contracts with public authorities, which in turn act as buyers of SEs’ services (cf. social-circular public procurement in 7.3.2i). Interestingly, the director of a waste managing SE in Hull noted that such contracts guarantee payments and that the public authority *“will use you as long as there is a need for you”* (Interview, June 2020). Yet at the same time, the findings reveal that there is seemingly ‘less respect’ for third sector organizations that try to be commercially viable and sustainable when compared to SMEs, which *“are doing a little bit of CSR”* (Interview with a waste managing SE in Hull, June 2020). Third sector enterprises seem to be perceived as less capable, yet they are often competitive service providers when compared to the private sector (e.g., Community RePaint offers collection of reusable paint from private companies at competitive prices – see 7.3.2i; Humber Wood Recycling collects wood waste at competitive prices – see 5.3.2.3).

Some SEs that are actively trying to become independent from local authorities may, instead, become dependent on private companies. An example concerns Rooted in Hull:

*“The [city] council is immaterial in a way. We could survive without the council, but we couldn’t survive without the business (...) Private companies are much more forward thinking. We want to turn it on its head and do it differently. And you will find that around food poverty. The council will have the same discussions as what they did ten years ago. And we have said no it is not for us. Let’s just do something”*

(Representative of Rooted in Hull, Interview, January 2021).

The representative of Rooted in Hull further noted that private sector tends to be more efficient when compared to public authorities:

*“Businesses very much like to deal face-to-face around the telephone and they don’t mess around. This is different to the city council because they will talk about something and then six months later you might hear about it. A company just down the road had been putting solar panels in and they said: ‘look we have got half a dozen panels spare - do you want them?’ And that day I picked them up. So, we have that healthy system with the businesses whereby they will just look after us”*

(Interview, January 2021).

The above statements thus imply how some SEs can be classified as *alternative-substitute* in that they strive to substitute institutions that are not pursuing alternative development pathways as they tend to work in silos.

#### 5.4.2 Localised Demand-side versus Globalised Supply-side Economics: Exploring Pathways for Local Economic Development of the CE

When considering CE local development trajectories, the research findings suggest that it is worthwhile to make a distinction between neoliberal or *supply-side* and *demand-side* local economic development pathways. Neo-liberal or supply-side economics postulate that the cost of goods and services can be lowered, and local economic growth occurs when barriers to free trade are reduced, taxes are lowered and regulations decreased (the event also known as *fiscal conservatism*) (Dwivedi, 2010). Such reasoning is consistent with the notion that local circuits of capital are driven by expansionary, globalized circuits of capital/value. Demand-side economics, on the other hand, postulates that high demand for local products and services is what ultimately drives local economic growth and employment (Kalecki, 1943). Hall (2014:319) used the concept of *localised-demand-side* economic development logics to denote localised *“real dynamics of spatial flows”* - i.e., local circuits of value that constitute 'non-rival' development options in that they are not contingent upon the increasing (hyper)mobility of (globalised) capital and labour. Nonetheless, such local circuits of value are, at least to some extent, dependent on having some population tapping into the mainstream global economy to generate items that are then made available for SEs.

Although a majority of SEs in this study continue to rely upon global supply chains, many strive to nurture and promote localised transactions. In a number of cases, the resultant *local circuits of value* are consistent with a distributive economy as described by Chesterton (1927) and Belloc (1936). In contrast to global capitalism (and socialism), distributism advocates for the advantages of local ownership of productive capita, small-scale businesses and local trade. Similarly to supply-side economics, distributism promotes tax cuts to businesses (instead of consumers) in order to encourage them to invest into local business initiatives. The research suggests such cuts would be a significant incentive for SEs at the early development stages. For

example, one solo trader in Hull admitted that she would need to pay taxes once she earns at least £1000 per month (Interview, August 2020). As the particular legal status of a SE determines tax rates, those SEs that are formally registered as SEs and try to earn a revenue in order to become financially sustainable, do not get as much support as the charitable sector, which may have a well-developed trading arm:

*“SEs do not get breaks on commercial rates and things like that; it could be a multi-million-pound charity and you get free rates, but you could be a small independent social enterprise that does not get a break on commercial rates and things like that”*

(Director of Enviromail (Hull), Interview June 2020).

Although Enviromail is not a typical example of a (neo-)distributive enterprise whereby all workers own (at least to some extent) means of production (unlike Library of Stuff or ROPO Design, for example), findings suggest the need for national authorities to offer SEs lower taxes. This is all the more important given that SEs enable public authorities to reduce costs elsewhere in the system in the long-term. Crucially, taxes and other incentives could potentially help many SEs to confront contested notions of welfare capitalism attached to their practices by reducing their reliance on state subsidies/grants in favour of more self-sufficiency.

Local authorities could also better contribute to building the CE from the bottom-up by encouraging localised transactions. In the UK, local authorities continue to operate around a supply-side local development narrative in which contractual arrangements (e.g., involving waste recycling) often involve external (global) suppliers (cf. Humber Waste Alliance). It is therefore necessary to foster localised-demand-side economic opportunities if local CE development trajectories are to be pursued. As Jonas et al. (2010:197) stated, it is vital to *“rethink conventional approaches to economic development, not least those that have focused relentlessly upon supply-side territorial policies to the exclusion of demand-side considerations”*. In this context, social procurement strategies (see 7.3.2i) as well as awareness raising campaigns (see 7.4.5i) and lobbying (see 7.4.5v) can be crucial. For example, an interview with a local city councillor revealed that:

*“HCC has done a lot of stuff around trying to get people recycle stuff, but we have never really focused upon reducing waste but upon recycling instead. But I think we could think of having a week where we focus upon circularity and promote/make visible local businesses and the third sector”*

(Interview, March 2021).

Such activities are all the more important given that *circular* SEs usually lack marketing capabilities necessary to increase demand for their products/generate more income amidst competition with big brands that offer similar (though often of lower quality) products at lower costs. By relying on SEs to recirculate and extend life cycle of their goods, consumers may, in turn, help to reduce municipal waste management fees. Interestingly, SEs examined in this research reveal that such demand can be sustained by local currencies, which are sometimes described as “*a micro-Keynesian fiscal response aimed at stimulating demand for local goods and services*” (Hall, 2014:320). Local currencies can offset the tendency for leakage outside the local economy by, for example, reducing the tendency for speculation on international currency markets. Crucially, such alternative and complementary local currencies can be leveraged as a tool promoting local CE development (see 7.4.5iv).

## 5.5 Conclusions

By mapping circuits of value (Lee et al., 2004) and outlining a heuristic framework that positions SEs as agents of local development, this chapter offers a unique perspective on the existing economic development discourses and practices surrounding CEs.

Through the lens of circuits of value it has offered a novel heuristic approach for investigating how SEs involved in the CE operate at the nexus of the upper and lower circuits of value, where extra-local and local social relations and transactions conducive to CE intersect. In so doing, it has added to the literature on how collective actions enacted by SEs help to diversify local economic development trajectories (Montgomery et al., 2012). Crucially, it has interrogated the role of the SE in shaping alternative circular narratives and tacit knowledge in its systemic pursuit of beyond-monetary value co-creation with the ‘mainstream’. This chapter also contended that it is through SEs’ multilevel, cross-sectoral and extra-local relations that they have access to resources, capabilities and low-tech tools necessary for extracting value from secondary resources whilst fostering community spirit and creating new, inclusive and (circular) economic opportunities for the vulnerable local subjects (cf. Chapter 6).

Upon untangling circuits of value, I was also able to excavate some key ethical tensions and contradictions in relation to (re)production, (re)circulation, exchange, and consumption of products and services in the CE. I was able to uncover feedback loops associated with circuits of value in the context of case study SEs, and in so doing, I cross-examined the consequences of the circulation and transformation of variegated aspects/conceptions of value in terms of its extraction, expansion, and (re)circulation via (non)market mechanisms and processes. Those mechanisms span coexisting alternative and mainstream spaces of exchange, production, and consumption. The proposed framework has thus addressed a gap in the CE literature by

revealing mechanisms and processes linked to outcomes of value co-creation within multi-stakeholder systems, and the implications of institutional structures for organizations co-creating and circulating value (Kohtamäki & Rajala, 2016).

Crucially, the organizational heterogeneity of SEs is reflected in variegated enterprise structures and ways of generating income. Some SEs such as EMS or Sue Ryder may generate income solely from selling donated items such as food or textile products. In these contexts, profits may be reinvested into social missions not only locally but also nationally and globally through expansionary circuits of capital especially in cases where SEs belong to social franchise networks (i.e., Sue Ryder) (cf. 7.4.2). What these circular SEs have in common though is (re)utilization of 'waste' as a means of providing (use-value) for those in need, be it directly (i.e., in the form of socially necessary resources such as food or clothes), or indirectly (i.e., by using it as an input to produce (luxury) goods/trinkets whilst creating socially necessary, yet inclusive, employment opportunities). It can be also noted that some SEs such as Prana Sopas, Biorigen, Freemet, Súper Justo, Emporio Natural or Soap from the Heart may not necessarily utilize 'waste' (except for returnable packaging), as they offer zero-waste and biodegradable products (e.g., shampoo bars, detergents or food products). In so doing, they generate employment opportunities for themselves and others. Following the research findings, the Table 5.3 below summarizes some of the key types of SEs, namely 'opportunistic', 'hobbyistic', '(social)emergency' and 'subsistence' SEs, which are not mutually exclusive and vary in terms of the motives behind pursuing respective circular activities, target audiences, financial autonomy, regulations and relationships to other sectors.

**Table 5.2 - Typology of social enterprises based on cross-sector research findings**

Type of SE	Opportunistic	Hobbyistic	(Social) emergency	Subsistence
<b>Entrepreneur(s)</b>	recognizes an opportunity (not necessarily social need) and moves quickly to capitalize on it	recognizes an opportunity to generate social/environmental/economic benefits	provides emergency services to those in need (social, psychological)	necessity, survival and maintenance cycle; often lack of trust in state and capitalism; ethnic entrepreneurship; micro-entrepreneur
<b>Target audience</b>	customers willing to pay more for a high quality product; possibly capitalist markets	customers willing to possibly generate for/taviramtaral/ecaomic productnefhigh quality products	improverished; low-income and mentally unwell people; subsistence marketplaces	customers who live in poverty and/or are anti-mainstream
<b>Assets</b>	formal & informal; community-owned assets	formal & informal; local state & community-owned assets	formal & informal; local state & community-owned assets	largely informal; community-owned assets (e.g. natural resources)
<b>Finances</b>	income generated from sales; financial support in early development stages	income generated from sales of basic goods & services; sometimes loans in early development stages; grants and donations	grants and donations; possibly minor income generated from trading activities	income generated from sales of basic goods & services; sometimes loans in early development stages
<b>Relation to mainstream</b>	alternative-additional; variation of a mainstream capitalist enterprise	alternative-additional; alternative-oppositional	alternative-substitute (welfare services)	alternative-additional; alternative-oppositional (to preserve local identity)
<b>Regulatory institutions</b>	subject to regulatory frameworks; predominantly formal	usually self-regulated	subject to regulatory frameworks; formal and semi-formal	usually self-regulated; often informal
<b>Ties to capitalist companies</b>	may rely on their knowledge and support; reliant on donations of capitalist (secondary) goods and byproducts	autonomous but may rely on donations of capitalist (secondary) goods and byproducts	reliant on donations of capitalist (secondary) goods and byproducts	limited or none; autonomous but may rely on donations of capitalist (secondary) goods and byproducts
<b>CE development</b>	CE is not necessarily incidental; capitalizes on CE	CE is not necessarily incidental; capitalizes on CE	CE is largely incidental	CE is largely incidental
<b>Examples</b>	Triciclos; Don Pallets; ROPO Design	Miss Moon Reutilizables; Cat in the Sack	EMS; Enviromail	Eternal Benefits (also social emergency)

Overall, it can be concluded that SE-driven local economic development is little more than the joining of some parts of circuits of value in such a fashion that they enhance local circular economic activity rather than broadly stimulate local economic development. This is because many of SEs' production inputs (especially when they are mainstream waste) embody complex and often exploitative (of labour and nature) social and material conditions of global production. By internalizing wider societal tensions in capitalism, such SEs may, in fact, indirectly and unwittingly help to sustain/perpetuate a range of inequalities and environmental problems while at the same time striving to increase circularity and financial autonomy. The corresponding formation of cross-realm circuits of value thus neither significantly challenges the status quo nor addresses deeper issues that underlie mainstream economic logic, including the problem of overconsumption, demand for cheap products or unequal power relations inherent in variegated ownership structures of assets (e.g., digital technologies). The debate about the social and environmental benefits of the CE can therefore greatly benefit from investigating the contribution of SEs through the lens of diverse economy.



## Chapter 6 – Weaving circular ties: Empowering networks for the socially inclusive development of circular cities<sup>32</sup>

### 6.1 Introduction

Building on some of the insights from Chapter 5, this chapter aims to provide a more comprehensive relational perspective on circular value co-creation by examining social network structures that underpin the local development of the CE in the City of Hull (cf. Matinheikki et al., 2016). In doing so, it uncovers cross-sectoral linkages between SEs and public, private and social sector organizations (including support infrastructure organizations) and examines network characteristics such as heterogeneity and social and spatial positioning of particular organizations, all of which may have substantial implications for the local development trajectories of the CE. In unravelling relational structures, or ‘relational mix’, understood as *“comprising the relationships themselves, understood as patterns of causal interconnection and interdependence among agents and their actions, as well as the positions that they occupy”* (Lopez & Scott, 2000:3), this chapter also identifies institutional conditions and power relations that may likewise enable or impede access to, and exchanges/diffusion of, resources and circular practices within a locally emergent social circular ecosystem (cf. Hansen, 2009). Crucially, by focusing on ‘ego-networks’, i.e., formal and informal ties of each particular enterprise, this chapter explores how such networks could be leveraged, or ‘woven’, in such a fashion that they (further) foster (localised) knowledge spillovers (and other positive/negative externalities) and flows of (in)tangible assets for the local development of the CE. Stated differently, it investigates how SEs could build what Baker (2014) defined as ‘new pipes’ (i.e., connections facilitating or constraining flow of resources/assets and formation of social capital) and use those new or already existing pipes to develop new circular activities or upscale/diffuse already existing circular practices in the city. It suggests how the use of new pipelines (actor-networks) could create novel local impact pathways and social (or community) infrastructure comprising shared values, resources, capabilities, interests, identity and needs in a geographically bounded space.

In examining the broader relational and institutional structures shaping local CE development, this chapter draws upon the Social Network Analysis approach (see 4.7) as well as semi-structured interviews with 31 SEs and 7 support infrastructure organizations (SIOs) spanning the following sectors: food; clothing & other textiles; furniture; arts & crafts; hygiene; electronics; construction/housing; women; disabled; elderly; ethnic minorities; homeless;

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<sup>32</sup> Some parts of this chapter were published in conference proceedings – Lekan et al. (2021b).

prisoners & ex-offenders; vulnerable youth; refugees & asylum seekers; unemployed; alcohol addicts; mentally struggling; and mixed/other sectoral classifications. Informed by systems theory (Jackson, 1991), the focus on networks additionally enables to delineate a systemic perspective, which offers a holistic approach to interactions between actors within the broader social network. By holistically exploring interconnectedness between many sectors, it adopts an ecosystem approach, which enables to identify some of the key actors that (could) facilitate CE transition in the city, and presents SEs and their networks as *circulatory systems* that are embedded within the broader SE landscape. The adopted systems approach is also consistent with the principles of industrial ecology (Jelinski et al., 1992), which in the context of the CE are analogously applied to context of the SE ecosystem under scrutiny. Crucially, the visual representation of networks in a given temporal context is complemented by their geographical representation, which shows the spatial distribution of respective SEs across the City of Hull. This in turn helps to scrutinize the impact of aspects such as geographical proximity on (in)tangible resource flows within the city and, to some extent, the socio-spatial distribution of benefits associated with socio-circular practices.

This chapter is organized around some of the key themes emerging from the analysis of the interviews using network theory. Consistent with the realist method (Sayer, 1992), it starts with an extensive approach to research, which considers broader network characteristics such as network heterogeneity and tie content (6.2). This section is then followed by intensive research that focuses on a number of case study SEs, and more specifically on their social positioning and organizational attributes, in order to explore cause and effect between emerging themes and factors for the CE development (6.3). This chapter subsequently explores the interplay between the spatial positioning of SEs and their characteristics for diffusion of CE thinking and practice across the formed SE ecosystem (6.4). Prior to visually presenting the cause-effect relationships between interdependent variables that underpin SEs' performance and their innovative capacity to foster development of inclusive CE, this chapter also explores how some of the key *network weavers* could foster more synergies for urban circularity by 'plumbing' or 'fortifying' the ecosystem (6.5). This chapter concludes that employment of CE practices can increase the attractiveness of the overall ecosystem to both external and internal stakeholders, and hence influence its heterogeneity, as long as relevant institutional support is in place.

## 6.2 An Overview: Network Heterogeneity and Tie Content

The results of an extensive analysis of CE social networks in Hull are summarised in Figure 6.1 below, which depicts ego-networks of 31 selected SEs, i.e., SEs' multi-layered ties to social, public and private sector organisations (operating between and across different spatial scales<sup>33</sup>), as building blocks of the broader SE ecosystem in Hull in a given temporal context (July 2020-April 2021). Such network visualization is expected to help to better understand how SEs and their multi-level networks operate and serve (interdependently) as conduits for the flow of, and access to, resources and hence power (cf. Buckingham et al., 2018). Figure 6.1 demonstrates the total of 932 identified ties (i.e., connections)<sup>34</sup> of SEs to social, private and public sector organizations<sup>35</sup>, some of which span the city boundaries. In mapping ego-networks of 33 selected SEs it was possible to uncover the interconnectedness of SEs and organizations that can connect disconnected SEs. Based on the legal status of respective organizations, 19 categories of network actors were distinguished, and these range from SEs<sup>36</sup> to community organizations, private companies and local/regional authorities, to name a few (see Legend). Given that most of the SEs in the study are officially registered as charities that have a trading arm and social and/or environmental mission, the 'SE/charity' sub-category was created (n=130). This sub-category also includes charities that do not have any trading arm (i.e., rely on grants only) and were identified by other SEs during the mapping. Crucially, entities under the 'Solo-entrepreneur/sole trader' category are referred to as SEs due to their social and/or environmental mission (e.g., SE 14 – ROPO Design - uses fabric scraps to make bags). Some of the identified SEs also intend to provide support infrastructure to other SEs alongside their individual mission to generate social and environmental benefits (see the fourth category in Legend; n=11). While case study enterprises have numerical values attached, the accompanying Table 6.1 discloses their names.

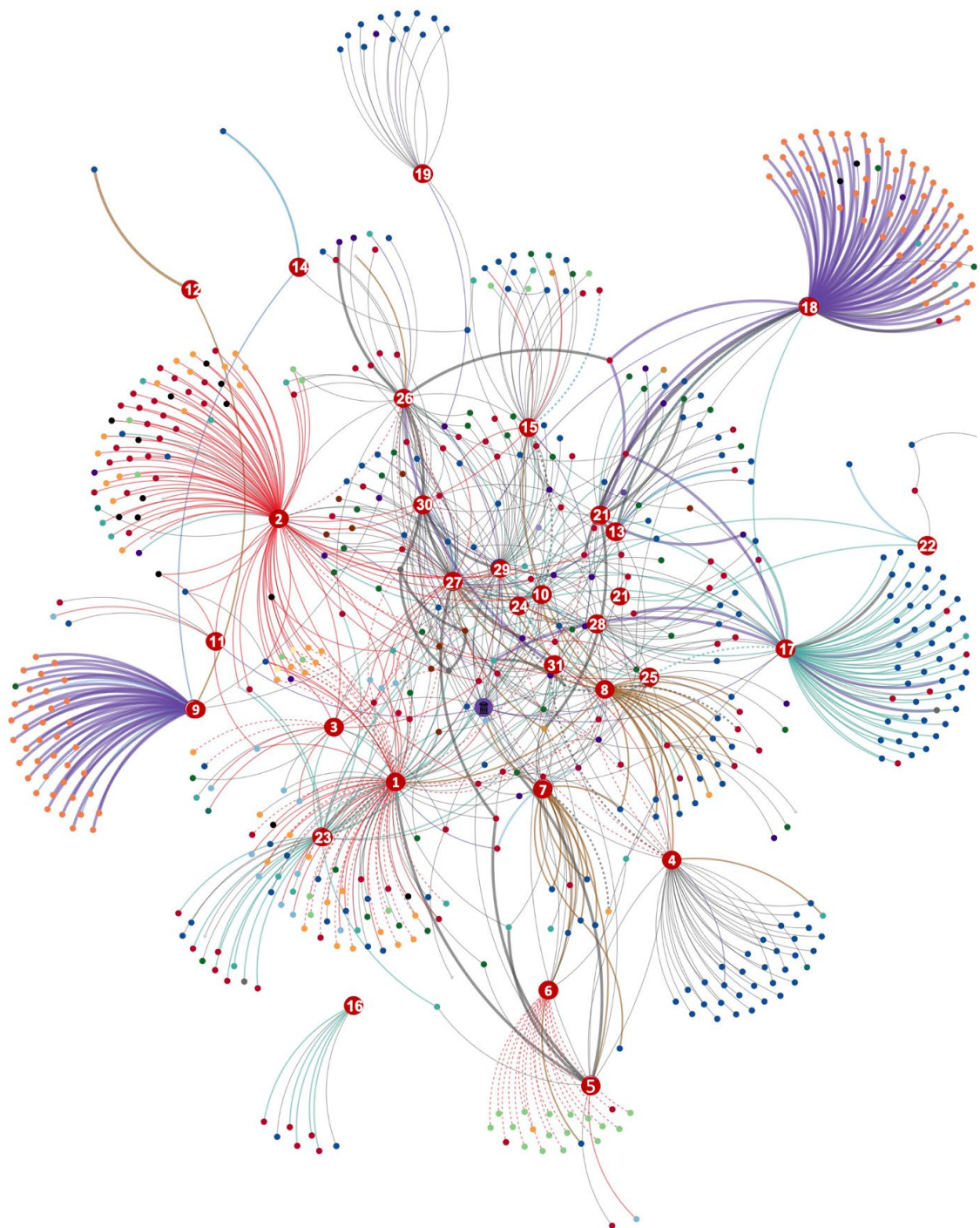
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<sup>33</sup> I.e., local/city-level, regional, national and international.

<sup>34</sup> There are many other ties of SEs that were not specifically identified; e.g. Hull Foodbank maintains ties to 119 organizations that act as referrers of individuals to food bank, yet on irregular, ad hoc basis (Interview with the manager of Hull Foodbank, September 2020).

<sup>35</sup> SEs also maintain many informal networks, which were either assigned to respective sector-specific categories or not mentioned by representatives of SEs at all. This is to imply that there is a diversity of ties.

<sup>36</sup> See the robust typology of SEs developed in Chapter 5 (5.5).



**Figure 6.1 - Social circular enterprise ecosystem in Hull, UK (results from July 2020 – April 2021)**

Note: The numbers indicate SEs participating in the study (see Table 6.1 below for names of, and sectors represented by, enterprises). Dots indicate other organisations ('nodes') that were not part of the study<sup>37</sup>, and which are associated with ego-networks of SEs under study - illustrated as lines ('ties')<sup>38</sup>.

<sup>37</sup> Every node represents a different organization, yet not all the names of organizations were identified due to limited data or confidentiality issues. For example, SE no 26 has over 600 customers who are

The map can be found in an interactive format under the following link: <https://kumu.io/mpusz/social-circular-ecosystem-in-hull-uk> which also discloses some names of other identified organizations ('nodes'). See Table 4.1 to see what type of a registered organizational form is associated with each SE.

### Legend:

- Social enterprise/Charity
- Solo-entrepreneur/ sole trader
- Local maker/artist (that may be a solo-entrepreneur/ sole trader)
- Social enterprise/Charity, which is also a support infrastructure organization
- Support infrastructure organization
- Community organization
- Private company
- Food retailer
- Children's Centre/ Nursery
- Youth Center
- Sports organization
- School/ College
- University
- Farm
- Regional authority
- Local authority
- Public sector organization (e.g. hospital, prison)
- Arts organization
- Religious organization
- Flows of food surplus/waste
- - - Flows of knowledge on food in the CE (e.g. composting workshops)
- Flows of food and space (community fridges)
- Flows of reclaimed wood & upcycled/second-hand furniture
- - - Flows of knowledge on wood/furniture upcycling
- Flows of reclaimed wood/upcycled/second-hand furniture & space
- Flows of second-hand textiles
- - - Flows of knowledge on textiles in the CE
- Flows of second-hand textiles and space
- Flows of mixed materials from above &/or other (e.g. surplus paint)
- - - Flows of knowledge on other surplus/reclaimed materials
- Flows of other reclaimed/second-hand materials and space
- Flows of space (e.g. rental/leasing)
- Potential & potentially existing flows raised above (EXTRA BOLD)

Source of graph: kumu.io

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mainly local businesses in Hull that could not be mapped in their entirety due to confidentiality reasons. The identified nodes may be thus more interconnected.

<sup>38</sup> See legend for guide to the types of organisations and the type of secondary resource or knowledge in the CE being circulated.

**Table 6.1 – An overview of participating case study enterprises in Hull in relation to sectors they represent**

Note: Indicated numbers are correlated to numbers in Figure 6.1.











	Name of a SE	Sector (predominant)	Other sectors represented by a given SE			Symbol on Map 2	
1	EMS, Ltd.	Food (food surplus & growing)	Mentally struggling, prisoners				
2	FareShare Hull & Humber	Food (food surplus)					
3	Hull Foodbank	Food (food surplus)	Clothing & other textiles	Mentally struggling			
4	Rooted in Hull	Food (food growing & composting)	Furniture (reclaimed wood for planters)	Mentally struggling; Ethnic Minorities			
5	Bameen CIC	Food (food growing & food surplus)	Furniture (reclaimed wood for planters)	Ethnic minorities			
6	Down to Earth	Food (food growing & composting)	Furniture (reclaimed wood for planters)	Mentally struggling; Elderly			
7	Recycling Unlimited	Furniture	Arts & Crafts (wooden)	Food (food growing & composting)	Mentally struggling		
8	Humber Wood Recycling (HWR)	Furniture	Arts & Crafts (wooden)	Mentally struggling			
9	Cat in the Sack	Furniture	Arts & Crafts (wooden, textile & other)				
10	Emmaus Hull & East Riding	Furniture	Clothing & other textiles	Food (food surplus)	Homeless; Ex-offenders; Women		
11	Eternal Benefits	Furniture	Clothing & other textiles	Food (food surplus)	Mixed/ Other		
12	Treecycle	Arts & Crafts (wooden)					
13	Life and Loom	Clothing & other textiles	Mentally struggling				
14	ROPO design	Clothing & other textiles					
15	Dove House Hospice & Dove House Trading Limited (owns HWR)	Clothing & other textiles	Furniture & Wooden crafts	Electronics	Prisoners		
16	Sue Ryder	Clothing & other textiles	Furniture & Wooden crafts				
17	ScrapStore Hull	Clothing & other textiles	Arts & Crafts (textile, cardboard & other)	Mixed/Other (paint)	Vulnerable youth; Children		
18	Traenerhus	Arts & Crafts (textile, cardboard & other)	Hygiene	Women			
19	Soap from the Heart	Hygiene	Children				
20	Library of Stuff CIC	Electronics	Mixed/ Other				
21	MakerspaceHull	Electronics	Mixed/ Other	Vulnerable youth; Refugees; Elderly; Ex-offenders			
22	Community Re-paint Hull & Humber	Mixed/ Other	Construction/ Housing				
23	Droppoint CIC	Mixed/ Other				VIRTUAL	
24	Enviromail	Mixed/ Other	Arts & Crafts (cardboard)	Disabled			
25	Unity in Community	Construction/ Housing	Food (food surplus)	(Vulnerable) youth; Refugees and asylum seekers; Unemployed			
26	Goodwin Trust	Construction/ Housing	Food (food surplus)				
27	Giroscope	Construction/ Housing	Food (food surplus & growing)	(Vulnerable) youth; Refugees and asylum seekers; Alcohol addicts; Homeless			
28	Probe, Ltd.	Construction/ Housing	Vulnerable youth; Women				
29	Winner, Ltd. (Purple House)	Construction/ Housing (for women)	Women; Prisoners and ex-offenders; Refugees and asylum seekers	Hygiene	Clothing & other textiles	Arts & Crafts (mixed)	
30	Matthew's Hub	Disabled (autism)	Arts & Crafts (mixed)	Prisoners			
31	Age Hull UK	Elderly	Arts & Crafts (mixed)				

Figure 6.1 further identifies some of the cross-sectoral flows of secondary material resources (e.g., surplus wood/food/space) and knowledges associated with CE practices that may involve the use of secondary materials (e.g., planters made from reclaimed wood for composting workshops) (see Legend). Non-highlighted flows of other resources that indirectly stimulate resource recirculation concern financial flows (many of which underpin material flows), referrals<sup>39</sup> and reputation, or knowledge, which is vital to the functioning of a given SE. The summary of all these flows of tangible and intangible resources which influence, to varying degrees, network structure (and hence opportunities for scaling of the CE across the city), are outlined in Table 6.2 below. These flows may be either unilateral or bilateral whereby the former ones tend to explicitly benefit/reward only one party, e.g., in case of ‘sponsorship-based linkages’. However, even such unilateral ties may render benefits, though not necessarily explicit. For example, a grant-giving enterprise makes income and offers employment opportunities by acting as a support infrastructure organization that sources funds from the outside.

**Table 6.2 - A typology of cross-sectoral collaborations versus resource flows associated with SEs in Hull, UK**

<b>Sector</b>	<b>Sector-specific types of organization</b>	<b>Tie content: type of resource/asset being transferred and/or exchanged</b>	<b>Nature of ties<sup>40</sup></b>	<b>Primary motivation behind each tie (SE vs. sector)/ Key expected value outcome</b>
<b>Social</b>	SEs and community organizations (SECO)	Knowledge & advice (e.g., on how to set up a charity shop; this also implies gifting time)	Non-market & (optionally) Relational	<b>SE &amp; SECO:</b> Need for knowledge/advice; desire to maintain good relations & support community

<sup>39</sup> The mapped ‘referral ties’ are rather temporal and irregular, and difficult to map (for example, Hull Foodbank has approximately 120 referral ties that were impossible to map). Very often referral ties occur altogether with circulation of material resources.

<sup>40</sup> Given the multitude of different ties, the interviews did not always reveal to what extent resource exchanges were reciprocal/bilateral or at least obliged receiving actors to reciprocate at some point in time.

	Promotion/brand	Non-market & Reputational & (optionally) Relational	<b>SE &amp; SECO:</b> Need for promotion; desire to maintain good relations & support community
	Referrals (e.g., to mental health charities)	Informational & (optionally) Relational	<b>SE &amp; SECO:</b> Desire to maintain good relations & support community/promote community well-being
	Secondary materials (e.g., furniture/textiles/ refurbished electronics)	Voluntary (exchange/donation)/transactional & (optionally) Relational	<b>SE &amp; SECO:</b> Cheap/free materials
	Buildings	Transactional	<b>SE:</b> low-cost rent  <b>SECO:</b> income/ lower costs (shared overhead costs)
	Employees/Volunteers	Non-market	<b>SE:</b> reputation (for doing good)  <b>SECO:</b> social integration; environmental awareness
	Trading space (e.g., a shelf for products)	Transactional	<b>SE &amp; SECO:</b> space for sales/support & income from commissioning fees
	Pre-paid vouchers for community	Philanthropic	<b>SE:</b> offer support for communities
	Services	Transactional/ Philanthropic	<b>SE:</b> income from (potentially subsidized) workshops (e.g. for children) & desire to support community/improve community well-being  <b>SECO:</b> free/paid workshops
	Finances	Funding	<b>SE &amp; SECO:</b> support (e.g., joint fundraising)
Support	Knowledge & advice	Non-market	<b>SE:</b> support



	Infrastructure Organizations (incl. philanthropy)	Promotion/brand	Reputational	<b>SE:</b> recognition	
		Referrals	Reputational	<b>SE:</b> support	
		Financial resources	Funding	<b>SE:</b> support	
<b>Private</b>	Private company (incl. construction companies)	New and secondary materials (construction materials, paint, woods/pellets)	Transactional/ Philanthropic	<b>SE:</b> cheap/free materials;  <b>PS:</b> lowered waste management fees; enhanced CSR	
		Knowledge & advice	Non-market	<b>SE:</b> support  <b>PS:</b> reputation	
		Land and buildings	Philanthropic & Reputational	<b>SE:</b> low-cost rent  <b>PS:</b> reputation	
		Corporate fundraising & sponsorship (incl. vouchers to purchase second-hand goods)	Philanthropic & Financial & Reputational	<b>SE:</b> financial support  <b>PS:</b> reputation	
		Labour (exchange) & corporate volunteers	Philanthropic & Reputational	<b>SE:</b> support  <b>PS:</b> reputation	
		Promotion/brand	Reputational	<b>SE &amp; PS:</b> recognition	
		Food surplus	Philanthropic	<b>SE:</b> cheap resources for redistribution	
		Food retailers	Promotion/brand	Reputational	<b>SE &amp; PS:</b> recognition
	Food produce		Transactional	<b>SE:</b> income from commissioning  <b>PS:</b> space for sales	
	Farms	Land and buildings	Transactional	<b>SE:</b> cheap rent; good location	
		Local authorities	Financial resources	Funding	<b>SE:</b> financial support
			Knowledge & advice	Non-market	<b>SE:</b> support
			Services	Transactional	<b>SE:</b> income  <b>PS:</b> service provision
Secondary materials (e.g., IT equipment)			Non-market	<b>SE:</b> free resources  <b>PS:</b> reputation	
Financial resources			Financial	<b>SE:</b> financial support	

<b>Public</b> <sup>41</sup>	Regional authorities	Secondary materials (e.g., furniture, pellets, textiles)  Locally grown food (e.g., by prisoners)  Referrals (social and green prescribing)	Transactional/ Non-market	<b>SE:</b> cheap/free resources; environmental benefits; items for sale/ more beneficiaries (via social/green prescribing referrals)  <b>PS:</b> environmental awareness
	Public sector organizations (e.g., university, hospital, prison)	Employees/Volunteers (e.g., prisoners; ex-offenders)	Non-market	<b>SE:</b> reputation (for doing good); more inputs for sale or offering (free of charge)  <b>PS:</b> social integration; environmental awareness; reputation
	Public sector organizations (e.g., prison)	Knowledge & advice  Service	Non-market  Market	<b>SE &amp; PS:</b> knowledge exchange and co-production  Recycling service
	Universities	Knowledge-based service	Transactional/ Philanthropic	<b>SE:</b> income from workshops & desire to provide community support  <b>PS:</b> free/paid cooking sessions
	Schools and colleges	Food surplus	Philanthropic / Transactional	<b>SE:</b> procurement & redistribution of food surplus as part of its mission  <b>PS:</b> monetary donations/payment for food parcels for their beneficiaries

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<sup>41</sup> Given that there is limited data as to whether the nodes representing children's centres and nurseries (8), and schools and colleges (10) refer to private or public organizations, the table provides an additional 'private/public' rubric.

<b>Private/ Public</b>		Knowledge-based service	Transactional/ Philanthropic	<b>SE:</b> income from workshops & desire to provide community support  <b>PS:</b> free/paid cooking sessions
	Children's centres and nurseries	Food surplus	Philanthropic / Transactional (service provision)	<b>SE:</b> procurement & redistribution of food surplus as part of its mission  <b>PS:</b> monetary donations/payment for food parcels for their beneficiaries

Apart from the cross-sectoral interlinkages indicated in Table 6.2 above, there is also a number of *sub-sectoral classifications*, aka clusters, (i.e., food; clothing & other textiles; furniture; arts & crafts; hygiene; electronics; construction/housing; women; disabled; elderly; ethnic minorities; homeless; prisoners & ex-offenders; vulnerable youth; refugees & asylum seekers; unemployed; alcohol addicts; mentally struggling; and mixed/other), which are likewise interlinked, yet also impact the development of socially inclusive CE in the city (see Table 6.1). The most prominent types of *sub-sectoral classifications* concern the linkages of SEs to organizations in the children's sector (i.e., children's education), mental health sector and prison. For example, KIDS - a charity providing support for disabled children - welcomes workshops from SEs such as ScrapStore Hull (no 17) that use second-hand materials. KIDS also hosts workshops run by the charity for autistic people – Matthew's Hub (no 30). While Matthew's Hub workshops do not necessarily involve circular practices such as upcycling, its representative expressed interest in employing CE practices as part of its workshops across the city. Moreover, Enviromail occasionally donates recyclables such as cardboards to organizations working with disabled people or community centres in order to aid their crafting activities. Interestingly, once children have transformed cardboards into toys, the SE takes their cardboard away for processing.

Some SEs engaged in wood upcycling such as Recycling Unlimited (no 7) or Humber Wood Recycling (HWR) (no 8) also provide mental health support through their inclusive projects and benefit from referrals of vulnerable individuals from charities such as MIND (and vice versa). There is also a potential among medical practitioners to prescribe activities such as community woodworking or gardening as part of (*green*) *social prescribing schemes* (cf. VCSE, 2021). Nonetheless, findings reveal that this is less common as medics may be not necessarily aware

of appropriate initiatives taking place in the City; they are, instead, more likely to only hand a patient a leaflet, yet that patient may be too shy or unwell to join advertised activities. One SE representative noted that he ceased to collaborate with referral organizations, such as Connect Well, as he found their approach to volunteers struggling with mental health issues to be overly clinical:

*“They wanted to monitor every person and treat them a bit like a guinea pig. You just want to come here and relax and don’t feel as if you are being watched and monitored. That is part of the beauty about coming here. In treating everybody just the same and allowing them to be themselves, they gradually start feeling better. We don’t ask them to fill a form to report on their mental health on a given day. It is demoralising”*

(Representative of Rooted in Hull, Interview, January 2021).

Findings suggest that SEs often struggle to cope with the rising demand for mental health services especially during pandemics. This potentially opens up a window of opportunity to capitalize on existing community assets in order to run more of such ‘healing’ circular initiatives that could be organized in collaboration with local artists and nonconventional entrepreneurs (see extra bold ties in Figure 6.1). It further demonstrates how unrestricted flow and exchange of materials and information can stimulate combinations of ‘healing resources’, which can produce, in a synergistic manner, effects far beyond what is possible from the constituent separate parts. For example, there may be a potential to foster greater interlinkages between health services and environmental/CE practices (e.g., wood recycling), whilst broadening the scope of sectors covered by social/circular procurement when developing a Social Value Measurement Framework – a process attempted by the North Bank Forum - a SIO aiming to develop such a framework for use by all public service commissioners and VCSE sector organizations in Hull, particularly those providing health and social care services (e.g., NHS Hull Clinical Commissioning Group) (see 7.4.5v). On the other hand, although HCC has started to introduce social value criteria into their procurement/commissioning processes, it does not have neither any specific social value policy/CE agenda nor financial means to do so. In any case, the viability of implementing ‘healing’ circular initiatives is contingent on financial support from external institutions due to limited financial capacity of SEs/SIOs and associated staff shortages.

Another locally emergent or ‘hidden’ aspect of the CE in Hull, concerns collaboration with social services such as the prison service. For example, Dove House (no 15), which forms a formal merger with HWR (no 7), runs furniture upcycling activities in a local prison after the prison staff was inspired by some of the HWR’s workshops and expressed interest in

collaboration. Since Dove House is open to new collaborations, it positively responded to the prison's proposal, especially given that the upcycled furniture is sold in their charity shops, meaning that profits from sales can be reinvested into Dove House's and HWR's missions. Another similar SE, Recycling Unlimited, used to work with former prisoners, yet such collaboration was unsuccessful as some of them left due to the lack of remuneration.

From a network dynamic perspective, the frequency of the content being transferred and/or exchanged is organization-specific, depending on organizational mission or managerial and operational capacity (e.g., some organizations whose mission is to provide food aid to those in need are going to have frequent interactions with food retailers). Crucially, the high volume of surplus or second-hand materials from private companies (e.g., textiles, wood/pellets, food) surpasses the capacity of SEs to reprocess it. This only highlights the scale of the waste problem in the economic system and limited capacity of SEs to expand operations in order to reutilize resources more efficiently and in a socially inclusive circular fashion (cf. 5.3.1).

Overall, recognizing cross-cluster/cross-sectoral collaborative relations and synergies is important when designing CE strategies that involve grassroots community mobilization. Studying such relations can also help to reveal how power penetrates the capillaries of emergent communities of practice forming around SEs, and which have implications on the social positioning of SEs, ultimately impacting adoption of CE principles. Nonetheless, one of the limitations of such whole-system analysis that merges ego-networks of various SEs is the fact that the painted picture of the broader ecosystem is rather incomplete. Stated differently, the social network mapping analysis adopted in this study does not encompass its 'sub-environment', which may include some innovation communities and many other potentially vital organizations that could contribute to the development of the CE. While SEs' ego-networks occur at multiple levels (i.e., local, regional, national and international), it is also important to better scrutinize meso-level and macro-level perspectives/organizations whereby entities at the meso-level (i.e., regional and national) connect those at the micro-level (i.e., city and community-based) and macro-level (i.e., international) (Xu et al., 2020). In order to help SEs in Hull to foster more circularity, this research ascribes names of respective SEs to those with which collaborative ties could be forged (see the last column in table in Appendix 3).

### **6.3 Zooming in: Social Positioning and Organizational Attributes versus CE Development**

This research is based on the premise that social positioning, understood as occupying an advantageous/influential or disadvantageous position in a network is linked to, and influenced by, organizational attributes (i.e., non-structural properties) such as organizational mission,

age and (relational) capabilities, which in turn may impact the adoption and diffusion of CE thinking and practice. Crucially, social positioning can be manifested in: (1) SEs experiencing social proximity or disproximity in terms of having weak or strong (trust-based) ties to respective (and reputable) organizations (aka relational positioning); (2) competitive advantage over other SEs or lack thereof (this may include financial autonomy, higher purchasing power when compared to other entities, as well as ability to negotiate power relations and dependencies). Depending on the adopted perspective, social proximity can be also viewed as a competitive advantage aka ‘power over’, which may involve disempowerment of certain actors (cf. Pansardi & Bindi, 2021) in that strong, trust-based ties, which are underpinned by shared beliefs, may be conducive to collaborative relations for the CE development.

### 6.3.1 Social Positioning versus Organizational Mission

Consistent with Aldrich and Zimmer (1985), Borgatti and Everett (1992) or Burton et al. (2010), research findings reveal that occupying an advantageous social position in terms of possessing ties to actors located in higher positions can provide access to valuable social resources, which may impact the way SEs realize their missions and promote circularity, the latter being greatly overlooked among case study SEs. The motivations driving SEs to enter into partnerships and associated resource flows are, in fact, rarely purely environmental. Some SEs that are directly engaged in circular activities do not even strive to promote their environmental credentials. For example, the representative of a SE engaged in upcycling of reclaimed wooden pallets noted that:

*“We don’t actively highlight [the] environmental side. If it is noticed – fine. We are here to help people with mental health issues. I know we could do a lot, but we do struggle for time and volunteers to work other than woodworking, for example, marketing, which is lacking”*

(Interview, July 2020).

In contrast, another SE - HWR (no 8) - which is likewise committed to upcycling reclaimed wooden pallets, is committed to promoting its environmental mission, for example by providing its volunteers/trainees with a training course that includes environmental module on issues such as carbon-based energy resources. This is because HWR seems to be better socially positioned in that it has entered into a quasi-merger (joint venture) with a well-established charity in the city – Dove House (no 15) (see 7.4.3). As the representative of Dove House noted:

*“it [HWR] has got to be self-sustaining but they do benefit from our HR, our finance, our support services, our brand and it has got its own brand which it trades under, but it is connected to us”*

(Interview, August 2020).

While such joint ventures provide access to complementary resources (thus exemplifying ‘power with’ - cf. Pansardi and Bindi, 2021), it can be, however, argued that SEs like HWR to some extent chose to trade their autonomy for improved financial sustainability, which is reflected in less external grant seeking. The latter case thus exemplifies how some organisations like Dove House have exercised ‘power over’ others (e.g., HWR). Linked to this, power dynamics underpinning (collaborative) interactions between different organizations are shaped by variegated degrees of trust between interacting parties, as well as *perceived* ‘social positioning’ of a potential partner. For example, while TimeBank Hull & East Riding wanted to provide a local entrepreneur interested in running a repair café in his premises (i.e., café shop) with tools and contacts (to local menders) in order to let repair café happen in the City, the owner declined the offer. Arguably, the owner did not perceive the resources and advantageous position of TimeBank Hull & East Riding as beneficial. His reluctance to collaborate could be also the result of low trust and fear of his idea being developed by another organization. In a similar vein, the CEO of one food sector SE was rather reluctant to collaborate with a SE that has a similar mission to his (i.e., fighting food insecurity) due to questionable food waste management practices being performed by the latter SE (among other factors). The above examples thus showcase that successful collaboration is not always determined by the possibility to access complementary resources, but by the willingness of entrepreneurs to interact with others in order to use them, and which may be impacted by a range of factors, including trust between organizations.

Findings also reveal that unexpected external shocks such as COVID-19 and resultant socio-economic disruptions raise demands for certain products and services (e.g., mental health services or food aid), which may be delivered by SEs with aligned missions. Linked to this, it can be argued that certain SEs, such as Recycling Unlimited (no 7) – a SE whose core mission is helping those who struggle with mental health issues – is better socially positioned during such crises. Nonetheless, the relatively limited marketing and relational capacity of the SE has prevented it from addressing increased demand for mental health services. On the other hand, SEs such as EMS, involved in tackling food poverty in the city, have received a lot of attention from private sector organizations that provided additional food surplus for redistribution amidst the food crisis. As a result, EMS’s social positioning within the broader SE landscape in the city was improved as it forged many beneficial ties with other organizations. Regardless of

external circumstances and contingencies, the social positioning of SEs may be also improved in case respective SEs connect with other SEs nation-wide or internationally. For example, the CEO of BAMEEN CIC has been exchanging ideas with a similarly oriented SE in Bristol, which *“is far ahead when it comes to such issues and we can still tap a lot from them”* (CEO of BAMEEN CIC, Interview, March 2021). Such connections may in turn enhance SEs’ missions.

Overall, this subsection revealed that untangling and understanding power dynamics, which are inherent in SEs’ social positioning and are associated with their capacities to pursue their missions, is important when considering different scaling strategies for more circularity (cf. Chapter 7). The next section considers how SEs’ dependency on external funding, and hence disadvantaged social positioning, may impact their missions.

### 6.3.2 Wolves in Sheep’s Clothing? Social Positioning versus Competition

***“The third sector is more cutthroat and often more competitive than the commercial sector. In terms of survival it could be argued that the majority of us are wolves in sheep’s clothing”***

(Interview with waste sector SE in Hull, June 2020)

Competition for support funding is one of the key reasons behind reluctance among SEs to collaborate with one another. The vast majority of the interviewees mentioned that there is a lot of competition for funding meaning that many SEs are facing financial uncertainty. For example, the CEO of Traenerhus, a SE involved in arts & crafts, noted that:

*“Locally, the infrastructure is very disjointed and I think they [SEs] would rather have us competing for funding with each other than bringing us together to work together”*

(Interview, September 2020).

In a similar fashion, the representative of a charity sector SE in Hull stated that:

*“There are a lot of homeless services, but we compete with other charities for donations, sales, business sponsorship donations, gifts and time”*

(Interview, June 2020).



Such competitive behaviours have implications for lower levels of trust among SEs/charities who may fear having their practices copied. Once again, findings reveal that some of the more established SEs/charities that have a skilled management staff and/or own many assets tend to be better in writing successful grant funding bids<sup>42</sup> or have interactive ties to private sector organizations offering corporate sponsorship. This is, however, not always the case because depending on the funding pots, more established SEs *“may become less attractive to some funders”* (Interview with a SE representing the housing sector June 2020). This is because some funders may become more interested in supported new ventures. Notwithstanding, those SEs that do not seem to experience any significant growth and remain financially precarious over long periods of time tend to have difficulties in getting funding. As the CEO of a small and financially struggling charity SE in East Hull noted:

*“Getting volunteers who can write funding bids is very difficult and I don’t have time. And no matter how much training I have had, I still cannot convince a funder to give me money and I have been writing bids for 40 years”*

(Charity sector SE in Hull, Interview, August 2020).

Interestingly, the same CEO noted that they are being contacted for advice by a neighbouring and well-established SE (with which they have always wanted to collaborate) as long as that other SE seeks advice:

*“We are more relational-based, and they are skills-based, doing a lot of training. They were recently applying for some money for some youth work, but they’ve never done any youth work. Since we’ve done youth work for thirty years, they asked us: ‘what would you put in this bid?’ ”*

(Charity sector SE in Hull, Interview, July 2020).

The above statement reveals how opportunistic behaviour among SEs may underpin collaborative links.

SE size is a further factor shaping competitive behaviour. On the one hand, large, well-established SEs tend to contribute to power asymmetries within the network whereby smaller and recently established SEs are placed at a competitive disadvantage relative to larger and more established SEs due to their limited experience and capacities to expand. A local authority noted that there is a need to rebalance redistribution of money among SEs as there

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<sup>42</sup> SEs that own many assets are more likely to win bids because such asset ownership can boost their credibility – see 7.3.1.

always seem to be enterprises (located in different parts of the city) that receive funding (Interview, July 2020). Linked to this, a representative of the HEY Smile Foundation noted that there may be an opportunity to ensure that more successful charities are able to put in a bid/a margin to a lottery as part of their bulk contribution in support of less successful charities facing liability of newness and smallness. He further noted that there are, in fact, grant makers who would like to support all charities, yet they don't have enough resources to achieve that (Interview, September 2020).

On the other hand, there are several occasions whereby SEs join forces to co-write bids for, or propose, specific joint projects. In the literature, this can be referred to as a 'choice homophily' whereby SEs, which are usually homophilous (i.e., similar) by organizational age and mission/aspirations, choose to work with one another, and in so doing they may (1) develop strong relationships underpinned by trust (Kleinbaum et al., 2013), and (2) improve absorptive capacity to better diffuse any relevant knowledge (Fredrich et al., 2019). Under such circumstances some less experienced SEs may join more established ones. In addition to exchanging knowledge and skills, such partnerships may also potentially help to win higher bids, and hence result in better outcomes for the population SEs are trying to support, because:

*"Funders, particularly the Lottery, are now encouraging applications to come forward and say 'you can apply for more if there is a partnership structure in place'"*

(Head of Community Development at The HEY Smile Foundation, Interview, September 2020).

While many SEs used to be subject to *"survive or flight sort of environment"* (Head of Community Development at The HEY Smile Foundation, Interview, September 2020), such new funding requirements coupled with declining funds from the government have only further propelled SEs to build more on their strengths and work in partnerships – two aspects that ultimately improve their social positioning. Crucially, this is where support infrastructure organizations such as The Vault, which is run by The HEY Smile Foundation, help SEs to capitalize on each other's strengths by facilitating access to shared equipment and space whilst fostering collaborative learning. Notwithstanding, building strong partnerships requires rather informal/personal relationships and extensive coordination efforts between respective representatives of SEs, and hence something that many SEs simply cannot afford, paradoxically without external funding.

Another challenge concerns the fact that while there is a diversity of funding bodies at the national level, SEs that rely heavily upon grants tend to apply to the same pots of money, often

through (not very diverse and plentiful) SIOs at the local level, and which likewise rely upon, and compete for, time-bound contracts to support third sector (e.g., Humber Learning Consortium, Hull CVS, or North Bank Forum). Moreover, funders usually require a clearly defined set of short-term outcomes, which poses difficulties to some organizations seeking funding. For example, a representative of one SIO noted that:

*“We need to find a way of telling a different story, but it is difficult because people are thinking that you are mad. When we write bids we don’t succeed because we perhaps talk systemically rather than specifically – people don’t see it because we talk about the whole system and structural change. If you are short-term, you can experience a mission drift”*

(Interview, October 2019).

Some larger SEs in Hull, such as Goodwin Trust, or those belonging to a national set-up (e.g., Age Hull UK) are additionally perceived by some SEs as having more money, albeit most if not all SEs struggle to cover outlays and many do not have significant reserves to cover funding deficits. The representative of a large community development SE in Hull noted that:

*“We don’t make any money. We don’t invest in anything. We struggle to break even. We have assets so we have a balance sheet, but we don’t have any cash”*

(Interview, April 2021).

In addition, local authorities determine which sectors are prioritized for funding each year. As representative of one SE representing wood sector in Hull noted:

*“The year before that or for a couple of years it was about the homeless, there was a year when it was all about people with PTSD, the military, before that it was immigrants and then before that it was the unemployed”*

(Interview, July 2020).

This has implications for those SEs that are willing to deliver those projects and activities and that could enable them to obtain funds whilst possibly drifting from their original mission. For example, Remploy – a charity originally offering support for disabled individuals – became a generic employment provider for vulnerable young individuals after the funding for disabled people ceased to exist. This implies that in adjusting their activities to funders’ requirements, SEs, which heavily rely on external grants, may not necessarily choose to pursue inclusive CE activities. On top of that, time-bound nature of funding may only further prevent many CE-related projects from developing over time. As the CEO of BAMEEN CIC noted:

*“We gave training on behalf of the project on aquaponics that received 1- year [community grant] funding via the Humber Learning Consortium. After we started building the project, we were unable to continue it. The way the funding is going is not even helping to sustain the economy”*

(Interview, April 2021).

A majority of interviewees additionally highlighted that local authorities have limited financial capabilities and pots are becoming smaller, especially since the onset of austerity measures in the 2010s (Rex & Campbell, 2021) and in the case of European Social Funding due to Brexit and also due to crises such as COVID-19, when the UK government offered emergency funds to SEs on a selective basis.

As a result, some SEs and SIOs in Hull have to tap into other sources, including those outside the City of Hull (e.g., National Lottery Community Fund). It could be also noted that the insular/peripheral positioning of the City of Hull (i.e., outside the main transportation routes) and its less developed infrastructure when compared to other cities in the region additionally prompt some local actors to seek external support. From the broader network perspective, such links to organizations outside the city boundaries arguably mitigate the occurrence of the so-called ‘over-embeddedness’, i.e., circumstances whereby SEs are ‘trapped-in-their-own-net’, that could prevent them from pursuing certain activities, thus impeding growth (Uzzi, 1997).

As the representative of The HEY Smile Foundation noted:

*“Unfortunately there isn’t any investment infrastructure in Hull. We are in a fortunate position in that we get core funding from East Riding and Yorkshire Council. We help individuals by putting their business ideas under the VCSE development contract – it is an output we get paid to deliver. In Hull you have got different types of projects being offered but they are not working together. You have to be a certain age, have certain set of skills and live in a specific geographical area. You have to wonder where you fit. So there needs to be that collaborative work offering these different services that are all signposting and using each other’s resources”*

(Interview, September 2020).

Since many SIOs help to redistribute funding by signposting organizations to certain funding bodies and channelling the funding sourced from regional authorities to specific enterprises, it could be argued that they, to some extent, hold the power to encourage funders to ensure (and ensure by themselves) that funding is prioritised for SEs engaged in socially-inclusive CE practices that are socially inclusive and/or are for the socially excluded.

Overall, this subsection implies the importance of funding capacity-building schemes which enable SEs to diversify their income streams so that they can become more financially autonomous and increase their chances of successfully scaling and/or adopting circular practices in dynamic environments. Linked to this, funders should recognize social, environmental and economic values associated with CE practices and subsequently demand/incentivize SEs to demonstrate circularity (see also 8.4.3).

### 6.3.3 Social Positioning versus Relational Capabilities, Reputation and Organizational Antecedents

The findings above reveal that in order to stimulate the development of an inclusive CE, SEs often need to have appropriate relational capabilities and invest time and resources into forging and maintaining cross-sectoral connections. However, this is less the case for SEs that already have nurtured a good reputation over time (e.g., EMS – no 1, Enviromail – no 24 or Dove House – no 15) or have established connections to well-known brands. For example, Dove House’s good reputation (strong local brand) have enabled it to attract two partners:

*“We didn’t seek Humber Wood, but it was a great opportunity that came along. The same with the prison. It is like they’ve come at good times, but I wish we could say that we sought them”*

(Representative of Dove House, Interview, August 2021).

Such circumstances are in line with the research distinguishing the variation process (embodied in the population perspective) according to which some entrepreneurs act once they accidentally stumble onto opportunities and resources (Aldrich et al., 1984; see 3.3.6.4). By specifically referring to connections of SEs to large, established private corporations, such connections may entail contested socio-ethical and environmental implications, such as those reflected in corporate greenwashing (see 5.3.2.3i), which in turn can damage SEs’ reputation and need to be considered when seeking to maximize impacts through expansion of connections.

Another set of ties that can help to build good reputation concerns strong ties to family members and friends who can spread the word of mouth in their own circles. In line with Chapter 5, whether positioning of SEs is advantageous in relation to other (local social) actors or not also depends on the procedural aspects underlying transactions/relations between them. For example, the vast majority of transfers of secondary materials (e.g., food/wood surplus) from private companies to social sector organizations is underpinned by informal agreements, which may invoke trust. Stated differently, in case such agreements are facilitated by strong ties, the quality and cost of procured materials may be positively impacted (see

5.3.2.3). Consistent with Hoang and Antoncic (2003), such agreements thus exemplify how social capital may act as a governance mechanism that creates cost advantage. For example, the representative of a wood upcycling SE in Hull noted that:

*“One of our volunteers is a director at a company that gives us pellets so they are quite useful. We sometimes get end of product stuff and things that we can sell”*

(Interview, July 2020).

Under such circumstances inter-organizational networks can be considered as *“a third way of organizing business, which is neither by markets nor by hierarchies”* (Lechner et al., 2006:517). In a similar fashion, the CEO of Eternal Benefits - a charity SE in North-West Hull, noted that the strength of his enterprise lies in developing informal relationships with volunteers and supportive private companies. Nonetheless, given that it takes a lot of time to build functional relationships underpinned by trust, the presence/absence/degree of trust between actors may thus indirectly impact scalability of SEs and hence CE practices, especially as far as procurement of necessary resources is concerned.

Organizational antecedents may likewise impact organizational reputation, and hence formation of impactful ties. For example, SEs that emerge from the ‘bottom-up’ and build trust with potential collaborators and the local community from the very beginning of their existence tend to induce more trust and desire to collaborate with in the local community than those that have ‘top-down’ origins (e.g., those funded by the public sector, which is often perceived as ‘incumbent’). For example, the representative of a community-oriented SE that received endowment from the HCC<sup>43</sup> noted that local organizations and community groups in the area *“felt as if we [that SE] were looking to swallow them up”* (Interview, October 2020). Compared to inflexible top-down organizations, bottom-up organizations have the advantage of being able to capitalize on local knowledge and to recognize the needs of local people, and hence to come up with better solutions to local challenges (Seyfang, 2009). For example, the CEO of a charity sector SE (working with furniture and textiles) noted that:

*“From observing other [third sector] organisations in Hull, sometimes they are too top heavy, too professional where you could pay £30,000 for one manager only. They do not really seem to do an awful lot on the ground. We do an awful lot on the ground, but we are nowhere near top heavy. If anything we are top weak. So it’s a very fine line whether you employ people to be managers that are not really*

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<sup>43</sup> This SE is, in fact, a hybrid enterprise whereby formal planning and informal citizen participation intersect (Jarvis, 2018).

*part of the community and just treat it as a job. I am the founder and manager. People who come here are not clients but my friends. And I live here. You will find that very rarely in an organisation. It's that level of commitment here that makes this work"*

(Interview, July 2020).

It is, however, also important to note that in addition to such localized approaches to problems, non-local perspectives should be likewise acknowledged as they could bring novel ideas (cf. the concept of weak ties proposed by Granovetter, 1973). Linked to this, the Head of Community Development from The HEY Smile Foundation noted that in supporting individuals who create their own ventures (cf. 7.5), sometimes it is important to ensure that those entrepreneurs take a step back to rethink their business models in terms of partnering with others to share resources:

*"We have got all the jigsaw pieces in the area and we can see that there needs to be a change in culture but you need to bring that glue into the community, to say we need to think differently and allow people to take risk. So we can take it out from the statutory service that says that they can take risk and prove the concepts. And then bring it back into the service for them to think differently and change their culture. That would be extremely healthy if that could happen. The culture, however, is that everybody still works in silos and we could do with some glue coming into the area"*

(Interview, September 2020).

Linked to this, findings also reveal that social positioning of some SEs in terms of their good reputation does not imply that they also possess good relational capabilities, which have repercussions on collaborative relationships within the SE ecosystem. For instance, the CEO of a wood upcycling SE in Hull noted that:

*"I went to a couple of meetings with other charities, networking meetings and I couldn't stand it. They were in the job for the sake of being in the job. In your own department, you're not interested in anybody else - only what they can bring for you. Maybe I just met the wrong people, but I got the feeling they were incompetent - if they were in business, they would be out of very quickly"*

(Interview, July 2020).

The above statement additionally raises an important matter regarding skills gaps among SEs.

In summary, the findings reveal that the degree of collaboration between SEs around CE practices depends on variegated levels of relational capabilities among employers/potential partners. In case of mental health charities, collaboration is contingent upon their targets and

aims, which vary on annual basis. A lot of collaboration among SEs occurs on transactional basis whereby relationships are not underpinned by trust (e.g., HWR or Emmaus Hull & East Riding occasionally purchase reclaimed paint from Community Re-Paint). Some of such relationships surrounding resource transfers may, however, occur on a friendly basis, for example HWR occasionally donates reclaimed wood to another SE working with wood. On a related note, some SEs negotiate purchases of vacant urban land from SEs that they “*already know rather than on competitive basis*” (Interview, social housing sector SE in Hull, April 2021) in order to build more emergency housing infrastructure for vulnerable women. The above case hence illustrates how the increase in the volume of offered provision may be contingent upon relational capabilities and strong, trust-based ties of SEs to other enterprises (cf. 7.3).

#### 6.3.4 Influences on Network Heterogeneity and Circularity

Network heterogeneity, which may to some extent impact, and be impacted by, social positioning of a given SE can be associated with the development of a more socially inclusive CE. As the section 6.2 highlighted, some of the more socially oriented enterprises may collaborate with more environmentally oriented SEs so that flows of knowledge and resources, as well as the development of more socially inclusive CE practices, are enabled. It can be therefore assumed that, depending on the broader network context, the higher network heterogeneity within the broader ecosystem is, the more circularity and social inclusion associated with SEs’ circular activities can be fostered. It can be also argued that the larger network is (i.e., there are many ties), the higher chance of network heterogeneity, and hence potentially more circularity.

Consistent with studies demonstrating that ego-network diversity is shown to be negatively correlated with young ventures (Witt, 2004), many of the SEs under study that are less than 3 years old have less heterogeneous ties than more established SEs (see ROPO design – no 14 and Sue Ryder – no 16). This may be correlated to the fact that it takes a lot of time and energy to forge new links in such not well-established and resource-constrained SEs (cf. Greve & Salaff, 2003). In addition, some charity shops such as Sue Ryder, which only recently opened its premises in Hull, belongs to a larger national chain and is subordinated to centralized, higher management structures, tend to display lower degrees of flexibility when it comes to decision making at the local level and, linked to this, rarely collaborate with other SEs/organizations in the city unless they belong to the same national chain. In a similar fashion, albeit not exclusively, ScrapStore Hull tends to collaborate with ScrapStores in other localities (e.g., in Selby) to swap products. However, in principle they tend to take care of their own area.



Interviews revealed that some SEs simply do not have an interest in forging new collaborations out of personal reasons, an example being personality traits. Findings also reveal that young entrepreneurs (e.g., ROPO Design) tend to be more willing to seek to establish collaborative ties with other actors in order to grow their ventures. This is less so in case of retired entrepreneurs who do not actively seek new collaborations, yet, depending on the availability of time, could potentially expand their activities (e.g., run educational workshops). Small enterprises are also not very willing to collaborate with larger, more established organizations due to a perceived risk of being ‘overshadowed’ by them. As a representative of one small SE noted: *“I don’t want to be on their saddle, I just want to do things by myself”* (Interview, food sector SE in Hull, March 2021). When it comes to B2B transactions or transaction-specific investments some suppliers may be potentially reluctant to transact with new, less established ventures whose future is uncertain as they may be unable to recover investments in case they fail (Lee et al., 2001). While such notion was not explicitly implied in the findings, it is nonetheless worth considering.

In reference to 6.3.2, it can be also noted that smaller organizations are subject to competition with larger ones over their access to certain CE services such as shared equipment as offered by, for example, The HEY Smile Foundation. Given that such access to shared resources may propel SEs to collaborate with other organizations in the city (yet provided that good management structures are in place), it does, to some extent, impact their ego-network heterogeneity. As the representative of The HEY Smile Foundation noted:

*“Our equipment is greatly used by Absolutely Cultured so that the City of Culture is pushing back all the small organizations. So we had to manage them. We said to them that we really want The Vault to be used for community activities so if they are doing an event in Orchard Park, they could work with St Michaels instead as they would like the equipment as well. So you create that legacy of learning and ensure that St Michaels can continue doing those festivals in their community. We need to ensure that organizations are not taking away equipment from those smaller groups that need the equipment as well”*

(Interview, September 2020).

The above statement implies that certain measures need to be undertaken in order to mitigate unequal power relations between SEs. For example, the Vault is currently looking into ways on how large charities could make a fair financial contribution to The Vault without taking away its ethos (cf. 6.3.2).

The seeming unwillingness of more established SEs to collaborate with others stems from the fact that it is relatively costly (meaning time consuming) to seek new collaborations, even

more so in case there is a relative unwillingness among SEs to collaborate. Some representatives of SEs in Hull, in fact, complained about the lack of collaborative spirit in the city, which may be amplified in particular spatial locations (see 6.4). In addition, SEs may maintain many connections as a result of organizational longevity. For example, the CEO of a well-established (yet small in a physical sense) food SE – EMS - noted that:

*“We have partnerships and networks all over the city, mostly because of longevity more than anything else. We’ve got fingers in all pies”*

(Interview, August 2020).

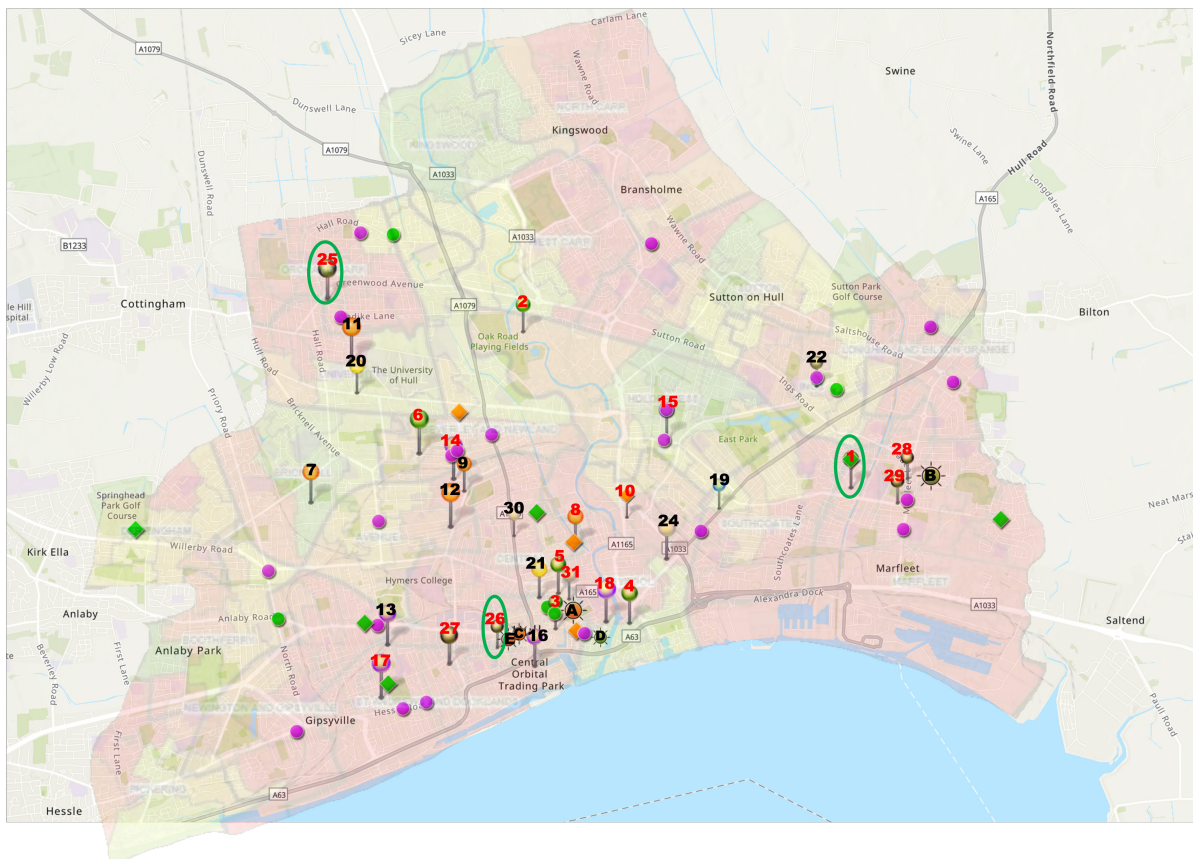
While large network size does not necessarily imply that the network is heterogeneous, it can be assumed that the larger organizational network is, the higher chances of the network being heterogeneous. The extent to which such diverse ties may result in socially inclusive and circular outputs is, however, determined by internal capabilities and favourable external conditions. For example, Enviromail delivers waste collection and processing service to over 300 organizations that have different functions and represent different sectors, yet it cannot deviate from its primary mission (of managing waste) by seeking to expand its activities in collaboration with its clients. Another example concerns Traenerhus, which is planning to reduce the number of its members to help manage escalating workload demand from artists. This suggests that adding new relationships could potentially result in diminishing marginal returns unless enterprises significantly expand and, doing so, generate more profits to cover new management structures (cf. Deeds & Hill, 1996).

Overall, this subsection revealed that aspects such as organizational age, size, management structures and entrepreneurs’ age impact network heterogeneity, and hence circularity.

#### **6.4 Zooming in and out: Spatial Positioning versus Circular Ties**

In addition to relational/social proximity (cf. 3.3.6.3v), this research argues that geographical proximity (or lack thereof) between respective SEs has implications on the formation of collaborative, cross-sectoral relations, which may ultimately either enable or constrain local development of a more socially inclusive CE in the city. More broadly, spatial positioning may impact, and be impacted by, the SEs’ social positioning, which may likewise impact collaborative capacity. Crucially, recognizing not only the relational as social but also as spatial, including the broader neighbourhood contexts in which SEs are embedded (6.4.1), reinforces the idea that networks are inherently socio-spatial in terms of their construction in particular places (Jasny et al., 2019).

Map 6.1 below indicates geographical positioning and spatial dispersion at the city-scale of respective SEs (including SIOs) that participated in the study. However, given that some of the organizations have their premises based in one location, yet they deliver their goods/services to different parts of the city, the map does not fully showcase how (potential and existing) CE benefits are spatially distributed across the city<sup>44</sup>. This map also does not capture benefits associated with goods and services delivered to customers/beneficiaries who may travel across the city to specific SEs. Numbers of SEs that deliver services and/or products throughout the city are in red.




**Map 6.1 - Social enterprises and support infrastructure organizations versus levels of deprivation according to The Index of Multiple Deprivation (2019) in Hull**


Note: See Map 4.3 to view significance of shades according to The Index of Multiple Deprivation (2019); Graph made in: ArcGIS.


<sup>44</sup> 'SE23' is an online platform connecting charities and individuals hence is not depicted in Map 6.1; its staff works remotely but their registered address is in central Hull.


**Legend:**


 - SEs (colours imply predominant sectors, see Table 6.1)

 - Hull Foodbank's ('SE3') branch






 - EMS's ('SE1') community shop

 - Dove House's ('SE18') charity shop

 - Emmaus Hull & East Riding's charity shop

 - SIOs (green implies predominant food sector)

 - Food hub

	Name of a SIO	Symbol
1	The Smile Foundation	
2	TimeBank Hull & East Riding	
3	North Bank Forum	
4	Hull Food Partnership	
5	Humber Learning Consortium	
6	Friends of the Earth Hull	
7	Charity Retail Association (London, UK)	

McPherson et al. (2001) recognized that geographic propinquity (alongside other non-spatial factors such as isomorphic position) creates contexts for the development of homophilous relations whereby collaborating actors are broadly similar to one another. Nonetheless, interviewees clearly indicated that many SEs are less willing to collaborate with those SEs representing the same sector and mission (e.g., delivering educational workshops on food growing or housing services) that are located in a close geographical proximity due to competitive pressures and the risk of inadvertent knowledge spillovers. Such negative externalities and perceptions may occur regardless of SEs' social positioning/development stage.

Younger SEs facing liability of newness and smallness are, however, even more likely to experience such challenges as they try to establish themselves in the market. Many SEs are hence required to find strategic ways of locating their activities, often acting as satellites across the city, thereby providing services outside their original catchment area (and going

beyond a perception of the existence of an East-West cultural and social divide in the city) (see 7.4.1). An exception here concerns charity shops, many of which are located in close spatial proximity, yet do not tend to compete with one another over customers. As the representative of a large local retail charity noted,

*“[customers] often do charity shop rounds (...) so some of our more successful shops are actually in a parade of shops where there are three different charity shops because generally shoppers are not shopping to support the hospice, they are shopping because there is a t-shirt that they like. So they have not really got the brand loyalty. Whereas if you are donating your clothes, you might then actually want to give them to a charity of your preference”*

(Interview, August 2020).

Findings reveal that the failure/closure of charity shops is, instead, largely attributed to their internal organizational difficulties, which have been exacerbated by external factors such as COVID-19. Such difficulties usually concern financial issues, for example, when managing volunteers who wish to be remunerated (e.g., the case of Recycling Unlimited), or in general financial difficulties that may prompt SEs/charities to seek other ways of generating income (the case of Age Hull UK). There are also some spatially contingent power imbalances whereby well-established and larger SEs tend to dominate. For example, the representative of a large charity sector SE stated that:

*“We can’t keep opening shops anymore because we are running out of spaces where they are busy enough to have shops. We can’t step outside of Hull and East Riding catchment area because there are other hospices and so you can only have kind of like one charity shop in that village or on that high street”*

(Interview, August 2020).

Surprisingly, the fact that it is becoming increasingly difficult to find a commercially/geographically attractive space for a charity retail shop has not had any significant impact on the performance of that particular SE. While the SE competes with other hospices in the area with regards to ways of raising money, it succeeded in opening a trading company under which it owns a vintage second-hand shop (which is located next to one of its retail shops), formed a merger with another SE with which it shares revenues, and founded a lottery enabling to source more financial capital from outside its catchment area (see 5.2.4). Such smart way of generating income from outside the catchment area does not, however, lessen unequal power relations among SEs that compete for funds; in fact, quite the opposite (cf. 6.3.2).

Interestingly, when it comes to SEs engaged in food growing practices, the CEO of a SE running educational, urban farming workshops – noted that:

*“Hull is big and broad enough that competition for people does not cause any problems. (...) People would engage depending on their geographical location and sites are quite different. Ours it is a woodland and a meadow and Rooted in Hull is a city farm and it has its own ethos and infrastructure. The fact that we have a woodland and a meadow opens up different types of activity: we can run more green woodworking<sup>45</sup>, more conservation projects etc.”*

(Interview, June 2020).

The above statement suggests that recognizing the broader geographical characteristics of an area in which SEs choose to base their premises and/or run their (circular) activities is likewise important as it may affect the social character of their service activities and customers.

Collaboration tends to be much easier when two co-located SEs representing different sectors enrich one another so that one SE’s weaknesses may be another SE’s strength. For example, EMS works in partnership with Child Dynamix whose premises are located next to the premises of EMS. Both SEs have regular meetings to exchange experiences and discuss any further opportunities to collaborate (incl. joint bid writing). In addition, EMS involves Child Dynamix’s beneficiaries – young people – in its cooking and gardening activities, which incorporate CE thinking and practice. EMS further offered food aid parcels to Child Dynamix’s beneficiaries and staff furloughed because of COVID-19. Such collaboration in the face of crisis enabled trust-based relationships to be built between the two organizations.

SEs may also complement each other’s activities while being co-located within the same premises so that their overhead costs are reduced (see 7.4.3). The Head of Community Development from The HEY Smile Foundation, for example, noted that there is a potential to utilize the so-called ‘meanwhile spaces’, i.e., empty office spaces/units/segments, which could be, at least partially, donated to charities for shared use at low rates (cf. 7.3.1). This is especially relevant in the context of the COVID-19 pandemic, which prompted many people to work from home, and ultimately left many businesses paying business rates for underutilized spaces. Under such circumstances finding relational/asset-specific synergies between two SEs is of key importance to ensure that they have some elements in common notwithstanding geographical location.

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<sup>45</sup> Given that Down to Earth uses reclaimed wood for its woodworking workshops, this activity can be classified as ‘circular’.

Overall, findings suggest that SEs - particularly those located in close spatial proximity - are likely to form homophilic ties provided that they complement each other's activities. For instance, EMS works in partnership with a neighbouring SE that likewise provides food to the local community (though at much higher prices than EMS), yet offers EMS free space for cooking, events and food storage. While studies suggest that geographical proximity alongside longevity can positively impact the quality of relationships due to the time required to foster trust (Lechner & Dowling, 2003), close geographical proximity does not always lead to high levels of trust and reciprocity between any two co-located organizations. For example, efforts by the same SE, EMS, to transform vacant urban land owned by a neighbouring SE failed when the latter SE decided to hand the land over to a private company, which transformed it into social housing. This showcases how complex power relations underlie many ties and, more specifically, how cooperative behaviour - notwithstanding the benefits of spatial proximity - does not necessarily result in a return of favours depending on the financial capital at stake.

#### *Towards Joint Entrepreneurial Hubs?*

The research revealed that three food sector SEs in Hull act as 'food hubs', which were set up during the COVID-19 pandemic as emergency feeding hubs and form homophilic ties by mission attribute in that they coordinate efforts to provide food aid across the city (see 'O' icon indicating food hub in Map 6.1; and SE 1, SE 25 and SE 26 in Figure 6.1). Facilitated by FareShare Hull & Humber (no 2), which is managed by the Goodwin Trust (no 26) and redistributes food surplus from large retailers to social and public sector organizations across the city, strategic spatial positioning of these food hubs (i.e., in the northern, central and eastern parts of the city) helps them to effectively realize their shared mission through cooperation. They also exemplify how networks constantly evolve in the face of external shocks such as COVID-19 that created a spike in demand for food aid.

On the one hand, serving as an alternative to such food aid initiatives based on hubs, SEs such as Rooted in Hull (no 4) - an urban agriculture project in central Hull - have carved out an entrepreneurial niche within the locally developing CE in Hull. While some of the unsold (organic) food products grown in Rooted in Hull's premises are redistributed to community organizations helping those who struggle with food poverty, promotion of self-sufficient communities is at the core of the SE's mission. Such increased cooperation with different actors outside the SE's direct reach, and which helps to build a good reputation in the broader entrepreneurial ecosystem, is consistent with the theory of indirect reciprocity that helps to explain cooperative acts towards strangers (Apeldoorn & Schram, 2016).

Rooted in Hull is co-located with Humber Galvanizing Ltd., which had vacant land that the SE was able to lease as a tenant. Such geographical proximity enabled the development of trust and reciprocity between the two partners. In return for free rent, supplies (e.g., water tanks), or technical help (e.g., when it comes to lifting heavy stuff using forklift or electric stuff), Rooted in Hull not only enhances the private company's corporate image, but also offers an attractive outdoor space for corporate socially distanced events in times of the COVID-19 pandemic. Such collaboration is in line with Witt (2004:408) who noted that "*In the long run, the ties need to be symmetrical and based on contributions of equal (subjective) value. Entrepreneurs trying to utilize their network ties opportunistically without reciprocal offerings are bound to fail*". Rooted in Hull also hosts a variety of social events, welcomes volunteers from the adjacent prison, and provides a market space for local artists and food growers. Despite having strong as well as both formal and informal ties to several organizations that result in mutually beneficial exchanges of resources (i.e., *multiplex ties* – cf. Gonzalez et al., 2014), the temporal nature of the Rooted in Hull's tenancy agreement suggests that the longevity of this mini-SE-ecosystem is contingent upon the private company's future growth strategies. Nonetheless, following the social exchange theory (cf. Dijkstra, 2015), the rewards of that relationship seem to be higher than uncertainty over the longevity of a leasing contract.

On the other hand, food hubs operated by Goodwin Development Trust (no 26) and Unity in Community (no 25) are autonomous and arguably more resilient in that they own their properties. While these hubs tend to be more interested in providing emergency food assistance, they have the potential to disseminate CE thinking and practice in their neighbourhoods. For example, Unity in Community is in the process of developing a community hub, which is expected to host an array of inclusive training schemes, and which is surrounded by entrepreneurs, some of whom could contribute to the CE in the city.

Another interesting hub, which has the potential to promote circularity concerns refurbishment of the former church by a local SE – Giroscope (no 27). The building is expected to accommodate start-ups, SEs and sole traders - some of whom are engaged in CE practices (cf. 7.5). In addition, the representative of Dove House Hospice expressed an interest in opening a department store hosting several different charities so that they could share overhead costs (cf. 7.4.3). Such a department or 'hub' store could potentially expand a circular curriculum by partnering with other, locally-based enterprises that could in turn offer clothes recycling (e.g., Life and Loom), repair (e.g., Simon the Bike Guy Heslop – a SE that offers bike repairs and receives support from Probe, Ltd.) and a market space for products of small entrepreneurs such as ROPO Design, among others. Crucially, such agglomeration or clustering of diverse SEs in one place/community can generate a range of 'untraded interdependencies',



i.e., intangible benefits that cannot be costed (Storper & Walker, 1989). These may include enhanced community spirit and networking/sociability (which is in turn related to 'relational capacity' that is conducive to 'absorptive capacity') that may result in beneficial work partnerships, as well as and lowered costs, for example in case visitors decide to repair their items for free whilst gaining new (tacit) knowledge. Under such circumstances an individual empowers community and community, in turn, is empowered by individuals. Moreover, such clusters, or entrepreneurial community hubs, which could be referred to as 'open/porous shared spaces' in that general public can access them and witness community life (Jarvis, 2018), could be also viewed as reservoirs of social capital. Whether trust in such clusters would involve "*a willingness to subordinate individual desires to group objectives*" (Anderson & Jack, 2002:198) is, however, dependent on many factors that are context-specific. There are also financial challenges associated with the creation of such 'clusters'/'hubs' (see 7.4.3 and 7.5 for more info).

Overall, while co-location may enable information, untraded interdependencies and knowledge spillovers (Breschi & Lissoni, 2001), gains from co-location may also come with costs (Bagley, 2019). For example, entrepreneurs clustered around such hubs may need to travel across the city to reach their workplace. One could, however, argue that such costs may be offset by environmentally friendly activities within such hubs. Entrepreneurs could be encouraged to travel by bike or bus so that any travel-related carbon emissions are significantly minimized.

#### 6.4.1 Neighbourhood Context

Focusing on East Hull, this study examined relationships between SEs and the neighbourhood contexts in which they are socially and spatially embedded to reveal how socioeconomic characteristics of a particular neighbourhood (including racial demographics, crime levels and home ownership) may impact collaboration between respective SEs, and subsequently adoption of CE thinking and practice in particular places. Various studies, in fact, reveal that neighbourhood context can interact with the spatial location/ (dis)proximity aspects, thus further impacting the likelihood of collaboration (Jasny et al., 2019; Granovetter, 1973). Findings reveal, in line with Connolly et al. (2013), that while some SEs tend to run their activities in one particular neighbourhood, other SEs may operate (or would like to operate) as 'satellites' across the city, the latter case often being contingent upon the broader characteristics of particular neighbourhoods and service users (cf. 7.4.1).

This research focused on neighbourhoods in East Hull - a part of the City, which includes some of the most socially deprived areas and one of the largest food deserts in England (cf. 2.3.1.i). It

involved three interactive sessions that employed community asset mapping methodology with users of the Hull Community Shop (run by EMS), which helped to paint a broader picture of the physical and social infrastructure in that particular area of Hull (see 4.4.4 and Appendix 4 to see an overview of research findings from the mapping sessions). To some extent, the adopted approach helped to examine the productive endogenous potential of a given part of the city, the knowledge of which is of high importance to SEs as they often choose to locate their premises and activities in areas where they can (1) capitalize on relevant physical and social infrastructure, and (2) exercise the biggest impact on local communities (Svendsen & Campbell, 2008). Focusing on local neighbourhood contexts is even more important given that residents in the most deprived areas of Hull have reduced mobility not only due to limited infrastructure but primarily due to the inability to afford public transport. As the CEO of EMS based in East Hull highlighted:

*“We have to think about the bottom line. People get food bank vouchers, but they cannot even get to food banks because they cannot afford buses.”*

(Interview, August 2020).

It can be argued that SEs based in East Hull would benefit from cooperation with those SEs that are either located in (close) proximity or are able to deliver their services across the city to particular satellite locations. This could be facilitated by SEs capitalizing on existing social (built) infrastructure, such as community centres and hubs that already host community food fridges. However, high levels of deprivation also go hand-in-hand with high levels of crime, which may impact the spatial location of SEs (and their services) promoting resource sharing/renting in such neighbourhoods. As the CEO of a SE in East Hull cautioned:

*“Unfortunately a lot of rented bikes would disappear. It’s like laptops were given and then some of them disappear – they were given to kids to use when they were not at school. There are a lot of good folks here but there are also quite a few gangs. Schools can be regarded as safe spaces for kids and then they were shut down due to COVID.”*

(Interview, August 2020).

In a similar fashion, the CEO of a charity SE located in a crime-filled neighbourhood in West Hull rejected the idea of running a rental service as a result of experiencing break-ins. Likewise SEs such as Library of Stuff would, quite likely, need to employ extra security measures in order to thrive in East Hull (or other deprived parts of Hull).

Despite high levels of crime, community mapping sessions and interviews revealed that certain neighbourhoods are characterized by a degree of trust among residents. For example, one representative of EMS and who resides in East Hull noted that:

*“Even though we don’t mix, we don’t go to their side and they don’t go to our side of the road, we will all still help each other. We know that if something is wrong with a kid that we don’t know, we would be looking out for that kid. Every parent would look for him/her”*

(Interview, August 2020).

While the above finding does not have any direct implications for levels of collaboration among SEs, it can be argued that collaboration between SEs aiming to benefit residents in those particular neighbourhoods could result in social circular activities helping to boost connectivity between residents on ‘both sides of the road’. Such activities could, for example, concern clothes swaps that could be run in strategic locations. It would be, however, necessary to create an organization within the area where community groups and SEs could meet on a social basis and build some common ground – something what the CEO of Unity in Community intends to do in West Hull where austerity measures have crippled communities (Interview, October 2020). As Murphy (2006:433) stated, it is important to account for *“the role of space, place and context in shaping trust-building processes and perceptions of trustworthiness”*.

#### 6.4.2 Core-Periphery: Spatial Configuration versus Network Structure

Occupying a core position within a network does not necessarily equate to being centrally located within the city. While findings suggest that there is a high network density, i.e., high concentration of actors, including large SEs in the central part of Hull, these actors are not necessarily more connected to other entities within the network than, say, SEs located in western, northern or eastern parts of the City. For example, EMS located in East Hull, has a large, well-established network with the highest degree centrality ( $n=96$ ) and centrality closeness in the whole network ( $n=0.481^{46}$ ) (see Figure 6.1). Nonetheless, some SEs that are engaged in circular practices and are located on the periphery of the City tend to be, to a varying extent, negatively affected by their geographic location.

An example concerns Recycling Unlimited, which is located on the Western margins of the City that cannot be easily accessed by the public transport. Despite its peripheral location, the SE offers delivery of its goods (from upcycled pellets) and owns a mobile trailer shop for outdoor

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<sup>46</sup> These values are provisional only provisory as the data for each SE vary depending on the amount of information shared with the researcher.

markets. It does, however, struggle with increasing the number of volunteers - something what affects upscaling of its activities and what could be attributed to the SE's remote location. Besides, while the SE offers services to private companies located in close spatial proximity, the majority of pallets is sourced from private companies located throughout the City. Coupled with private deliveries, these aspects have repercussions on the organisational carbon footprint. Interestingly, when asked about the possibility of relocating, the representative of the SE (Recycling Unlimited) stated that: *"If it was such a big issue, we could get somewhere that was better off"* (Interview, July 2020). Interestingly, the representative of a more centrally located SE in Hull noted that:

*"If we had gone into East Hull it is very difficult to get any further from that because Hull is very much split into East and West"*

(Food sector SE, Interview, January 2021).

Nonetheless, a central location is not always beneficial for SEs. For example, the CEO of an enterprise offering arts & crafts (and occasionally upcycling) workshops with local artists in the city centre (SE 18) is seeking new premises in order to collaborate with more actors:

*"There aren't many people down there (...) some people are lovely, there is a café that isn't very creative, a nice pub and then private businesses. But equally everybody is trying to cover their rent and quite often people have got loads of ideas of doing things down the High Street but getting people motivated was really difficult (...) I am desperate to work with the nearby museums, but they ignored my emails. I am just crushed, at the end of the day I am a community development worker, and I am just isolated down here"*

(Interview, September 2020).

This suggests that there is an interplay of various factors inhibiting collaboration, including differential priorities among various organizations, which impact the overall network heterogeneity. Crucially, SE 18 is an example of an enterprise showcasing the negative correlation between its high degree centrality (n=78) and network heterogeneity as the majority of its ties (n=60) are weak ties with individual local makers/artists that are either given a space to sell their products or run workshops at the SE's premises. Some of these artists could, however, have useful connections to other cultural organizations and are 'diverse' in terms of specializing in different arts and crafts. All these aspects need to be taken into consideration when seeking new collaborations for a more *creative CE* in the city that could be promoted by cultural organizations, such as museums and art galleries (e.g., through zero-waste exhibitions).

When merging with Dove House, HWR could afford to leave East Hull for bigger and more centrally located premises. While such strategic geographic positioning enables the SE to attract more clients, and hence generate more social and economic value, it is the East part of the City that is characterized by especially high unemployment and crime levels, and linked to this, mental health issues. Given that there is no similar SE in the field of woodworking in East Hull, yet there is a lot of wood waste/surplus within the city boundaries and in the wider region, it could be argued that replicating woodworking SEs in East Hull could benefit local communities that remain largely insular. Interestingly, the representative of one community SE located in East Hull expressed an interest in exploring an opportunity for wood and furniture upcycling activities in that area (see 7.5 for more info).

In terms of the core-periphery dynamic understood as a structural network characteristic, SEs located in the 'periphery' of the network map (Figure 6.1) concern 'solo-traders and small entrepreneurs' many of whom tend to work only on a part-time basis and/or treat their activities as hobby. They usually do not think about significantly upscaling their ventures. While some of them may have their premises or at least trade their products in the central part of the City, some of them cannot afford rent in more central locations and this may have repercussions on a number of visiting customers unless they are located in proximity to well-known venues such as coffee shops (e.g., Zoo Café in Hull). Many of these organizations are rather new to the broader SE ecosystem and differ from SEs commonly known as charities in that they are not necessarily embedded in, or serving, particular local communities and vulnerable social groups (e.g., mentally disabled), but they instead usually target customers with high purchasing power. It can be argued that such peripheral SEs offer new, innovative ideas and information, which could be exchanged with SEs that occupy the 'core', i.e., a more central position in the network, and tend to be more established (Burt, 2001; 2004). Forging such links does, however, require a certain degree of trust, especially considering that some less established SEs in the periphery may be less willing to interact with more established SEs out of the fear of competition.

## 6.5 Building and Burning Bridges: Circular Network Weavers/Brokers and Irrigators

Network brokers represent the potential to orchestrate more collaborative relationships in order to stimulate CE development within and across sectors, as well as across geographic scales and within particular urban settings. Brokers can be referred to as an organization that *"gains access to many pieces of group-specific information captured inside the different groups, which allows the broker to synthesize a large knowledge pool [and know] which groups or individuals to connect, how to connect them, and when"* (Bodin et al., 2006:r2). Brokers can be

also referred to as *innovation intermediaries* that act as “*organisations (or persons) that assist firms in the eco-innovation process by providing external impulse, motivation, advice and other specific support often by acting as an agent or broker between two or more parties*” (Kanda et al., 2015:3). They can be thus considered as important bridges that help to weave networks, especially those that embody circular practices. Interestingly, Ciulli et al. (2019) recognized that brokers can fill the so-called ‘circularity holes’, i.e., holes between waste generators and potential receivers by recognizing the value of a given product for both the giver/owner and potential receiver. Some of these brokered connections may, in turn, be conducive to the rise of the so-called network spreaders. Network spreaders are those agents that ensure efficient spread of knowledge and information as well as optimize the use of available resources (Kitsak et al., 2010). In addition to impacting diffusion of innovations, they may also impact adoption of innovations. In this research they are referred to as ‘circular irrigators’ that irrigate or have the potential to irrigate the broader social circular enterprise ecosystem with circular thinking and practice.

### 6.5.1 Typology of Network Brokers

Drawing upon the typology of brokers developed by Gould and Fernandez (1989), I will now distinguish between five types of brokers and the roles they play and could potentially play in stimulating the adoption and diffusion (cf. spatial scaling – 7.4) of CE practices within the broader social (circular) enterprise ecosystem in Hull. The presented broker types are not mutually exclusive and depending on the context one broker may represent more than one type. The presented typology recognizes that any type of organization/individual representing particular organization could possibly act as a broker, depending on its capacity, which connects different actors, or at least act as a broker auxiliary who possesses valuable knowledge on how different actors could be connected. Whether brokers are specifically appointed as brokers (i.e., named as such) depends on the desirability of doing so. Any suggestions for appointing specific actors as official ‘circular brokers’ are made under relevant depictions of broker types.

#### *i. Gatekeepers*

Gatekeepers are those actors within the network that have the power to control flows of information/resources to their own networks. Betweenness centrality<sup>47</sup> is an important

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<sup>47</sup> This term indicates “*the number of times a given node falls along the shortest paths between two other node*” (Borgatti et al., 2018:332), enabling to detect bridging organizations/‘the gatekeepers’/brokers linking one part of the network with another (see 3.3.6.3).

measure of gatekeeping. Findings reveal that the highest betweenness centrality is represented by SEs such as EMS (no 1) ( $n=0.194^{48}$ ) and Traenerhus (no 18) ( $n=0.201$ ), or Hull City Council (0.136). Nonetheless, interviews with SEs such as EMS and Traenerhus reveal that these SEs do not have enough capacity to proactively foster new linkages/broker (an exception here constitute referrals upon request) for the purpose of promoting circularity within a given urban setting due to issues such as low financial capital and time constraints. Empirical analysis suggests that it is, in fact, SIOs (e.g., The HEY Smile Foundation or North Bank Forum) and non-profit initiatives/civic stewardship groups (e.g., Friends of the Earth, TimeBank Hull & East Riding, or Groundwork movement) that could jointly facilitate CE-related flows of knowledge and information across the network due to their 'gatekeeping' behaviour, expansive contacts (e.g., The HEY Smile Foundation has good contacts to private sector organizations) and evident interest in promoting neighbourhood renewal through environmentally friendly practices (see liaison broker below). This is in line with Connolly et al. (2013) who recognized that civic stewardship groups may serve as important brokers/bridging organizations that often work alongside policy makers. For example, the representative of The HEY Smile Foundation (a SIO helping entrepreneurs, including start-ups to develop their business models) noted that:

*“We can signpost the entrepreneur [SE] to an organization like Unlimited which is a grant making organization that has a corporate context that would help them to develop that product”*

(Interview, September 2020).

In this case the SIO exemplifies how it controls incoming information from a grant making organization and has the power to decide whether a given SE can be connected to it. One could, however, argue that since that SE does not belong to the same group as SIO, the SIO acts more as a liaison broker between distinct unconnected groups (see below).

*ii. Liaison broker (external)*

Liaison brokers act as liaison between two distinct, unconnected groups.<sup>49</sup> Figure 6.2 below exemplifies a number of possible brokerage combinations among a diverse range of actors. For example, the University can act as an important boundary-spanner that has the potential to incentivize and mediate interactions between relevant stakeholders, especially those on the

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<sup>48</sup> These numbers are not highly representative as it is very likely that more established organizations such as Unity in Community or Goodwin Trust have many more connections and high betweenness centrality.

<sup>49</sup> While SEs can be altogether viewed as one group, in this context they are viewed as representing diverse groups depending on the cluster they represent and social/environmental mission/orientation.

social and spatial periphery of a network. Through multi-stakeholder research projects, such as [Cresting](#), University researchers engaged with industries and SEs can foster linkages between them (see last column in Appendix 3 highlighting possible connections among interviewed SEs). In this way, and in line with Owen-Smith and Powell (2004), a university can also weaken contractual structures (which would otherwise result in proprietary partnerships that are accessible only to members), thus causing information spillover. In addition to acting as a boundary spanner, universities can act as knowledge spreaders that provide valuable technological knowledge, trainings and consulting assistance to SEs. As findings from Santiago (Chile) reveal, training sessions for entrepreneurs help to create a favourable environment for SEs to interact.

Following Ciulli et al.'s (2019) concept of 'circularity holes', it can be noted that SEs, such as those generating income by running second-hand shops, act as liaison brokers who indirectly connect donors of certain products (e.g., large retailers donating unsold clothes) with receivers/customers. In a similar fashion, *brokering* digital platforms, such as OLIO, connect donors of 'food waste' with receivers. Such brokers need to be sensitive to the broader contexts and protect the reputation of economic actors, such as large corporations that seek to donate large amounts of waste/surplus materials to SEs (e.g., textile or food 'waste').

To some extent SEs acting as brokers also address the ethical dilemma of suppliers and need to ensure that they do not disclose the names of private companies (e.g., ScrapStore Hull). Concerning the food sector, SEs such as FareShare Hull & Humber in a way act as brokers between food industries and charities. Moreover, local or regional authorities, which maintain ties to SIOs, may connect them with SEs that are in need of advice.

SIOs may also collaborate with local and regional authorities to create opportunities for SEs. For example, The HEY Smile Foundation has contract with East Riding Yorkshire Council in order to broker opportunities for the voluntary sector. The same SIO brokered the relationship with HCC and Men in Sheds, which resulted in community asset transfer. The HEY Smile Foundation also helped Men in Sheds to receive financial support from the Rank Foundation, as well as donated equipment from local businesses. It is, however, important to ensure that such brokerage, which supports other SEs within the ecosystem, does not create dependency between helper (broker), supplier and recipient, and instead, helps SEs to become self-sufficient. For example, once empowered, Men in Sheds was encouraged by the SIO to help other SEs in the City by offering them 'shed-made' products (e.g., raised flower beds made from donated surplus wood from a local business), or by becoming brokers themselves.



In addition, SIOs such as North Bank Forum could be encouraged to act as mediators of transfers of goods from organizations, such as hospitals. By providing an inventory of diverse organizations donating goods and potential recipients of those goods. For example, one entrepreneur noted that:

*"(...) one could use North Bank Forum platform so that they could tell third sector economy organizations that there are excess non-clinical furniture in hospital if anybody needs them. Otherwise the hospital will send it to landfill"*

(Interview, March 2021).

To make such transfers effective there is, however, a need for a digital platform, which would be easily accessible by any party and would include an inventory featuring organizations donating 'waste', organizations willing to receive 'waste' (cf. Droppoint<sup>50</sup> and Recylink in Appendix 3). Crucially, maintaining such platforms may be costly and efforts would be needed to prevent any free-riding and ensure that inter-organizational synergies are fostered. As a local official at HCC noted:

*"Around 15 years ago we used to have a recycling directory, which attempted to put people in touch with others so that one person's by-product could become another person's raw material. I think it just withered on the vine. There wasn't much of the synergy and it more acted like a drop-off scheme rather than 'I would like some of that and how do I get my hands on it?' "*

(Interview, March 2021).

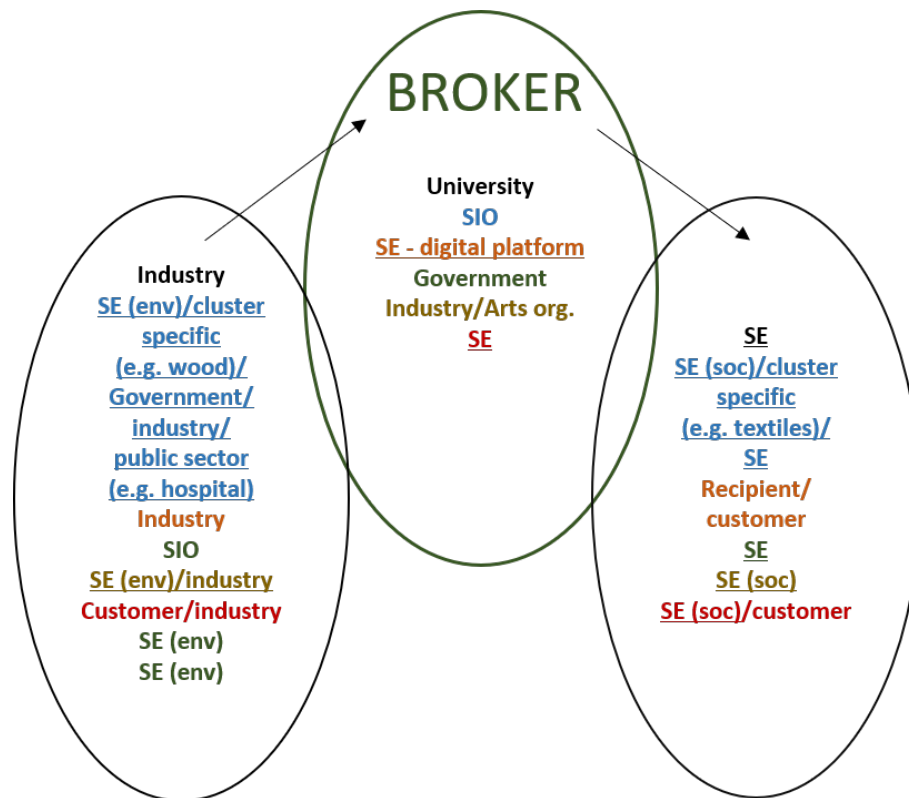
Industry-run networking events are likewise important as they can help to connect environmentally oriented SEs with more socially oriented SEs or vice versa. While such meetings may not always result in SEs sharing practices/adopting other's practices, they can at least enable benchmarking, which fosters a mindset and culture of continuous improvement. Such brokerage events can additionally connect SEs with other industries, for example with the purpose of fostering B2B partnerships, receiving corporate volunteers or engaging in corporate sponsorship (e.g., Life and Loom interacted with several corporations during one of such networking events and expressed desire in corporate sponsorship/B2B).

Some SEs may act as intermediaries between a broad array of SEs (be it more environmentally or socially oriented) by, for example, providing a co-working space for entrepreneurs representing different clusters or those that are more socially-oriented with those that are

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<sup>50</sup> The digital platform offered by Droppoint does not support shipping of big and bulky donations.

more environmentally-oriented. An example here concerns Hull Makerspace, which connects SEs representing different sectors (e.g., textiles and wood cluster). Nonetheless, any proactive collaboration between such entrepreneurs representing different clusters have not been observed at the SE level yet. Crucially, Hull Makerspace Hull may also connect SEs representing the same sector (see coordinator broker role below). Overall, the following brokering mechanisms, which help to diffuse circular thinking and practice across the ecosystem, can be distinguished as follows: networking events; digital platforms; (formal/informal) partnerships; and referrals.

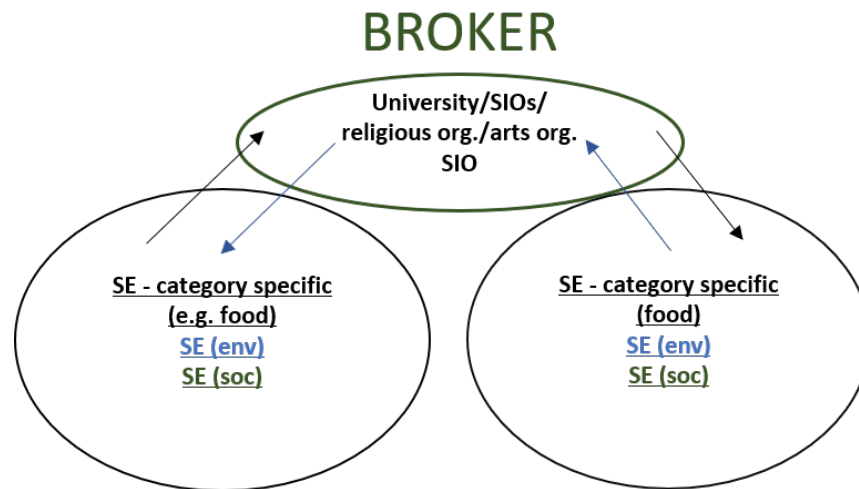


**Figure 6.2 – Liaison broker: examples of actor constellations**

Author’s design after Gould and Fernandez (1989).

*iii. Consultants/Itinerant brokers (external)*

Another type of broker concerns those external brokers that connect actors from the same group. These brokers may connect (1) socially oriented SEs with other socially-oriented SEs; (2) environmentally-oriented SEs with other environmentally-oriented SEs; and (3) SEs representing the same category (e.g., food). Such brokers may concern the university, SIOs (spanning social/environmental sectors/clusters), religious organizations and arts organizations. For example, some church organizations may connect two different SEs/charities representing food aid sector and working with ‘food surpluses’.



**Figure 6.3 – Consultants/Itinerant brokers: examples of actor constellations**

Author's design after Gould and Fernandez (1989).

iv. *Internal/external representatives*

One of the propositions of this research is that members of an emerging CE network should strive to appoint an internal/external 'representative' broker for each member 'cluster'/sector. Such 'representative' brokers could be trustees (who are already familiar with needs and aspirations of some Ses that maintain the status of a charity), or umbrella organizations that would represent voices of entrepreneurs within each cluster (see Figure 8.7 in Conclusions). For example, a SIO - Hull Food Partnership (HFP)<sup>51</sup> - already acts as a de facto representative broker of the food sector by forging strategic partnerships with industries and SEs, as well as by communicating information to local authorities and outsiders. While HFP is not a SE, it can be considered as an *internal* representative as it works closely with SEs representing the 'food cluster'. Such representative brokers could therefore help to develop cluster-specific strategies and govern collaboratively (i.e., by forming bridges across clusters) evolving CE networks in a systematic and systemic manner. This is even more important given that different organizational forms and attributes, including variegated management structures, are likely to be reflected in different networking logics, which would require a more 'unified' approach to CE networking across sectors. In any case such roles would, however, require financial support and hence recognition of CE among potential funding bodies.

The findings further demonstrate that strong ties are more likely to occur within a specific cluster (e.g., food) rather than across clusters, the latter characterised by weak ties. While a

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<sup>51</sup> Representative of HFP defined the organization as a 'think-tank'.

strong sense of trust may make it difficult for (potentially beneficial) newcomers to tap into their networks (Murphy, 2006), bridging across clusters (albeit through weak ties) can be a vital source of innovation as it entails tapping into a source of diverse knowledge. Stated differently, while homophilous ties can help to build trust (although on several occasions sector-specific SEs tend to have closer ties with other sectors, e.g., HWR working with mental health sector seems to have stronger links than Recycling Unlimited – another enterprise engaged in wood upcycling), it is heterogeneous ties that can trigger novel ideas. Some representatives of certain clusters may also act as gatekeepers who control the flow of knowledge and resources to their ‘cluster’. For example, HFP may receive information from outsiders on available funding schemes for SEs and may choose to circulate it only among specific organizations be it intentionally or unintentionally. It is therefore important to ensure that such representatives are transparent and trustworthy.

There could also be representatives for ‘socially-oriented’ clusters and ‘environmentally-oriented’ clusters/sectoral classifications appointed. Those or cluster-specific representative brokers could act as liaison brokers and connect environmentally/socially oriented SEs with other actors that would promote CE thinking and practice. For example, an environmentally oriented SE, such as Down to Earth, could be connected with more schools in order to increase awareness among the youth and ultimately help to alter social structures that cause unsustainable behaviour. As a representative of one SE in Hull noted:

*“Building awareness among school children is good. They can take knowledge home. You have to start with children because you cannot change adults who think differently because it costs 3 or four times more. I think they actually do it more and more because my daughter goes to school where they try to show what impact plastic has on the environment. Building that base is important. I think schools could invite local artists and makers to show how to make different things to kids.”*

(Interview, July 2020).

Another possibility could be to foster interlinkages between SEs working with elderly people (e.g., Age Hull UK) and schools to stimulate intergenerational knowledge transfer. Given that elderly people often grew up in arguably a more ‘communal society’ characterized by stronger links between individuals, they could co-envison with younger individuals’ alternative visions of the future that are based on circular collaborative economy.

Overall, such brokers representing particular clusters reflect hub-and-spoke networks wherein they act as hubs that bring together individuals from other clusters and recognize/create connections between them. Such brokers may also interact with other actors (e.g., local and

regional governments) in order to foster inter-city and inter-regional alliances enabling to formulate better policies that could empower regions and communities whilst stimulating CE development. Depending on brokers' gained knowledge, such weavers can also activate some of the dormant ties or establish new ones between those that share common goals or could complement each other's skills and experiences. In order to do so, there is, however, a need for financial support, strong visionary leadership and a representative body for each 'cluster' that could develop such 'sector specific clusters' and ensure both longevity and continuous character of exchange practices whilst being able to invest time without definite outcome. This could ultimately enable to build relations based on trust and boost the network's ability to act as a social control mechanism. As Marin (2017:101) noted, "*value arises from interactions and these become stronger with the confidence built in the long term*". As a representative from the Hull Food Partnership noted in relation to running new projects:

*"Unless you've got a backer you know you have to have some element of funding from somewhere to enable these things. These organizations thrive because of things like social media and you do it for free for a while and that's fine because you are passionate about it and you really believe in it. But if you are not being paid to do a job then you know that after some time the whole thing doesn't really work well. You do need funding. In the community sector there are hundreds of people doing far more work than they are being paid for and I am not certain that always gets recognized or appreciated"*

(Interview, November 2020).

Appointing such representative brokers may thus likewise require effective brokerage, which would ideally enable to attract necessary funds.

v. *Coordinator within the same cluster (internal)*

A broker may also act as a coordinator in that a given organization belongs to the same group/cluster and act as a broker within that group/cluster. For example, by providing a market space for other entrepreneurs, SEs such as Cat in the Sack connect SEs representing the same 'cluster' (e.g., textiles). While those entrepreneurs do not seem to proactively collaborate, it can be, however, argued that such brokerage SEs could engage them in knowledge sharing and exchange, and possibly work on joint projects.

## 6.5.2 Orchestrating Effective Brokerage and Knowledge Diffusion

All brokers can be viewed as orchestrators of preconditions, which are conducive to the formation of new collaborations, and hence potentially circular initiatives. For example, local authorities can help to establish communication platforms for a broad range of stakeholders and provide physical space to hold multi-stakeholder meetings. Such physical or virtual spaces

can be also provided by SIOs and some of the more established SEs. Brokers may thus need to network with other actors to access relevant resources that enable brokerage. They also need to connect with relevant SEs to gain relevant knowledge. This may include knowledge on how to effectively act as a broker that can not only create favourable conditions for brokerage and connect actors, but also sustain recently established connections by nourishing them where possible.

Crucially, in the context of the CE, brokers need to possess knowledge on how and from whom SEs could procure new resources in a circular way, access and use/combine complementary resources, as well as capitalize on re-using existing assets. They should therefore be capable of recognizing the environmental value of a given good by owner and potential receiver. Following Cramer (2020), it is important to introduce relevant training programmes for brokers interested in CE transitions. Brokers could be also ideally equipped to teach others how to knit their own CE networks. Nonetheless, research findings reveal that many SEs have limited capacity to do so.

Regardless of their specific role, a broker must be perceived as a trustworthy agent in order to connect other entities and generate trust between them. As Marsden (1982:202) noted, brokerage is a mechanism *“by which actors facilitate transactions between other actors lacking access to or trust in one another”*. In a similar fashion, Murphy (2006) noted that it is important to account for trust building processes in order to better comprehend how particular clusters, and constituent networks, could be created, reconfigured and sustained. In this regard, the representative of a SE that acts as a SIO helping entrepreneurs (including start-ups) to develop their business models, highlighted the importance of *“being an honest broker and being experts in what you do and recognize what you can and can’t do. In case we cannot help we have partner that can help”* (Interview, September 2020). The above statement additionally indicates the importance of brokers to have a good reputation that underpins links to external networks, which enable to address any lack of expertise within the organization. This is in line with Stuart et al. (1999) who recognized that any potential gaps in knowledge and expertise can be replaced by reputational ties<sup>52</sup> that, in turn, ease access to other actors: *“the impact of inter-organizational relations is driven more by who a company is associated with than by the volume of its relations”* (page 345). Nonetheless, the volume of relations is important in case those SEs that would be interested in diffusing environmental awareness across the ecosystem. For example, SEs such as BAMEEN CIC (no 5) or Winner, Ltd. (no 29),

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<sup>52</sup> In this brokering case, such reputational ties reflect the liaison broker role.

which expressed interest in raising environmental awareness, have less extensive ties when compared to SEs and SIOs indicated above. Such SEs could therefore benefit from networking events in order to establish more ties with other organizations and ultimately irrigate the broader ecosystem with CE thinking and practice.

To some extent such brokers and spreaders may act as a social control mechanism within a given network wherein the information they diffuse across the network (and thus within clusters) prevents respective actors from acting opportunistically against each other out of the fear of losing reputation (Raub & Weesie, 1990). Nonetheless, once again this requires extra support measures to boost the capacity of the social circular enterprise ecosystem not only to appoint/'raise' relevant brokers and spreaders, but also to equip them with relevant skills and capacities to maintain the forged linkages and gain good reputation.

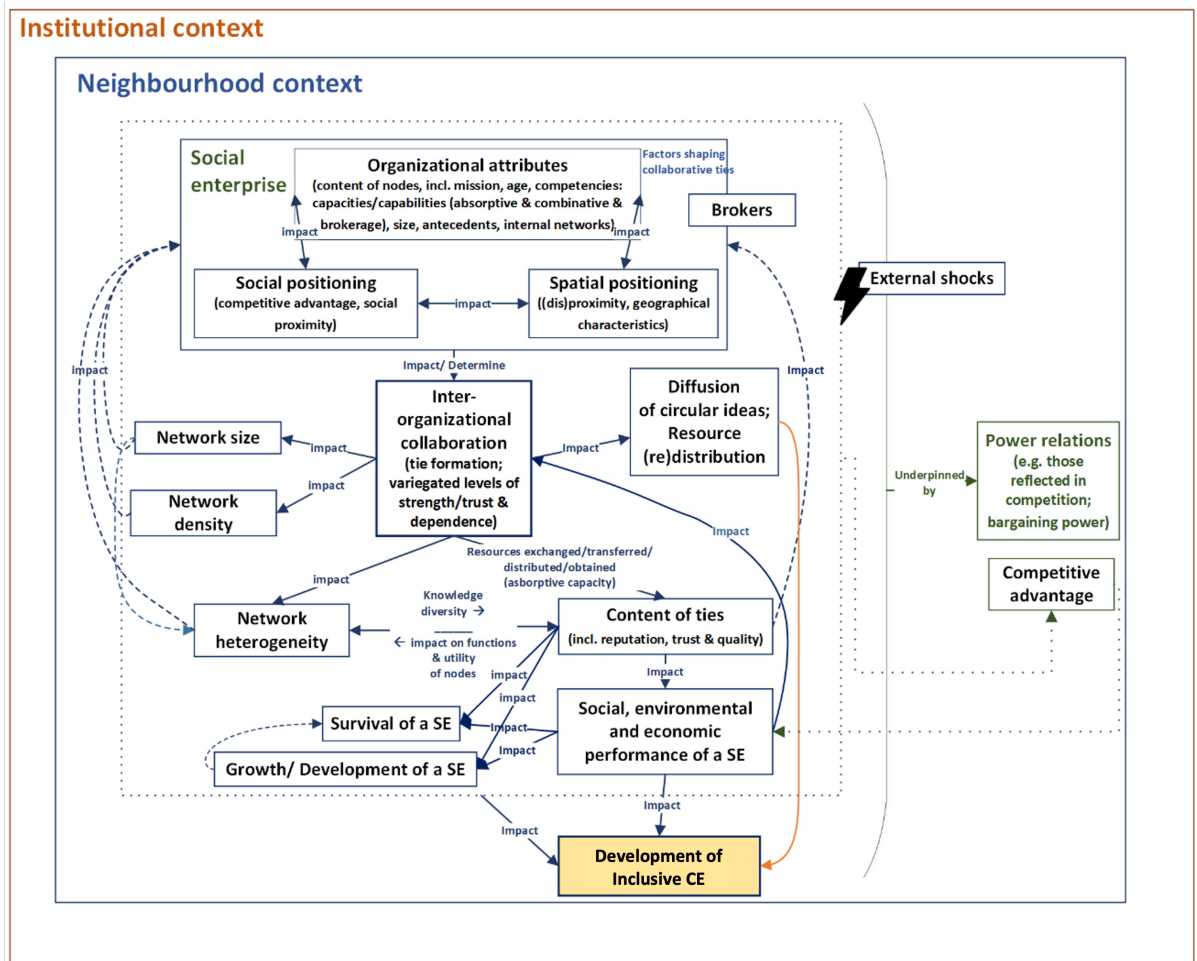
## 6.6 Conclusions

This chapter investigated the actual and potential role of networks in stimulating SE-led local development of a socially inclusive CE that accommodates vulnerable social groups and (small/eco-) entrepreneurs across multiple sectoral classifications (i.e., food; clothing & other textiles; furniture; arts & crafts; hygiene; electronics; construction/housing; women; disabled; elderly; ethnic minorities; homeless; prisoners & ex-offenders; vulnerable youth; refugees & asylum seekers; unemployed; alcohol addicts; mentally struggling; and mixed/other). Recognizing such cross-sectoral interactions is even more important given that our society is increasingly becoming complicated materially/interconnected. While the generated SE ecosystem map only provided a snapshot of the social (circular) enterprise ecosystem in Hull in a given temporal context, some of the key network patterns, which underlie formation of collaborative ties for the CE, were discerned. Knowing the network, including its structural characteristics and key actors is vital for knowing how to design strategies aimed at improving connectivity between respective organizations for the CE development.

First, while SEs in Hull are generally familiar with one another and there are many ties (both formal and informal) across different sectors and urban spaces, many potential collaborative relations are usually impeded due to issues such as competition-driven low trust (including fear of losing uniqueness) and any potential reputational risks between organizations. Collaborative relations may be also obstructed by limited resources such as time and skills to form new relations. As Sennett (2012) noted, effective collaboration is a craft that requires skills enabling to foster mutual understanding. In any case, this chapter has highlighted some points of intersection between SEs and other organizations (including private businesses), which should be prioritized over overly focusing on the friction between them (cf. Chapter 5).

*Heuristic framework illustrating the interplay of various factors related impacting collaborative ties in the development of inclusive CE*

Drawing upon the extensive analysis of research findings from interviews and the literature review, this chapter has developed a heuristic framework summarizing the interplay of factors underpinning the capacity of SEs to form collaborative entrepreneurial ties within a network – a process impacting/shaping local development of a more socially inclusive CE (see Figure 6.4 below).



**Figure 6.4 – Heuristic framework illustrating the interplay of various factors related impacting collaborative ties in the development of inclusive CE.**

Figure 6.4 depicts an overview of a broad array of cause-effect relationships between interdependent variables that underpin SEs' innovative capacity and performance outcomes in the local development of the CE. This is consistent with the social capital theory, according to which organizational performance, or productive benefits, are greatly determined by, and/or enmeshed within, an organization's external networks, i.e., *corporate social capital* (Leenders & Gabbay, 1999). Figure 6.4 also reveals that particular variables (or causal mechanisms/contingencies) may influence (either alone or altogether with other variables) and may be influenced (to varying extents) by the broader institutional context/structural factors, including politics and regulatory environments, in which they are embedded,



especially the overall network structure. Linked to this, findings reveal that employment of CE practices will not increase attractiveness of the overall ecosystem to external and internal stakeholders unless relevant institutional support is in place.

Figure 6.4 illustrates the importance of integrating considerations of SEs' organizational attributes (encompassing internal organizational capabilities, internal networks, motivations behind partnerships or availability of time and money to co-create new projects with other SEs, among other variables)<sup>53</sup> and their social and geographic positioning, when examining development of inclusive CE. It reveals how all these aspects impact and are impacted by (1) the formation of (value-adding) partnerships, (2) content of SEs' ties, and (3) network heterogeneity, among other aspects, as well as offer new insights into the underlying power-relations (such as those linked to competition over funds) and associated variegated levels of trust within the *social circular enterprise* ecosystem in a given institutional context. Interrelationships between these aspects and power relations need to be scrutinized due to their (potential) impact on the broader socio-spatial dynamics (which are also shaped by economic logics for exchange and interaction) and SEs' performance outcomes (both direct and indirect) and, ultimately, on the development of inclusive circular cities. In line with Aldrich and Zimmer's theory of structural embeddedness (1986), the findings hence reveal that certain (social and spatial) positioning within a broader network constitute both opportunities and constraints, and which need to be acknowledged when exploring various scaling strategies (see Chapter 7). It is also important to recognize any potential external shocks (e.g., pandemics) that can cause significant socio-economic disruptions, potentially impacting the formation of collaborative inter-organizational ties, and subsequently scaling of CE thinking and practice. Increased network heterogeneity (i.e., diversity of functions and utility of nodes, including diverse knowledge, as a result of inter-organizational linkages) can, however, increase resiliency to external shocks. This is because increased heterogeneity can lead to better results in resource management (cf. McEvily & Zaheer, 1997), which may result in more circularity, yet provided that respective actors have relevant capabilities to capitalize on those diverse functions, i.e., financial resources and existing knowledge and skills (including relevant organizational management skills) that are necessary for the development of CE practices, especially those which conjoin social and environmental missions. This is where support infrastructure organizations may help by acting as brokers between disconnected organizations and offering business support (6.5). Concerning the content of ties, the ability of

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<sup>53</sup> A more comprehensive overview of organizational attributes and associated interlinkages can be found in Appendix 5.

a given resource flowing through ties to fulfil customers' or community needs (and usually upon being reprocessed at the SE level), is what impacts the performance of a procuring organization and has implications for the survival and growth/development of a given SE, and ultimately for the CE development.

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Finally, the chapter recognizes the need for developing the chain of loosely interconnected 'entrepreneurial hubs' (mini ecosystems) that emerge in different parts of a city, yet around well-established SEs that often act as SIOs for a diverse array of entrepreneurs, including those engaged in the CE and deserve much more attention to increase financial autonomy. Understood as "*inter-connected collections of actors, institutions, social structures, and cultural values*" (Roundy, 2017:1252), such entrepreneurial ecosystems could be infused with more circular practices, ultimately helping to regenerate deprived areas within a city whilst strengthening communities and neighbourhoods across the city. Diffusion of CE thinking and practice could be also facilitated through relevant 'circular brokers' and 'spreaders' who deserve more recognition in sustainability transitions towards the CE. It is expected that digital technologies will continue to play an important role in assisting SEs and their networks in networking/brokering, transacting, maintaining and reconfiguring connections whilst enabling and accelerating diffusion of CE thinking and practice, and thus fortifying circular SE ecosystem regardless social or geographic positioning of brokers.

Overall, in analysing relational social structures and associated linkages in the broader SE system across different levels of organization, this chapter laid out important foundations for the Chapter 7, which examines in more depth the capacities of SEs to upscale and/or adopt CE principles into the fabric of their business models. This is all the more important given that the development perspective in the field of entrepreneurship and networks deserves more attention. Some wider policy implications of the findings reported in this chapter, including a networked and broker-enabled form of governance for the CE, as well as future research recommendations are presented Chapter 8.

## Chapter 7 – Local development of the CE: Social-Circular Scaling Strategies

### 7.1 Introduction

This chapter builds upon the previous chapters on circuits of value (Chapter 5) and networks surrounding the social circular entrepreneurial ecosystem (Chapter 6) in order to examine in more depth the context-specific capacities of 57 case study SEs and SIOs from Hull (UK) and Santiago (Chile) and Graz (Austria) to ‘upscale’ their activities. In this research scaling concerns a deepening and broadening of the scale and scope of environmental- circular, social and economic value outcomes/impacts associated with (circular) activities in particular places. More specifically, this chapter explores what it takes for place-based SEs to improve and/or diversify their circular products and services, and/or employ CE practice and thinking into their mainstream activities so that positive social, environmental and economic impacts are maximized. This entails the examination of internal and external capabilities and assets/resources they own and/or could potentially access/capitalize on at different times. The incorporation of CE thinking into the broader internal operational processes (e.g., running of a given enterprise’s premises involves certain water and energy costs), and which may have (in)direct implications for the performance of SEs and sustainability of ‘external’ circular activities, commodities and services, is not the key focus of this research. Nevertheless, these aspects are on several occasions considered when evaluating the capacity of SEs to upscale and/or adopt CE thinking into their external activities, products and services.

Although Social Network Analysis (SNA) has rarely been adopted in research on growth of SE ventures, findings from the SNA in this research are important ingredients for a more in-depth analysis of scaling strategies among diverse SEs. This has enabled the identification of a number of cross-sectoral interlinkages for CE development (cf. Chapter 5 and 6). In reference to circuits of value, value in its different circulating forms can be seen as a mediating variable between the broader (value) networks and scaling pathways. This chapter hence revisits the diverse values attached to different ties surrounding particular organizations and views them through the lens of CE scaling strategies. Overall, this chapter explores a number of (internal/external) contingencies behind respective CE scaling strategies that encompass both endogenous factors (e.g., motivations/reasons behind scaling, resources, capabilities, or size and age of enterprise) and exogenous factors and opportunities (e.g., external partners, markets, innovations and circumstances). It contends that different SEs have different structures and capacities to advance CE thinking and practice in particular socio-spatial contexts. The same variegated structures and capacities raise important questions as to who is excluded or included in SE-led local development trajectories of the CE.

The structure of the chapter is as follows. The first three sub-sections explore some of the key scaling strategies in the context of case study SEs in Hull (UK), Graz (Austria) and Santiago (Chile), and in so doing it interrogates some of the causalities and interdependencies of variables impacting scalability. More specifically, the first subsection (7.2) outlines cross-sectoral in-house growth strategies related to impact maximization through improvement and diversification of existing provision. The subsequent subsection (7.3) explores in-house growth strategies understood as increase in the volume of offered products and services. This chapter then examines variegated ways of improving the delivery of respective circular products and services across different spatialities so that more people can be reached in specific places, yet in a more efficient and profound manner ('scaling deep') (7.4). Such strategies range from hub-and-spoke models to (circular) franchising, joint ventures, spin-outs or improved marketing and lobbying. This chapter then explores the potential to create new CE-oriented ventures, focusing on the City of Hull. Research findings presented in this chapter constitute an important ground for the *Integrated Social-Circular Value-Impact Scaling Framework and toolkit* introduced in Chapter 8 (8.2 and 8.3).

## 7.2 Conjoining Spaces of Production and Spaces of Exchange: Towards Improvement and Diversification of Products and Services in CE Ventures ('Scaling up')

In a CE, spaces of production of value (aka spaces of re- & co-production) are spaces where products and services (and associated knowledges and policies) are being re- and co-designed and re- and co-produced using procured materials/inputs (cf. material and financial flows in Figure 5.1 in 5.2). This is where 'waste'/leftovers may be subject to value-retaining activities such as maintenance, reuse, repair and/or reverse logistics that reconnect consumed goods with producers (cf. Chapter 5). Crucially, particular products and services may be either subject to 'improvement'/'adjustment' and/or 'diversification' (i.e., the increase in the range of new products, services, knowledge and policies), yet in a social-circular fashion so that they can render more social, environmental and/or economic benefits among particular social groups (e.g., via product life extension). Such benefits can help particular SEs to become role model CE organizations for less sustainable companies – such a spillover could occur via improved marketing and SEs showcasing their positive impacts.

Given that any improvement and/or diversification of respective provision (including the way it is produced) impacts diversification of customers and attracts particular groups of people, which, in turn, shape demand for respective products/services, this section explores contingencies and causalities between spaces of (re-&co-)production and spaces of exchange. This is even more important considering that social relations of production determine (non-

)monetary/exchange value (price), terms of exchange, quality, scale and procurement of inputs (i.e., resources, land, labour) and outputs in a given temporal context (Narotzky & Besnier, 2014; Rantisi et al., 2020:280). More broadly, this section examines innovative capacity of SEs by considering how, and under what conditions, SEs could reconfigure their resource portfolios by complementing them with particular resources, adding new resources or replacing particular resources with new ones. Doing so, it adopts a cross-sectoral approach to cross-fertilize innovative ideas and strategies emerging from the analysis of three different spatial contexts (Hull, UK; Santiago, Chile; and Graz, Austria). In line with Saunila and Ukko (2012), this research determines innovation/scaling capacity not only as a potential but also a strategic capability that has already been realized to account for a diversity of its impacts and possibilities.

### 7.2.1 Improvement of Existing Provision: From Wonky Vegetables to Refillable Jars, Insulation Panels and Second-hand Furniture

Improvement of existing products in a circular fashion usually entails sustainable diversification of resource providers/suppliers and hence productive capital understood as means of production and labour. This subsection considers a range of strategies for increasing circularity across a number of different sectors through various local sourcing (cf. 5.3.1) and circular product design strategies.

#### *i. Local material sourcing*

One way of improving existing products so that they comply with CE thinking concerns local sourcing of materials. This is because circular activities are often deemed sustainable when they occur at the local level (Stahel, 2013). Such local sourcing may be enabled by relevant infrastructure, for example containers for textiles for recycling, which can also be used by other entrepreneurs (e.g., Miss Moon Reutilizables based in Chile is interested in giving away her textile scraps for recycling by Ecocitex – a Chilean SE offering containers for discarded items from consumers) or easing access to municipal waste recycling centres (see Happy Bird from Chile, Appendix 3). Other sectors focusing on higher value goods, e.g., electronics, can source goods locally provided that they receive donations from individuals in a local area.

Concerning the food sector, it is unlikely that food surplus could be sourced more locally – SEs in Hull such as FareShare Hull & Humber tend to source food products from nationwide food growers. Procurement of fresh produce from local farmers by organizations such as Hull Foodbank has largely occurred only in response to the COVID-19 crisis. Nonetheless, local food production could be incentivized through commissioning, an example being a large feast event that took place in the City of Hull in 2018. As research findings reveal, this is when TimeBank

Hull & East Riding commissioned local growers to grow food to feed over 1,500 people whilst bringing money into the local food economy and helping businesses to develop. Given that not many farmers in the areas surrounding Hull grow vegetables, it is also unlikely that SEs in Hull could procure substantial amounts of ‘wonky vegetables’, which are often deemed unsaleable in mainstream supermarkets. Interestingly, the director of HFP noted that some of the food growers in Yorkshire put wonky vegetables such as cucumbers in a skip as they must all be wrapped in plastic in order to last up to three weeks. It is therefore necessary to improve the redistribution system to avoid generating excess waste. In Chile, the CEOs of Súper Justo – a local zero-waste shop – noted that there are significant challenges to selling locally grown food products in other parts of Chile due to the high costs of transportation resulting from long nature of the country. Given that some of the Chilean products such as (transgenic) lentils cost more than Canadian (non-transgenic) lentils of good quality, the SE also procure some of its products from large national food importers, which have a well-developed infrastructure.

Another way of sourcing materials locally may concern collections of food surplus from restaurants. Nonetheless, this is likewise going to be challenging due to extra complex and time-consuming food safety measures and logistics that would need to be undertaken. Interestingly, the CEO of Ecología en tu Barrio in Chile noted that his technology could enable restaurants to recover food residues, which could be used as compost in neighbouring urban farms. The same urban farms could, in turn, grow vegetables for those restaurants. The process of forging such connections does, however, require a lot of time-consuming networking and negotiations, which remain unaffordable for many sEs. In a similar fashion, SEs such as FareShare Hull & Humber are already dealing with large amounts of food surplus/waste that require extra logistics and finding new recipients, thus it is unlikely that they would have enough resources to find new providers. Interestingly, one SE cooking meals for homeless people in Hull had to close after it was unable to deal with large amounts of food donations and had to comply with complex food and environmental health safety regulations (Interview with the director of HFP, September 2020).

*ii. Improved product/packaging design: reusability, durability and sociability*

Improvement of the overall product design, including packaging, is another important scaling strategy, which may help to create/increase demand for products. This strategy may entail the improvement in the functionality, specificity and quality of products embodying circularity/zero-waste thinking. For example, Biorigen (Chile) constantly improves the composition of zero-waste toothpaste and Happy Bird embodies pet motifs on their reusable bags for sales in pet shops (cf. 7.4). Prana Sopas from Chile in turn offers returnable packaging system whereby glass jars, in which soup is being served, can be reused locally. Although such

returnable packaging could be potentially adopted by SEs offering ready meals (from surplus food) in plastic packaging, those SEs are not necessarily capable of implementing it due to complex logistical and sanitary aspects:

*“We thought about reusable packaging, but we have to think about the food safety. People getting food and somebody recycling and sending back to us means it could be contaminated. You also have to think about labelling: ingredients, allergies, instructions on how to heat the meals up. So every jar would have to have something attached to it for residents or they would have to have a sheet of paper, which they could potentially lose. And then you would have to scrape that off every time the jar came back to change the use by date and information on the meal unless it was the same. We would also have to charge those who are not returning jars”*

(Food sector SE in Hull, Interview, August 2020).

This reveals that SEs in different countries need to comply with different guidelines. In a similar fashion, the representative of FareShare Hull & Humber noted that they do not have relevant infrastructure such as kitchens in order to introduce reusable glass jars whilst claiming that such circular activities should be assigned to those who receive food products from FareShare. This is where TimeBank Hull & East Riding’s inventory of kitchens across the city that have spare capacity for cooking activities could be useful. Notably, empirical observations reveal that sEs procuring food surplus struggle to appropriately dispose packaging waste, responsibility for which should arguably be borne by food producers (cf. EPR schemes, 2.4).

In any case, SEs that strive to become financially autonomous (i.e., opportunistic SEs) are more likely to offer such returnable packaging than emergency SEs (see typology of SEs in 5.5). Stated differently, the implementation of zero-waste/reusable packaging seems to be more viable when it comes to generating money out of it by targeting well-off consumers (see Biorigen offering toothpaste in reusable glass jars and Freemet offering detergents in reusable packaging, Appendix 3). Interestingly, while the CEO of Soap from the Heart (Hull) is considering the implementation of refillable station for her soaps in her shop, the CEO of Freemet received an invitation to sell detergents in bulk to fill refillable stations in large supermarkets. Crucially, the latter SE seeks to improve (in collaboration with the glass manufacturer) the design of a universal nozzle for reusable and durable glass packaging that would replace plastic packaging. This exemplifies how some SEs take responsibility for packaging and set examples for large private companies that are increasingly called to implement EPR schemes (see 2.4).

Close collaboration with the resource providers/manufacturers is therefore often necessary to enable circularity and may be facilitated through SE partnerships with the private sector. For example, Ecocitex benefits from its partnership with NESsT (Network for Environmentally and Socially Sustainable Tourism) and IKEA Social Entrepreneurship, which provide the SE with expertise to ensure consistency and quality of its materials at scale, while also establishing relationships with industrial retailers, improving by-product management and upgrading existing machinery (NESsT, 2021).

SEs such as TECHO Chile additionally make efforts to improve the design of its houses for vulnerable individuals by offering insulation panels made from post-consumer cardboard from Tetrapak, which are obtainable through strategic partnerships with private companies (TecaPlak y Óbolo-Phoe). The SE thus acts as an important re-use operator enabling private companies to realize EPR scheme. Nonetheless, the costs of such insulation panels are greater than the available commercial options due to extensive manual labour required to produce them on the one-at-the-time basis. Olfos et al. (2020) found out that mass production of such insulation panels could reduce up to 70% of the panel production cost. Consequently, such alternative insulation solutions would be viable if private companies could offset high production costs, mass production is enabled, and if residents found them attractive. It can be argued that insulation panels, including those soon to be produced from recycled clothes (cf. Ecocitex), will face similar challenges. Interestingly, TECHO's partnership with Fundación Vivienda – another SE working in the emergency housing construction sector – is expected to further stimulate the development of the CE that could potentially incorporate construction materials such as wood plastic composite. Similarly to insulation panels such solution nonetheless remains economically non-viable, yet despite new laws requiring private companies to reuse materials. Concerning furniture, it is unlikely to furnish TECHO's houses with second-hand furniture as it is widely acknowledged in Chile that any donations, which are not associated with emergency, concern monetary donations. The SE has, however, the potential to offer furniture made by the Fundación Vivienda from wooden residues from construction sites (TECHO does instead offer community workshops on how to construct furniture). Similarly to TECHO, Giroscope offers second-hand furniture only occasionally<sup>54</sup>, yet because they need to comply with specific standards and have contracts with private companies. On the other hand, Giroscope offers its tenants corporate-funded vouchers enabling them to purchase second-hand furniture in selected charity shops (see 7.4.5iv). In

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<sup>54</sup> Giroscope runs 'The Furniture Project', which reuses and upcycles furniture that was left in their properties or donated.



contrast, Winner Ltd. – a SE easing access to housing for vulnerable women in Hull – procures a lot of electrical goods and bedding from charity shops they work with. This is because the SE does not have enough storage capacity to store donated furniture in its charity shop, yet there are many other SEs in the City doing that. It can be also noted that some SEs could improve their workshops by infusing them with CE thinking. For example, representatives from TECHO expressed interest in integrating zero-waste initiatives into TECHO's labour/capacity building/community-empowerment programmes.

Another way of improving design of a service concerns Dove House's intention to transform second-hand shops into some sort of community hubs (aka 'third spaces') where people can not only shop but also socialize. This is in line with the desire of the CEO of Eternal Benefits to run café shops while facilitating circulation of second-hand materials across the city (see 7.4.1).

### 7.2.2 Circular Diversification of Existing (circular) Products and Services

Similarly to improving existing products and services, *circular diversification* can be viewed as a way of further expanding SEs' activities. This strategy involves increasing competitiveness/social positioning of a given SE within the broader entrepreneurial ecosystem by increasing the range of offered products and services, yet in a circular fashion. For example, a SE may choose to creatively transform a consumed product and/or its by-products into a new production input to create a new product instead of simply improving the existing provision. Ecocitex (Chile) is an example of such an enterprise as it is beginning to recycle clothes not only into skeins of yarn, but also into insulation panels and furniture. Another example concerns HWR (Hull) potentially considering diversifying its product portfolio to include coffins or rulers made out of reclaimed wood. Some SEs may also invest in new resources such as returnable glass jars in order to diversify their products, an example being Biorigen seeking to upscale by offering a mouthwash in reusable glass jars. While such hygiene products need to comply with complex sanitary regulations, British charity shops are unable to expand their product portfolio with items such as toys for kids and prams due to complex safety regulations.

Many SEs also seek to diversify their products beyond their sector. For example, Recylink (Chile) is seeking to go beyond the construction sector to encompass retail and mining when linking waste with waste re-processors. Similarly, while Don Pallet (Chile) is seeking to go beyond wood to include work with plastics and glass, SEs like HWR (Hull) seek to sell compost from local urban farms. Nonetheless, the latter SE struggles to coordinate the collection of municipal garden waste for reuse with the city council:

*“It is quite hard to get working with the council, they tend to have a lot of their contracts already tendered out. So we get, now and again we get a little bit, not a lot, not as much as I would like”*

(Representative of HWR, Interview, July 2020).

Diversification of existing products may also go hand in hand with diversification of services that may constitute means to employment. For example, Hull Matthew’s Hub and Life and Loom are potentially interested in diversifying its services by offering CE workshops that would upcycling of reclaimed items such as punctured bike tyres (cf. *heidenspass* and 7.4.1i). This is even more relevant in case of Life and Loom given that the SE is located in proximity to Giroscope’s premises where the ‘Bike Repair Project’ is run.

Some SEs would be also interested in diversifying their practices to include a repair service. For example, a representative of the charity Sue Ryder noted that repairs (and painting) of donated furniture could increase sales, yet the charity shop has vacant space to do that. Nonetheless, this would also require more volunteers (who need additional management staff), yet the charity runs the shop on skeleton staff and its management structures are subject to decisions made at the higher level outside Hull due to being a franchise. The representative of Recycling Unlimited additionally highlighted that the SE used to spend a lot of time on fixing broken donated furniture, yet they struggled to get money back for it:

*“If a chair was a fiver and we’d worked on it for two hours, they might sell it then for a tenner. Well, actually we would have been better off not doing that because we could have made six pallets, planters in that time”*

(Interview, July 2020).

In contrast, the representative of HWR offers small scale repairs at customers’ request and provided that it is profitable for them. Another SE – Goodwin Development Trust – is interested in continuing to offer bike repairs as part of its workshop portfolio, yet in collaboration with a SE delivering and specializing in such workshops. On top of that, Goodwin provides space to local entrepreneurs for running a repair café. This example illustrates how some SEs in Hull seek to diversify their activities in such a fashion that they integrate complementary resources (cf. Garcia-Castro & Aguilera, 2015) to facilitate activities already being performed rather than seeking to replicate the already existing ones. It can be also noted that the SE could also collaborate with a small entrepreneur fixing bikes (‘Steve Bikes’) in order to better integrate the business into the market.

Premises are an important asset enabling product and service provision. For example, the representative of Winner Ltd. (Hull) stated, yet in reference to potentially diversifying its activities by incorporating wood upcycling workshops, that:

*“We are creating more jobs but for the CVS you also need to be mindful of expenses and something like HWR would need to have relatively large premises for the storage, meaning additional overheads. So even if you create 5 extra jobs you need to offset the cost of that as well”*

(Interview, April 2021).

Built infrastructure is hence an important aspect enabling scaling by providing storage for (circular) products and space for conducting diverse workshops (see 7.3). SEs may also let their available space to other entrepreneurs/SEs as part of helping some of them to diversify their provision portfolio and generating income by becoming landlords. For example, Giroscope (Hull) is currently refurbishing St Matthew’s church in order to diversify community activities in the eastern part of the city by providing a useful space for entrepreneurs (including those running repair cafés). Moreover, Makerspace Hull, which can be viewed as a shared fabrication space, could offer space to Age Hull UK for their craft groups (that may include CE thinking and practice). Making space available to let or rent, however, mainly helps to facilitate delivery of products and services rather than directly impacting diversification activities (see 7.4). On the other hand, it can be argued that letting spaces to other entrepreneurs enables them to lower overhead costs so that they can invest savings into diversifying their product/service portfolio. In a similar fashion, SEs such as Library of Stuff could offer equipment such as sewing machines to ROPO Design – a solo trader who could diversify her portfolio by offering sewing workshops incorporating discarded textile scraps (see 7.4.1i). By further referring to rentals, there is potential for the Library of Stuff to diversify the range of products for renting, for example by offering clothes. This is, however, contingent upon demand for respective products and any expansion of such products may be obstructed by criminal activity in specific neighbourhoods (cf. 6.4.1).

Another way of diversifying existing provision may concern offering consultancy services. For example, one food sector SE (Hull) intends to offer environmental consultancy to private companies in order to become more financially self-sufficient, ultimately reinvesting money into its local community projects. It is, however, important to ensure that consultancy services go hand in hand with the creation of awareness among private companies and individuals so that they value circular products and services. As private companies depend on the general behaviour of the economy, any failure to create such awareness places their business models at risk (Representative of Triciclos (Chile), Interview, March 2020).

Overall, diversification of existing provision is greatly determined by the availability of financial capital, which may increase proportionately to the number of sold items (see 7.4); creative potential; the availability of necessary resources; as well as demand for those new products/services.

### 7.3 In-house Growing and Thriving: Increasing the Volume of Existing Provision versus Asset Ownership

While impacts can be scaled up without SEs increasing in size, sometimes growing in size – i.e., *quantitative scaling* (Uvin et al., 2000) – can help SEs to generate more social and environmental impacts provided that available budget increases and enables to not only invest in the necessary physical infrastructure and tools but also skilled personnel. This can ultimately help to multiply beneficiaries, especially in case SEs have access to new markets and good marketing skills (cf. 7.4). Any increase in the volume of productive capital (including production inputs and saleable outputs) is not, in fact, analogous to an increase in income, which is contingent upon the volume of sales of existing provision. Yet in the context of the SEs examined, financial capital is expected to help to pursue growth understood as multiplied economic, social and environmental benefits. Growth is, in turn, expected to generate even more monetary value alongside social and environmental benefits. For example, the representative of a SE recycling waste whilst employing vulnerable individuals in Hull noted that:

*“(...) it is difficult to talk about growth within the third sector because it would be like ‘we take 200 disabled people instead of 100 disabled people’? Would it be better to take 50 people and get 25 into work than take 100 people and get 10 to work? It is about weighing the benefits. What is growth in the third sector is not what growth on a commercial side of things is. The more you grow in the third sector, the more good you can do”*

(Interview, June 2020).

On top of that, the interviewee further stated that any in-house growth should go hand in hand with a growth within a team, skills and technology, which is contingent upon the availability of accumulated capital. Nonetheless, many SEs need to make a trade-off between trying to survive and making efforts to increase the volume of their provision (in addition to efforts towards improving and/or diversifying their practices). Pursuing such scaling pathway(s) is paved with many obstacles that occur across many sectors. Crucially, yet consistent with Morris et al. (2020) who noted that one of the limitations to growing in size is the fear of growth associated with risk-averse behaviour due to experience of poverty, the vast majority of the interviewed small entrepreneurs feel obliged to prioritize their operational activities,

especially in the face of external shocks such as COVID-19, rather than trying to increase the size of their ventures in a physical sense.

### 7.3.1 Built Infrastructure: A Scalable ‘Provision’ and a Scaling Enabler versus Community Asset Transfer

Built infrastructure is one of the key elements that often accompany efforts to increase the volume of a given provision as it accommodates production, exchange and consumption processes. For example, the CEO of Prana Sopas (Chile) has expressed a desire for larger kitchen to produce more soups, while a SE in Hull likewise desires larger premises for its woodworking activities:

*“We would like to improve the business, make it bigger. There is a big empty piece of land behind here. If things continue to grow I would like us to expand and be bigger, maybe use that for storage. Make our car park bigger at the front. Get more products in”*

(Wood sector SE in Hull, Interview, July 2020).

As subsection 7.2.2 revealed, built infrastructure is an important fixed asset – a seedbed for diversification of circular SE activities and innovations. Crucially, built infrastructure can be viewed as a ‘scalable provision’ (i.e., housing), which is offered by SEs across all the case study cities, such as, for example, Giroscope, Winner Ltd., Probe, Goodwin Development Trust, Unity in Community and TECHO Chile. All these SEs intend to increase the volume of their housing provision in order to benefit as many people as possible and remain financially sustainable (the housing projects run by these SEs provide them with a significant rental income, which is reinvested into SEs’ missions and property maintenance, yet the properties comply with high living standards due to grants and agreements with the private sector<sup>55</sup>). While Giroscope and Probe<sup>56</sup> refurbish vacant urban spaces to accommodate vulnerable individuals, and by doing so train future construction workers, SEs such as Unity in Community and Goodwin Development Trust predominantly build new properties for low-income individuals by hiring conventional construction services. Nonetheless, it is unlikely that SEs would commission a building service from the SE sector due to the volume of construction needs and insurance behind large private companies. What all these SEs have in common is the fact that the offered properties meet certain sustainability standards (e.g., in terms of living conditions or energy efficiency) and can

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<sup>55</sup> An exception here constitute emergency houses offered by TECHO Chile, some of which may be of lower quality than properties offered by SEs in Hull.

<sup>56</sup> HCC once provided Probe with empty buildings for refurbishing.

be leased by other entrepreneurs, some of whom offer circular products and services (e.g., repair services). Such SEs hence act as ‘secondary social enterprises’/‘second tier’ that serve the needs of other SEs (Johanisova et al., 2013). Interestingly, Tedoy (Chile) refurbishes a derelict urban space (belonging to the local authorities) through a foundation (Fundación Espacio) with the sole purpose of having a low-cost, spacious space to run circular activities and host other entrepreneurs. The SE additionally crafted a formal contract with the foundation in order to receive a payment for refurbishing the space – something that has not taken place in Hull. The SE also does not have to pay any rent except bills (CEO of Tedoy, Interview, March 2020).

Crucially, such vacant and state-owned built infrastructure or land (i.e., *surplus public sector assets*) can be transferred, under specific circumstances, into the hands of community-oriented SEs under the ‘community asset scheme’. Asset transfer thus raises important concerns related to community ownership and management/use of assets, and in case assets are managed or owned by citizens there is an opportunity to alter mainstream development trajectories that span the market and the state in favour of pursuing alternative spatial strategies (Jarvis, 2018). Although UK national public policy has encouraged community ownership and management of assets since 2020, research findings nonetheless reveal, in line with Aiken et al. (2008), that such community ownership of assets remains rather marginal in structurally disadvantaged places like Hull. Unlike larger cities, such as Manchester, Hull does not have any specific asset transfer scheme, which could add transparency, but instead offers concessionary leases. Disposal of assets at full market value or open market process seemingly provides asset owners (public authorities) with more economic value, especially in times of austerity. For example, the representative of Winner Ltd. (Hull) noted that they purchased a number of properties from the HCC:

*“As the demand for the services grew over the years, the local authority sold us a pair of semi-detached properties where we put 100 women in each and we offered them for £1. We bought the property that we moved into from the HCC”*

(Interview, April 2021).

Nonetheless, interviews with SEs and local officials in Hull revealed that the city council has executed several community asset transfers or at least ‘liability transfers’, which imply that those properties cannot be used for profit. This includes local authorities renting their premises to communities/SEs on a peppercorn rent or transferring buildings to SEs such as Giroscope for refurbishing and at low cost in return for generating social impacts. Evaluating such impacts is, however, challenging and requires complex cost-benefit analysis. As the representative of a SIO in Hull (North Bank Forum) stated:

*“You are not getting a building for free but for what is for them [authorities] once they done the cost-benefit analysis. They may say ‘we might get this building commercially and get £12.000 per year or we let it to this voluntary organization and they will generate £40.000 of social value’ ”*

(Interview, September 2020).

Unfortunately, those buildings are usually in a very poor condition and require constant repairs. As the representative of ScrapStore Hull highlighted:

*“This is a very old building with an awful lot of problems and if we held it as an asset, it would be in the hands of trustees who would have a personal liability on it— I wouldn’t fancy that. We took it over in the year 2000 and the premises that we came from they didn’t even have electricity and heating. The council has no money and we have no money. The roof is just patched up every now and then and if you get a bad storm, water comes through. We are limping along with the boiler. You don’t need to buy the property to get funding. If you’ve got a seven-year lease you can usually obtain funding”*

(Interview, October 2020).

It may seem that property leasing from private companies tends to be more advantageous for SEs in case those private companies cover repair and refurbishing costs. Crucially, the above concerns related to energy inefficiency are all the more pressing because the City of Hull has set ambitious goals concerning decarbonisation in its *Hull 2030 Carbon Neutral Strategy*. As an official from HCC noted:

*“We are now having conversations with the North Bank Forum about how those community organizations that have those buildings could reduce carbon emissions because when we transfer an asset to community it is usually quite old, has higher energy costs and is much more expensive to repair. There is a danger that we transfer our least efficient buildings into the sector that is least able to fund its refurbishment and improvement”*

(Interview, March 2021).

Interestingly, while maintenance and repair costs of such leased properties can be high, SEs such as ScrapStore Hull rely on repair services offered by neighbouring SE – Giroscope that offers services at a cheaper rate for charities. Maintenance costs can be also partially offset by income generated from leasing rooms to likeminded individuals and art organizations (e.g., Indigo Moon Puppet Theatre). Since these organizations had no income as a result of COVID-19, ScrapStore Hull temporarily suspended their rent payments. ScrapStore Hull is thus an example of a landlord that can provide affordable infrastructure to other entrepreneurs, unlike mainstream landlords who often only think in terms of maximizing profit margins. The above

statement by the representative of ScrapStore Hull additionally implies that renting such council-owned properties does not necessarily imply difficulties in obtaining funding in case SEs can prove a long-term lease. Owning a number of assets does, however, put SEs at a significant advantage. As a representative of Unity in Community (Hull) admitted:

*“If you haven’t got assets sometimes you can fall quite easily because assets guarantee funding and revenue streams from projects coming into you. So we are looking to build 25 new properties in the area. If we want to do something big, we need to speak to a financial institution – our bank, or if someone is looking at suitability to support large projects, they will always look at your financial situation and what assets you hold to see what the long-term future and prospect of your organisation is. If you have anything less than a 25-year lease you cannot secure funding from anybody because it’s short-term investment that you might move on from”*

(Interview, October 2021).

Smaller SEs that do not own any assets (especially those in the housing/construction sector) may therefore have more difficulties in obtaining necessary funding to pursue scaling strategies and improve existing infrastructure (cf. 7.2.1). Some more established SEs, on the other hand, have managed to raise funds (from e.g., the European Regional Development Fund) to renovate buildings.

Although entrepreneurs not owning premises may be more flexible in terms of mobility, not owning any built infrastructure may impede growth of a given venture. For example, Enviromail used to rent a building from the HCC, yet at some point HCC wanted the building back. Such sudden ending of the leasing contract, and which can occur with both public and private owners, prompted the SE to purchase its own building giving it more control of its strategic assets, ultimately enabling it to become more in charge of its own destiny. Many SEs cannot, however, afford to buy a property. As one CEO of a food sector SE in Hull noted, one of the biggest challenges facing entrepreneurs in Hull is to find affordable space for their projects before they become more financially sustainable<sup>57</sup>. Crucially, some of those SEs from Hull that

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<sup>57</sup> Using an example of Hull Sisters – a SE promoting the independence and inclusion of all women from all backgrounds in Hull and East Riding – that CEO noted that the enterprise struggled to find a suitable place for their project after they were told to move out from a privately owned property.



chose to own their premises got them at a very low cost and/or for free as they were in a derelict state<sup>58</sup>. For example, the CEO of Eternal Benefits noted that:

*“It was a derelict Council property that was just being fly tipped. I don’t think we paid anything for it, but it has been signed over to us from the Council. Somebody we know working for a funding organization in London and has supported us over the years he paid for the whole building”*

(Interview, July 2020).

Interestingly, local councillors financially supported refurbishment of the charity’s premises. Nonetheless, given that the HCC is currently facing financial pressures, it is unlikely that the local authority would cover such costs on a larger scale in the future. In any case, not all SEs expressed willingness to occupy such marginal spaces, often located in crime-affected neighbourhoods, due to their potential negative impact on the organizational image.

By specifically referring to land, SEs offering food growing schemes on urban allotments in Hull tend to struggle from the fact that those allotments are owned by the local authority. While tenants of HCC’s allotments do not have to incur high insurance and security costs, there are quite a lot of allotment sites that are effectively abandoned by tenants who pay rent. This impedes SEs from enlarging their allotments and such issues remain despite legislation allowing the council to remove people assigned to such allotments (Interview with representatives from Down to Earth, July 2020; and HFP, July 2020). Interviews revealed that some allotments were subject to disposal following the infrastructural developments in the area whilst others were taken back for social purposes:

*“We used to have a council allotment for 3-4 years and then the council said he needed to bring it back into the hands of community of elderly people”*

(CEO of BAMEEN CIC, Interview, March 2021).

Such unexpected events may thus impede SEs’ in-house growth strategies around the local development of the CE.

### 7.3.2 Increasing the Volume of Production Inputs and Saleable/Rentable Outputs

Production inputs (alongside saleable/rentable outputs) are another key element whose increase can lead to the increase in the overall volume of a given provision. The research findings unravel several factors that can impact the volume of sourced production inputs and

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<sup>58</sup> Some SEs may also receive at a very low cost and/or for free land. For example, a private company - Reckitts - gifted Dove House Hospice the land to build the hospice on.

saleable/rentable outputs and hence scaling. First, market visibility and networking skills of SEs can enable them to detect other SEs (and individuals) offering necessary inputs in a given area. For example, in Hull, Life and Loom could rent sewing machines from the Library of Stuff in order to increase the number of workshops. Crucially, the Library of Stuff could increase the volume (and range – cf. 7.2.2) of their products provided that they could access relevant repair skills. At this stage the SE does not, in fact, make enough money to “*pay a member of staff, let alone repair broken things*” (Interview with the CEO of Library of Stuff, March 2021). This is where links to the broader repair community (e.g., repair cafés) could be beneficial. SEs may also exchange items/productive capital between one another, ultimately increasing the volume of their saleable products. For example, HWR borrowed woodworking equipment from the Library of Stuff in return for providing it with a space for flyers. Likewise, ScrapStore Hull once provided another SE with paint in return for textiles. Nonetheless, ScrapStore Hull ended up getting rid of the items as they were of a very low quality and this had implications on trust (i.e., *relational social capital* – cf. 3.3.6.6) between those enterprises. Some SEs may also compete for resources with other SEs, an example being *heidenspass* in Graz competing for canvas with another SE doing similar things.

In terms of the quality of donated items, Ecocitex – a SE recycling clothes in Santiago – installed several container boxes for clothes and asked donors to own stretchable clothes in order to ensure that they receive at least 50-70% of stretchable, and hence recyclable, clothes. Owing to infrastructure and awareness-raising marketing skills, Ecocitex intends to recycle 12 tons of clothes per month, yet provided that there is enough demand for outputs (e.g., yarn or new textiles). In contrast, a paint recycling SE in Hull exemplifies limited consumer awareness/poor outreach when it comes to sourcing enough paint for construction projects run by other SEs (see 7.4.5). Although the quality of some recycled items may be poor, there are relatively large volumes of other types of (donated) goods that could meet emergency and substantive community needs. For example, while charitable SEs like Hull Foodbank do not intend to expand<sup>59</sup>, nationally there is currently an exponential growth of food parcels being distributed (Interview, food SE in Hull, September 2020). The increased demand for food aid services was especially noticeable during the COVID-19 pandemic. For example, EMS’s workload tripled and the SE received significant amounts of food products for impoverished residents in Hull. Crucially, SEs that respond to urgent community needs are constrained in their efforts to expand, for example by diversifying activities, due to specific priorities.

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<sup>59</sup> Hull Foodbank offers about 5,000 parcels a year over the past 3 years.

Small size of ventures is another aspect that may hinder procurement of resources such as glass jars. For example, the CEO of Biorigen is unable to purchase jars from national manufacturers as the amount of jars they offer significantly surpasses current needs. High costs of collecting and sanitizing jars, in turn, prevent the SE from reusing them<sup>60</sup>. Moreover, the CEO of Miss Moon Reutilizables, which imports rolls of fabric from abroad, faces challenges with the shipping process that potentially impacts the volume of production outputs:

*“There is always something going on with the mail. I would love to buy a whole container to bring everything, to make everything work more like a big company, not like a tiny thing”*

(CEO of Miss Moon Reutilizables, Interview, August 2020).

Small SEs also face a much shorter time frame between when they purchase a product and when payment is due (i.e., trade credit), which reflects the greater purchasing power of large private companies. The findings reveal that Súper Justo – a zero waste shop from Viña del Mar – has only 15 credited days when compared to 120 credited days specific to large supermarkets. While this could slow down in-house growth and large private companies are perhaps seen a safer (i.e., unlikely to disappear) bet by sellers, Súper Justo is not interested in significantly growing in size as its CEOs would like to maintain a sense of ‘familiarity’ and offer more social interactions. A related constraint is the lack of necessary safety labels from manufacturers (e.g., fire labels) on products donated to charity shops, which can also negatively impact the volume of production inputs and hence in-house growth.

The size of companies from which SEs procure materials may also impact the volume of procured inputs. For example, the representative of ScrapStore Hull, which sources from private companies, noted that:

*“It is harder, it is much harder for us as such a small organisation to deal with massive companies with international headquarters because they have so many Different levels. Whereas if you are dealing with a local company that is based on Hessle Road you just give them a phone call and ask if they’ve got any waste that they want us to take off them”*

(Interview, October 2020).

Overall, only one SE interviewed did not express any willingness to expand, possibly due to older age and willingness to focus on the current aspect of its missions:

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<sup>60</sup> Freemet (Chile) does that, but laundry detergents need to meet less strict regulations.

*“People have offered us shops for free in town and I have refused. It would mean more work for us and we don’t need the outlets. If we wanted to grow, we could take this model and put it in other areas. If you came back in five years’ time, I would want things to be exactly the same as they are now”*

(Representative of Recycling Unlimited (Hull), Interview, July 2020).

In contrast, another representative of another wood recycling SE – HWR noted that:

*“We are looking at increasing our retail side, buying products in and selling things, almost building it like a garden centre type of thing. It is all about your vision and your willingness to make it work”*

(Interview, July 2020).

Such a more dynamic approach to development largely stems from the fact that HWR formed a joint venture with Dove House and is now part of an expanding regional and national network (Humber Wood Recycling) (see 7.4.2 and 7.4.3). Interestingly, the massive downturn in the British construction industry during the COVID-19 pandemic resulted in a tripling of the volume of wood collection from construction sites by HWR. This exemplifies how uncontrollable broader trends in economics may influence the volume of available production inputs.

*i. Social-circular Public Procurement: Re-use Enterprises*

Social public procurement differs from conventional procurement in that the buyer ensures that procured goods and services create benefits for people, stakeholders and society as a whole (cf. 2.4). This research conjoins the concept of social procurement with the concept of circular procurement, the latter indicating clients using their purchasing power to *“close energy and material loops within supply chains while minimising any negative environmental impacts or waste creation across their whole life cycle”* (Zero Waste Scotland, 2021). Exploring social-circular public procurement contracts in the context of SEs’ in-house growth strategies is relevant because such contracts can enable SEs to capture potentially reusable items from local authority-owned household waste recycling centres; ultimately helping them to increase the volume of their production inputs/saleable outputs.

For example, Re-run – a charitable SE in Hull – is allowed to collect from the Humberfield Household Waste Recycling Centre reusable bulky items (that were originally collected from households by the municipality to prevent fly tipping) in return for lowering municipal waste management fees and helping to relieve poverty through the provision of essential items to low-income individuals in the city. The SEs also has a free disposal access to household waste recycling centre in order to get rid of un-reusable/unsaleable items. Another example concerns

a joint (municipal waste management) contract between HCC, FFC Environment (a large international waste management company) and Dove House Hospice (a local charity with a well-established second-hand retail). Once potentially reusable items are segregated in Humberfield Household Waste Recycling Centre by FFC Environment, Dove House transfers any reusable items (e.g., electricals) from the site to one of their Re-Use Shops in East Hull<sup>61</sup> where some of these items may be subject to minor repairs (the SE does not have any capacity to do major repairs). Any unsold and non-functional items are diverted back to the household waste recycling centre. While HCC offers Dove House a free disposal access to household waste recycling centre, the charity is obliged to incur any transportation costs:

*“Quite often we might be used in place of a council service because we are free, but if that item then doesn’t pass its tests, we have to pay to get rid of it. If we weren’t here, there would be a lot more going to landfill because we are trying to repurpose as much as possible. But there are some things we simply cannot recycle or resell and we have to then pay for their disposal. So, if a customer directly had taken it, they wouldn’t have paid, but because it has come through us, we then have to pay and that can seem a little unfair (...) If we cannot sell in one shop, we then send it to one of our other charity shops. If it doesn’t sell FFC Environment have to track it back and send it back to the recycling centre it came from”*

(Representative of Dove House, Interview, August 2020).

The above statement implies that SEs should ideally be able to check functionality of a given captured electronic device on-site as this could enable them to reduce economic/environmental costs. It also informs that private waste management companies have strict stock tracking procedures, which are not necessarily environmentally friendly and should be discussed in future contracts with re-use SEs. Moreover, many of the disposed items, including those that directly end up in Dove House’s shops, come from outside Hull:

*“Dove House have got a big sorting operation in the city and multiple outlets; they get waste from Hull, East Riding, Doncaster and further afield and Hull becomes a disposal hub for waste across the East Riding. They sort it and take out all the value and give us financial liability of what is left over and a lot of it is not Hull’s waste either. We are really keen to support local charities and we do what we can, but we aren’t a bottomless money pit”*

(Local authority from the HCC, Interview, March 2021).

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<sup>61</sup> This shop is co-owned with HCC.

There is thus tension when it comes to shifting financial liability from other SEs and local authorities in the region, especially given that HCC is facing austerity. Linked to this, a local authority expressed an interest in seeking collaborative relations with other local authorities across the region:

*“It would be good to get the economies of scale and have a recycling centre in Hull; and have Hull’s and East Riding’s waste all going to the same place”*

(Interview, March 2021).

Such localised recycling could potentially enable to better capture individual waste fractures that could serve as inputs for another production cycle in SEs or another SE-enabled consumption cycle. It would also ideally have well-experienced staff members that could effectively capture any reusable waste (cf. 7.3.3). For example, the representative of Dove House noted that:

*“One of the challenges of this new project that getting enough stock to stay in the Re-use shop at the minute is quite difficult because it is really popular, people want to buy them, but there is not quite enough coming through yet. Diverting relies on the on-site workers and it is new to them, and they are not our staff so they have to ask the chap in the car: ‘Is that fridge still working?’ and if yes they ask him to ‘put it over here instead of over there’. So, if we don’t intercept them before they put it in the container where it is marked for waste, we can’t resell it even though it might be a wonderful fridge and someone else could have got benefit from it”*

(Interview, August 2020).

Moreover, the creation of such a large-scale regional recycling/reuse centre would require extra strategic coordination efforts with a number of different actors at different scales. Crucially, most contracts between local authorities and commercial waste management companies (which recycle waste outside the city) are long-term (5-10 year-long in case of HCC), and negotiating them, so that SEs could capture potentially reusable items from a particular waste stream (whilst sharing costs with them), is challenging. As a local authority from the HCC noted:

*“When you are tied into a big long-term contract it can limit your creativity unless you are really proactive and there is flexibility within the contract”*

(Interview, March 2021).

Similarly, the representative of the Community Re-paint (UK) – a SE reusing paint – reported contractual obstacles when working with commercial waste contractors:

*“They didn’t keep to their share of the bargain; they didn’t do what they said they would do; and they wouldn’t acknowledge that there were people trying to put barriers up so the scheme had to be closed. It often comes down to individuals who should be enthusiastic and willing”*

(Interview, August 2020).

Congruent with the concept of conditional cooperation (Laland et al., 2000; 3.3.6.1), the above case illustrates how cooperation is doomed to collapse in case conditional co-operators are surrounded by too many rational egoists (Ostrom, 2000).

Crucially, large commercial private waste management companies are primarily oriented towards recycling rather than reuse practices, the former enabling them to capture more economic value. Linked to this, a local authority at HCC, when asked about commissioning a Community Re-paint scheme to allow it to procure reusable paint from the waste recycling centre, noted that:

*“It is about ‘bang for your buck’; and while it might not achieve much from a waste management perspective, and it may instead tick other boxes – close a loop, provide jobs and do something else from a social value perspective, we might be interested. How interested our FCC would be is another matter. It is about how much space we have got and how much time it takes. They [FFC] have got performance targets based on recycling rather than a reuse target as such. We could talk with them about it, but I can’t imagine that there will be necessarily jumping from the rooftops about it”*

(Interview, March 2021).

While FCC was already required to provide a reuse provision as part of the contract, any outsourcing of particular waste streams and associated reuse practices to other SEs is thus unlikely to be economically viable unless new contract specifications are negotiated with private companies. In a similar fashion, a SE refurbishing bicycles – R-evolution – is unlikely to receive bicycles or any bike components from the waste recycling centre unless local authorities successfully negotiate new contract specifications with private companies. As a local authority at HCC noted:

*“R-evolution asks us about bikes and unfortunately that is the scrap metal value so it is something we would need to revisit in any future procurement [contract]”*

*because in Hull you have got a demographic that has a big market for lower value and repurposed goods”*

(Interview, March 2021).

If successful, contracts enabling SEs to capture more waste could help local authorities to reduce municipal waste disposal costs (whilst generating social value elsewhere in the system), especially given that the prices of recycling waste and virgin materials are subject to fluctuations. Linked to this, the representative of Community Re-paint highlighted that:

*“Private waste management companies are charging more because they are a commercial business, whereas our schemes do not have a commercial rate. Therefore, in our scheme in Bradford they will work with six recycling centres and they will get paid for that but the charge they make to the local authority is much less than a big company”*

(Interview, August 2020).

Interestingly, capturing bicycle parts from the main waste stream could additionally help the city to meet carbon neutral targets proposed in Hull 2030 Carbon Neutral Strategy.

Contract negotiations underpinning collaborative procurement processes, and which would advocate for more involvement of re-use SEs in waste management, could be more successful in case there was a more advanced recycling infrastructure in the city.

### 7.3.3 Increasing the Volume and Productivity of (skilled?) Labour

Enlarging a (skilled) workforce usually follows the ability of a SE to increase production inputs, outputs and ultimately sales. Nonetheless, many SEs are trapped in a vicious cycle as they struggle to sustain and/or hire (more) employees due to the lack of a steady and/or substantial income from trading activities. For example, Rincón del Pallet (Chile) – a SE upcycling reclaimed wood – would like to have a bigger and skilled work team so that the SE could produce and sell more products (ideally in other parts of Chile, cf. 7.4.1), thus recycling more. This could ultimately enable the SE to offer good wages to workers and run more workshops for disadvantaged children (see 7.4.1i). The SE, does, however, struggle to hire more people due to insufficient income and, in result, seeks external grants to do so.

While some SEs rely on volunteers to lower the overall costs, it is difficult to find committed and long-term volunteers as they generally do not have enough time and skills to produce high quality products and require a coordinator/mentor. Some SEs seem to even choose to trade their financial autonomy, and hence ability to hire extra workshop staff (e.g., to equip young



people with furniture refurbishing skills) and improve management structures, for their willingness to help more people by offering furniture free of charge:

*“As far as I know we’re the only people that you could probably get £150 worth of furniture from and not pay anything”*

(CEO of Eternal Benefits, Interview, July 2020).

The CEO of Eternal Benefits further noted that:

*“The most difficult thing for us comes to funding applications and we always want very secure management but in an area like this it is not easy to find managers with organisational, leadership skills or accounting skills. Furniture recycling doesn’t happen because I’d have to manage it and I don’t have time. And when you employ people to do that your wage bill goes up massively. We run everything for £40,000 last year – most organisations would pay for my position as the senior manager £40,000. And if we employed a manager for £25,000, it doesn’t guarantee they’ll be able to do a very good job anyway”*

(Interview, July 2020).

It could be, however, argued that retired entrepreneurs who have more free time and teaching experience could possibly volunteer to work for financially stretched SEs (thereby representing *linking social capital*, cf. 3.3.6.6)<sup>62</sup>. Consistent with Putnam et al. (1993), SEs may also employ family members to lower transaction costs<sup>63</sup>. Nonetheless, yet contrary to Fafchamps (2000) who noted that kinship ties to partners (i.e., *bonding social capital*) may reduce uncertainty, such kinship ties do not guarantee that those individuals would be able to effectively perform a given task.

The findings further reveal that SEs may improve their management/leadership competences, which could help to increase the quality of labour (with possible repercussions on the quality/volume of the activities performed in venture), by working with the private sector. For example, the representative of Winner Ltd. from the housing sector noted that:

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<sup>62</sup> The representative of Community Re-paint UK noted that such schemes are successful when they are run by retired people who are committed to a mission, have a good pension and a lot of free time (Interview, August 2020).

<sup>63</sup> For example, Súper Justo is run by twin sisters; Prana Sopas is run by two sisters and mother; Miss Moon Reutilizables is run by friends; and Ecocitex and Travieso are family-run businesses (at least for the time being).

*“Another thing we are consciously doing is upscaling some of our team leaders who may come up to the point of using colleagues from the private business for a skill swap or skill sharing”*

(Interview, April 2021).

Moreover, Ecocitex – a SE recycling clothes in Chile – has forged partnerships with private investors (IKEA Social Entrepreneurship) that train their personnel in the manufacturing process and implement employee training guidelines, among other benefits (see 7.2.1). Nonetheless, such knowledge exchange and training would require SE managers to have enough time to interact and learn. Many SEs thus choose to rely on external funding to expand employment opportunities. There is, however, a fine line between intending to grow and offering both fair (and affordable) prices for products and remuneration. For example, while zero-waste shops such as Súper Justo (Chile) employ principles of just commerce so that suppliers and vendors receive good prices for the products, other SEs such as Recycling Unlimited (Hull) had to close their shops due to their inability to satisfactorily remunerate shop vendors. Interestingly, the CEO of a Biorigen (Chile) admitted that she does not intend to grow too big and *“be rich”* but she would prefer to, instead, *“give employees the opportunity to employ other people to make it worth it in case they have knowledge on the CE”* (Interview, March 2020).

The founder of Miss Moon Reutilizables (Chile) noted that she would like to create a business community around the SE so that she could interact with other people (she is currently working from home with 5 other team members) whilst increasing the SE’s production outputs (i.e., reusable sanitary pads) due to increasing demand. While bringing everyone into one space could be challenging and time-consuming (all the employees work for Miss Moon Reutilizables on a part-time basis and have busy family life), a more social environment could boost productivity (cf. Sumiyati, 2016). In a similar fashion, a solo entrepreneur from Hull – ROPO Design – would prefer to work in a shared space with other entrepreneurs due to feelings of loneliness. An exception here concerns an entrepreneur from Happy Bird who is happy to work from home. Another way of boosting productivity among employees may be tied to empowering them by increasing their autonomy. For example, the CEO of Plastic LUP intends to empower artisans to be able to produce plastic fibres by themselves and sell the end products by themselves. Following Achleitner et al. (2014), in this case scalability is relatively high because the service can be delivered by the target group itself/individuals who are not employed by the SE (when compared to lower scalability in case SE employees provide the service).

On the one hand, no increase in the volume of productive capital (including production inputs and saleable/rentable outputs) will not result in in-house growth and render positive social, economic and environmental impacts unless there is enough demand for a given provision. On the other hand, if there is enough demand but not much productive capital, a SE could potentially increase its productivity to meet the demand with the same input. I will now explore a number of scaling strategies, which help to attract more customers/increase demand.

#### 7.4 Scaling out and deep: Improving the Delivery of Circular Provision ('Socio-spatial' Scaling)

This subsection explores a number of key (socio-spatial) scaling strategies aimed at improving the delivery of products and services (i.e., value redistribution) across variegated social and spatial contexts in order to generate and/or increase impacts across three dimensions. Based on research findings, such circular 'scaling out' strategies are aimed at (1) **increasing the number of beneficiaries/customers** impacted by a given, and potentially innovative, product or service (i.e., expanding coverage, possibly across different geographies); (2) **reaching more beneficiaries/customers in a more efficient manner** via better distribution channels (including better referral system); and (3) **reaching beneficiaries/customers in a more profound manner** (i.e., 'scaling deep' – cf. 3.2iii) via relevant 'market makers'. Such scaling strategies are associated with spaces of exchange and to some extent help to create market/demand for a given (circular) provision<sup>64</sup>, hence (in)directly opening up opportunities for in-house growth (7.2 and 7.3) and providing a given SE with a life sustaining value. As Chapter 6 revealed in line with Tabbaa et al. (2013), the uncertainty over government funding and competition among SEs for funding, in fact, imply SEs' heightened need for improving their trading arms and hence pursuing 'scaling out and deep' strategies.

In order to account for a diversity of scaling strategies associated with (re)distribution of value, it is important to acknowledge markets as socially and spatially differentiated (Peck et al., 2020). Such approach to markets (and marketization) depicts them as heterodox and performative spaces, which embody practices and relations between human and non-human/non-material agents. This subsection explores how markets capitalize and could capitalize on non-material and material assets (i.e., the broader infrastructure) in order to increase market penetration in a circular fashion. It reveals, in line with Brendt and Boeckler (2020:70), that markets are effects of heterogeneous networks and reflect the coexistence of

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<sup>64</sup> In addition to demand-creating improvement and diversification of provision – 7.2.

variegated competing positions, market and non-market logics, as well as state, market and local communities.

#### 7.4.1 Hub-and-spoke Model: Circular Satellites across the City and Country

Findings reveal that many SEs, especially those studied in Hull, follow or would like to follow, a hub-and-spoke model whereby they keep their 'headquarters' in a specific geographic location where they may perform some of their activities (associated with spaces of production and exchange), yet to some extent operate (or wish to operate) from different premises/vacant urban spaces, for example village halls, churches or local cafes (cf. 7.3.1). Those premises may be either privately or publicly owned and are spread across the city, thus enabling SEs to reach diverse groups of people on a larger scale. For example, the representative of Goodwin Development Trust indicated an interest in providing infrastructural support to SEs so that they could replicate circular initiatives in particular neighbourhoods, especially those inhabited by Goodwin's beneficiaries. Overall, findings reveal that circular SEs tend to pursue such a model when (1) selling/offering goods in shops (or community fridges in case of food aid) across the city/region/country/abroad; (2) offering construction/repair/rental services across the city/region/country; (3) running cafes/social events across the city; and (4) offering educational/empowering workshops across the city and country (see 7.4.1i).

In Chile, SEs such as Freemet or Prana Sopas have agreements with (predominantly 'alternative'/'ecologically oriented') shops across Santiago and, in case of Freemet, across the country at large. Nonetheless, when it comes to ensuring that Freemet's refillable packaging is returned to the SE, the SE needs to seek partnerships with other shops and shipping companies across the entire country in order to collect and send packaging back to Santiago; or consider franchising its model (7.4.2) so that shops in different part of the country could locally collect, clean and refill the packaging. Negotiating agreements with shipping companies is, however, a lengthy process and it took the SE one year to enable collections of Freemet packaging within Santiago. The limited recycling and reuse infrastructure, and hence environmental awareness, across Chile likewise require extra efforts in collaboration with local municipalities to promote the culture of reuse. For example, despite marketing efforts, Freemet reuses only 20% of the packaging it generates.

Rincón del Pallet is an example of another SE intending to access other shops in the wider region (in addition to opening his own shop in Santiago) in order to increase sales and ultimately grow in size. Crucially, joining other, 'non-mainstream' shops is much cheaper than incurring the costs of selling products in mainstream supermarkets or shipping them to remote parts of Chile. Nonetheless, many SEs in Chile, unlike SEs in Hull, are also interested in selling

their products abroad in addition to creating franchises (see 7.4.2). This largely stems from associating such international presence to enhanced brand image. Moreover, entrepreneurs offering hand-made products (e.g., Emporio Natural from Santiago) have an opportunity to attract more people by selling hand-made products, which are becoming increasingly popular in Chile, at art fairs. As the CEO of Emporio Natural stated:

*“It would be offensive to me to sell my cosmetics in a pharmacy. I would like to sell them at artistic events because each of my products comes with its own history and philosophy”*

(Interview, March 2020).

Another example concerns Plastic LUP, which sells its hand-made laundry baskets through Freemet. Crucially, such products could be also linked to the tourism sector. For example, the CEO of Rincón del Pallets noted that there is an opportunity to collaborate with a local hotel and offers local artisans a space for selling their products in addition to distributing them across the country. In so doing, a certain amount of income from sales goes to the artisans.

Findings from Hull reveal that many SEs offer shelf space to other SEs, especially solo traders, who design circular products as a hobby on a small scale. While owners of those spaces charge other SEs for such a service and attract more customers by diversifying a range of offered products, small traders can increase their market penetration and do not have to incur the costs of running their own shop. Nonetheless, reliance on other SEs to sell their products implies that those sales depend on the marketing skills and organizational structure of hosting SEs. High commissioning fees charged by the hosting SEs also tend to discourage many entrepreneurs who subsequently switch to online sales unless they can negotiate lower fees through a trust-based and informal dialogue. Mainstream stores may, in turn, require a number of same-looking items. As the CEO of ROPO Design noted:

*“I cannot provide them with so many items of the same colour because I don’t have that many fabrics - I cannot choose fabrics from the factory. I cannot say I have 50 of that colour and 20 of that colour”*

(Interview, August 2020).

Dependence on other organizations may additionally delay delivery of particular activities in case tools/premises suddenly become inaccessible. For example, EMS’s income from ready meals was reduced during the COVID-19 pandemic as some of the community fridges with ready meals were inaccessible due to the closure of premises in which those fridges were located. Moreover, given that such community fridges involve high maintenance and

monitoring (of food safety) costs, their scalability is often contingent upon corporate funding and hence negotiation/bid-writing skills.

Another contested issue concerns social supermarkets, which sell donated food surplus at low cost to vulnerable individuals. For example, EMS recently opened three other social supermarkets in a deprived parts of the city after receiving external funding. While such supermarkets reflect the capacity of communities to self-organize in the face of food poverty (cf. Blake, 2019) and are supposed (1) to offer consumers variegated food products, and (2) empower vulnerable people by providing them with new work placements (e.g., as sales assistants), the reliance on food donations only symptomatically addresses the issue of food poverty. Such social supermarkets may be also compared to ‘the second tier supermarket system’, which is characterized by high carbon footprint (cf. 5.3.1). Understanding the broader socio-economic and institutional contexts in which SEs are embedded, including the neoliberal context examined by Blake (2019), is thus necessary to uncover any potential unintended consequences associated with expanding/replicating certain activities across different spatialities. Interestingly, Dove House is unable to open more shops as they are limited in space to expand (see Chapter 6). Consequently, the charity is considering increasing income from their existing shops by (1) offering homecare services, which would be more visible in local communities, (2) offering expensive vintage clothes, and (3) asking volunteers to do some sewing activities/fixing clothes from home (cf. 7.2.1). Nonetheless, that latter option may raise several ethical issues such as unpaid work and inability of volunteers to socialize.

Other SEs in Hull intend to collaborate with local community centres and youth clubs in order to ease access to their rental service across the city (e.g., Library of Stuff). However, such SEs might need to adjust rental prices to reflect the average incomes of households in the respective neighbourhoods in order to benefit as many residents as possible. In a similar fashion, Makerspace Hull intends to replicate some of its activities (in addition to implementing upcycling workshops) across a number of libraries in Hull. Nonetheless, in addition to potential lack of interest in such spaces especially among poor communities, running such spaces requires compliance with complex procedures and policies due to health and safety implications, for example when it comes to work with STEM (Science, Technology, Engineering, Mathematics) machines. Interestingly, when asked about the key resources needed to realize their desired vision of the future, the CEO of Makerspace Hull noted that:

*“This is where my brain splits in half because my boss would be saying the financial, but I think having the right, trusted partners because they would bring*

*the others and we would have the right products and spaces that we could use and bring others with it”*

(Interview, July 2020).

Replication of such spaces across variegated spatial contexts is thus likely to be contingent upon respective demographics, procedures and networking capacities (see Chapter 6).

Concerning cafés/social events, the CEO of a charity SE in Hull noted that he would be interested in encouraging other churches in Hull to run a social café whilst creating a favourable, friendly and digitally-enabled environment for circulating second-hand furniture across the city:

*“Other cafés in other churches would not necessarily have to do the furniture because now with the virtual networking we could virtually connect to here. We could show them what we’ve got through an iPad, or we could deliver some of our furniture into their building. If people have travelled, then they can have a drink or just have rest. It’s about looking after the whole person rather than just giving away a piece of furniture”*

(CEO of Eternal Benefits, Interview, July 2020).

Overall, there is considerable potential to increase the *trialability* of social-circular innovations (cf. Rogers, 2003 in 3.3.6.5) by re-using vacant/under-utilized urban spaces. These may include open public spaces such as parks where a number of activities such as clothes swaps could be organized. This could help to create the ‘demonstration effect’ whereby the more citizens visibly engage in CE practices in public spaces, the more others would be encouraged to engage in such practices themselves.

*i. Creative workshops and trainings: towards creative geographies and communities of circular making?*

Interviews in Hull revealed that many SEs run their (circular) workshops in different parts of the city by capitalizing on existing community infrastructure so that diverse groups of people can be reached. For example, ScrapStore Hull employs freelance artists who run creative workshops (incorporating second-hand items) for children across the city. Down to Earth in turn runs food growing and composting workshops in schools around Hull whilst building teachers’ confidence to run similar sessions. In addition to owning a number of charity shops across the city, Dove House with its subsidiary HWR, uses Hull prison as a ‘satellite’ in order to run ‘Rework’ project enabling prisoners to gain wood upcycling skills, ultimately helping to reduce reoffending. Since Makerspace Hull is also seeking to upscale across Hull libraries, yet there is a library service in prison, it could be argued that the SE could offer training workshops in prison (e.g., STEM-related trainings). Other SEs such as Matthew’s Hub or Age

Hull UK are in turn interested in running upcycling activities in community centres and youth clubs.

CE-related workshops can be also run in impoverished neighbourhoods in order to address hygiene poverty in those areas. For example, the CEO of Miss Moon Reutilizables (Santiago) is interested in teaching (via community centres) women living in poor areas on how to make their own reusable sanitary pads whilst teaching them about their bodies. Given that many Hull residents are requesting sanitary towels from charities (e.g., EMS), there may be also potential to engage local makers and women (e.g., ROPO Design) to (co-)produce such towels whilst generating new local employment opportunities (see 7.5). Overall, while recycled products are largely unaffordable among low-income communities, those communities may be more interested in learning how to make such objects (CEO of Rincón de pallets, Interview, April 2020).

There are several key factors that may affect effectiveness and outreach of such workshops. First, the vast majority of SEs have limited financial resources and need to seek external funding to cover workshop costs. For example, Makerspace Hull is seeking corporate sponsorship to cover membership costs for young or disadvantaged people who could otherwise not afford them. Other SEs such as Don Pallets or Emporio Natural have their workshops for disabled people financed by municipalities and community organizations. Second, the availability of resources and potential cultural/mental barriers surrounding a given object 'in the making' may impact scalability of such workshops. For example, Miss Moon Reutilizables (unlike ROPO Design) does not have access to rentable sewing machines to make sanitary pads and some women in poverty may be potentially unable to properly take care of such pads while being ashamed of hanging them on a washing line (Interview, August 2020). Low demand for such items may likewise impede workshop scalability unless good marketing skills are in place. For example, only certain groups of people may enjoy workshops incorporating second-hand upcycled materials such as yarn derived from second-hand clothes (Representative of Life and Loom, Interview, November 2020). Third, complex sanitary regulations may discourage SEs such as Soap from the Heart (Hull) or Biorigen (Santiago) to make zero-waste hygiene products in locations other than the laboratory. Fourth, a number of SEs do not have enough time to: (1) organize workshops; (2) build trust in case externally hired individuals (e.g., freelance artists in case of ScrapStore Hull) run workshops so that they do not damage SE's reputation (cf. Adler & Kwon, 2002); and (3) do networking in order to access necessary resources and infrastructure (e.g., Cat in the Sack). Under the above circumstances, some of such more established SEs, for example Freemet, may, in turn, reach poor communities by occasionally donating them their products (e.g., laundry detergent via TECHO



Chile). Interestingly, while creative workshops can boost associational life and exemplify how 'making is connecting' (Gauntlett, 2011), some of such in-person workshops are increasingly becoming digitized and may be substituted by DIY kits. For example, Plastic LUP and Ecocitex offer DIY kits that include 'circular' items (i.e., recycled plastic filaments and yarn from recycled clothes respectively) and may evoke makers' sense of pride in their ability to produce something of high quality (Gauntlett, 2011). Such DIY kits are, however, likely to remain accessible only to certain demographics.

Provision of training (alongside economic incentives) for artisan communities and in collaboration with NGOs (that work closely with those communities and funding bodies – cf. *linking social capital* in 3.3.6.6) represents another way of following the hub-and-spoke model. In empowering artisan communities across the country by equipping them with skills, knowledge and tools necessary to sell their products directly to customers (i.e., bypassing the profit-driven middleman), the SE is capable of reducing its financial reliance on corporate/public sponsorship and strengthening its brand, ultimately increasing its negotiating power on the market. The SE thus acts as an enabler and builder of the broader recycling ecosystem wherein artisans (1) locally source production inputs (e.g., recycled plastic) to produce circular items of high quality, and which can directly reach customers, and (2) pass their newly gained knowledge onto fellow artisans. As the CEO of Plastic LUP noted, the impacts generated by such SEs often "*have more to do with the networks that they are building than the amount of [for instance] plastic it recycles*" (Interview, March 2020). Hence scaling strategies are crucial for widening the social impact of CE projects (cf. 7.3).

#### 7.4.2 Social Circular Franchising

This research proposes the concept of *social circular franchising* to denote strategies adopted by SEs to replicate and expand their spaces of production, exchange and/or consumption across different geographical scales in order to maximize the delivery of social, circular-environmental and economic values<sup>65</sup>. Examples from Hull reveal that a number of SEs is subordinate or at least linked to their central organizations operating at the national level, and this has implications for the CE development at the local level.

For instance, Humber Wood Recycling (HWR) is one of the 30 franchises (operating across the country) of the National Community Wood Recycling Project (NCWRP), which offers support to

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<sup>65</sup> Following Webber's (2012:21) definition of franchising, "*franchisors must establish successful and replicable business models or formats (the system) that can be and are identified by unique brand names, trademarks, service marks and/or trade names*" (see also 3.2ii).

its franchises without the need for external funding<sup>66</sup>. The representative of HWR noted that the NCWRP provides an access to a number of private companies to source wood from:

*“If any of those hundreds of national companies are doing a build within our region, they [NCWRP] will automatically contact them and the site manager about us collecting their waste wood.”*

(Interview, July 2020).

While HWR is, in turn, obliged to pay the NCWRP a percentage (aka commission) of the work they refer to them, this is not regarded to be a disincentive because:

*“(…) being a small company, it is hard to get work and get a foothold with established big companies. And there is a lot of work we are already doing ourselves – marketing, cold calling, looking for potential leads.”*

(Representative of HWR, Interview, July 2020).

Some central organizations such as FareShare may, however, offer production inputs/saleable outputs directly to its franchises or SEs associated with them (i.e, food surplus to FareShare Hull & Humber). They may also facilitate flows of knowledge, expertise (including IT and legislative support) as well as flows of money from large funding pots:

*“Benefits of being part of Age UK national far outweigh the bad things. The national charity is able to win and share big pots of funding from the National Lottery and we are too small to go to apply for such large funds”*

(Representative of Age Hull UK, Interview, October 2020).

Crucially, the majority of franchises are autonomous organizations that can locally circulate money earned from their trade activities. Some charities belonging to national chains such as Sue Ryder or Age UK<sup>67</sup> are, however, obliged to circulate generated money via national circuits of capital with negative implications for the local development trajectories. Sue Ryder in addition exemplifies how ties to a central organization may obstruct SEs’ capacity to innovate with local organizations or do infrastructural repairs due to the need to undergo complex verification/reporting processes through many centrally-based departments. In a similar fashion, HWR, which is additionally a subsidiary of Dove House Hospice, is subjugated to a

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<sup>66</sup> The NCWRP become financially independent upon marketing the service to building companies through The National Builders Collection Scheme.

<sup>67</sup> Age UK is distinct from Age Hull UK, which runs activities for Hull residents.

complex hierarchy of command, which may slow down innovations. This is in stark contrast to another SE upcycling pallets – Don Pallets from Chile, which has one franchise in Spain and only one manager. Don Pallets does not have, however, much capacity to significantly grow in size and run work insertion schemes the way HWR does through its long-term partnerships. Interestingly, joint decisions made by central organizations at the national level may have implications for cooperation between SEs (tied to those central organizations) at the local level. For example, The Trussell Trust and FareShare signed a national agreement obliging them to provide fresh produce to people in immediate crisis, and which resulted in the localized cooperation between Hull Foodbank and FareShare Hull & Humber.

Representatives of *heidenspass* - a SE from Graz (Austria) - expressed difficulties in their attempts to franchise their upcycling workshops (that employ vulnerable young individuals) to other cities (in search of new markets<sup>68</sup>) because:

*“(...) here at heidenspass we have a very different spirit. The way we treat our young employees, the concepts we are trying to work with - it has a lot to do with a free spirit. It is difficult to scale this kind of soft skills. It is not a problem to replicate organizational structures but if you try to replicate the heidenspass spirit, then it is very difficult”*

(Manager of *heidenspass*, Interview, May 2019).

Consequently, the SE chose to upscale by diversifying their circular practices/production inputs within the existing premises, in addition to passing knowledge to students in different places and cities.

Overall, findings are consistent with Daniele, Johnson and Zandonai (2009) who noted that franchising should not infer top-down control and centralized governance, but should be, instead, presented as a process of *“local capacity building”* (page 165) whereby underutilized local assets are collectively leveraged.

### 7.4.3 Two Heads are Better than One: Social-circular Joint Ventures and Co-venturers

Findings reveal that many entrepreneurs, especially the small ones, are interested in forming joint ventures with other SEs. Consistent with Roos et al. (2014), such joint ventures may be characterized by shared ownership, shared risks and shared governance among two or more entities. The generated intangible benefits can be referred to as ‘untraded interdependencies’

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<sup>68</sup> There is more than one social project that involves sowing bags in Graz - the environment is hence rather competitive.

(Storper & Walker, 1989). Crucially, the formation of such joint ventures can impact the development of circularity at the local scale. For example, in joining other SEs, SEs interested in CE practices can reduce their overhead costs and even have better access to funds in case one entity is a well-established organization. Any economic gains from such an agreement can be then spent on efforts to promote circularity (e.g., HWR, being a subsidiary of Dove House Hospice, can access a pool of funds in case they need new staff or tools). SEs may also pursue joint ventures to improve publicity, access new markets and gain scale efficiencies by combining assets and activities. For instance, while HWR can sell upcycled furniture in Dove House's shops, Community Re-paint has benefited from Groundwork Hull by having improved marketing and access to other skills and knowledge. Such joint ventures thus offer a safety net to the less established entities within a partnership (cf. 6.3.1). As the representative of HWR noted:

*"A lot of the small SEs work totally with volunteers and when they have gone with COVID, a lot of them might struggle. Being part of the national community wood and with the hospice backing, we are much safer. I can't say 100% safe, but we are in a good position"*

(Interview, July 2020).

Entrepreneurs may also form temporary partnerships for the purpose of carrying out a particular (circular) project. Such 'co-venturers' are exemplified by the representative of Life and Loom who is seeking to run workshops incorporating weaving with plastic altogether with Groundwork Hull. Some SEs may also share training costs. It is, however, vital that two entities complement one another. For example, the CEO of Miss Moon Reutilizables - a SE selling reusable sanitary pads - noted that she would be interested in running a joint venture with a SE selling reusable beeswax wraps. Despite the benefits of running such joint ventures, the less established SEs tend to deal with a hierarchy of command (cf. 7.4.2). There is also a visible power imbalance related to applications for funds whereby organizations applying for funding *"are owned by the funders"* (Representative of HFP, Interview, July 2020).

Interestingly, the representative of a well-established charity retail in Hull expressed an interest in opening a large department/destination store that could accommodate a number of charity shops representing different SEs, and which would share rental expenses and offer customers a more experiential shopping experience:

*" (...) it doesn't have to separate out so much because your tills can tell, if you barcode your items and it goes through someone else's till it wouldn't matter because the money would get credited back to the right charity"*

(Interview, August 2020).

It could be, however, noted that the complex management structures of some of the charities could prevent them from forming such joint ventures. On the other hand, such a large destination store could help to increase the overall sales:

*" (...) We don't want to neglect those smaller ones because they are still raising a lot of money. But sometimes we are amalgamating smaller ones into a bigger one, for example we have like a ten thousand square foot furniture shop that raises us the most money in a year"*

(Representative of a well-established charity retail in Hull, Interview, August 2020).

Selling large amounts of second-hand items will not, however, solve the problem of textile waste generation unless educational campaigns are in place so that customers could avoid buying new items altogether. Such a large destination store could also become the so-called 'community resource hub' (Bridgens et al., 2018) wherein people and SEs could freely exchange necessary knowledge, skills and resources (including tools).

#### 7.4.4 Circular Spin-outs

Another way of scaling in order to reach more beneficiaries concerns spin-outs, aka spin-offs, which imply *"the creation of an independent entity through the sale or distribution of new shares of an existing business/division of a parent company"* (PKF International Ltd, 2016:321). From the CE perspective, Triciclos is an example of an enterprise intending to develop spinoffs incorporating *"a recycling index software, inventory and a Triciclos app that can run e-commerce pages"* (Representative of Triciclos, Interview, March 2020)<sup>69</sup>. Given that SEs like Triciclos could receive equivalent shares from such spin-outs, shareholders could then choose to buy and sell stocks independently.

#### 7.4.5 Scale or Scope? Communication Tools and Mechanisms in Circular Ventures

Apart from scaling processes that largely capitalize on existing premises, the research findings demonstrate the importance of marketing capabilities contained within a number of communication tools and mechanisms that further enable SEs to prompt consumers to view 'circular products' as products characterized by a *relative advantage* (cf. Rogers, 2003 in

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<sup>69</sup> Another example, which is not related to the CE, concerns nurseries run by Dove House Hospice.

3.3.6.5). In interjecting sustainability standards into local communities, relevant marketing tools thus help to build novel (sustainability) language/systems of meaning (i.e., cognitive social capital - cf. Nahapiet & Ghoshal, 1998; 3.3.6.6). Highlighting communication tools is especially important given that: *"(...) there is a lot of talk about production but not so much about the communication tools and mechanisms in relation to the CE"* (CEO of Tedoy, Interview, March 2020), yet it is the consumer demand enabled via relevant communication channels that significantly determines the scale and scope of circular practices (cf. Van Weele et al., 2016).

*i. Social media and campaigns*

*"We are small but we are loud – this is our power"*

(Manager of *heidenspass*, Interview, May 2019)

Contrary to the majority of those interviewed SEs in Chile and *heidenspass* (Graz, Austria), many SEs in Hull do not have enough resources and skills to effectively navigate social media/IT world to market their products and educate audience. Crucially, irrespective of national context, any marketing efforts, except referrals from well-known/established enterprises, may encounter resistance from large mainstream companies that hold the power to promote linear advertising (cf. Herman & Chomsky, 1988). Linked to this, many entrepreneurs complained about the significant lack of environmental consciousness among customers who may find upcycled/secondary/packaging-free items not only unaffordable but also perceive them to be of lower value.

One way of changing social behaviour, which is in fact difficult to alter due to its embeddedness in complex socio-cultural structures (Aldrich & Zimmer, 1986), concerns campaigns that can help people to revalorize waste through changes in the language, educational approach and economic incentives. For example, the 'Clean plate' campaign against food waste, which was promoted by the Hull Foodbank in collaboration with a local restaurant, enabled to raise funds for the Hull Foodbank by encouraging customers to present a clean plate that was worth a donation of 10p by the restaurant. In this way it was possible to raise customers' environmental awareness on the issue of food waste whilst saving restaurant's costs on incinerating food. Crucially, campaigns could encourage people to buy packaging-free products. For example, the representative of HFP noted that while consumers at The Rooted are not very keen on purchasing *"bags of beans, kale or carrots that have been just picked from the soil"* and seem to prefer *"vegetables in plastic from Asda"* (Interview, July 2020) due to habitual tendencies, convenience and the fact that food wrapped in plastic packaging looks clean. Notwithstanding, no campaign will ever succeed unless the offered

provision is affordable. Many SEs, in fact, compete with large mainstream retailers unless they provide emergency products. As the CEO of a SE selling circular 'trinkets' noted:

*"People who think like you, will support you. But many people are not paying 10 pounds for a bag as they can get it in Primark for 1 pound. It seems impossible to break our niche of customers."*

(SE representing arts & crafts sector in Hull, Interview, July 2020).

In a similar fashion, the CEO of another craft SE in Hull noted that:

*"Hull is the wrong place for exquisite handmade craft as people cannot afford them. I have sold two spoons in The Grain shop and they are doing it as a favour to me because I'm their long term customer. They take 10 percent commission whereas a local craft shop in Barton upon Humber offered me a commission amounting 40 percent. (...) I think for the CE to really work for everybody, we need to get rid of the idea of sitting at a desk for 35 hours a week and 150.000 pounds whilst other people can spend five or six hours making something and get 10 pounds."*

(Interview, November 2020).

As a result, many entrepreneurs seek to sell their products in online marketplaces.

#### *ii. Labelling and certifications*

Marketing of circular products can be more effective if labels and certifications are in place. Consistent with Thompson et al. (2010) who highlighted that Fair-Trade labelled products can increase the willingness of consumers to pay for them more, the CEO of Soap from the Heart noted that products labelled as vegan or eco-friendly attract a lot more interest. The representatives of Triciclos and Ecocitex additionally admitted that costly certifications (such as 'Empresa B') help to avoid greenwashing by helping to build more trust between a given enterprise and clients (cf. 5.3.2.3). Trust, in turn, allows to build strong reputation, which helps to access relevant skills, ultimately helping to improve the overall SE ecosystem.

#### *iii. Corporate membership*

Corporate membership can likewise help to engage private companies in the CE at the local level. For example, Library of Stuff in Hull offers employees of private companies tags allowing them to borrow items free of charge, if need be. Such tags may be offered in exchange for corporate volunteering. Following the Chapter 5, corporate gifts may be another way of approaching private companies, yet this requires good relational skills.

iv. *Complementary currencies, vouchers and trailers*

Complementary (aka *alternative*) currencies are place-based monetary tools for building alternative and sustainable local economies (cf. North, 2010). They can be viewed as the lifeblood of diverse CE practices at the local scale. HullCoin is an example of a decentralized, alternative currency that acts as a discount for those individuals who do the good in community (BBC, 2018c). It can be issued by community organizations and retailers to qualifying social actors; an example being TimeBank chefs who contributed to TimeBank's catering events. Given that HullCoin involves negotiations with local businesses that offer discounts on broadband or consumables, Hull Coin could be also used by those SEs that could offer some of their resources/products (including zero-waste products) at lower rate (or free of charge) to those individuals that offer their work hours by (in)directly engaging in CE activities such as composting, litter picking campaigns, or even website management/design for busy SEs doing circular things. Alternatively, those individuals could be granted time credits for their work hours. Linked to this, TimeBank Hull and East Riding – a community organization offering time credits for community activities – is seeking to develop a mutual credit system, which would not only enable enterprises in the network to reduce taxes but could ideally provide financial incentives to promote CE practices.

Vouchers may be another effective tool to promote CE across different spatial contexts by facilitating (re)distribution of CE items and/or services, including workshops (see 7.4.1i). For example, Giroscope offers some of its beneficiaries vouchers that are funded by trusts (e.g., Hull & East Riding Charitable Trust) and private companies and enable financially struggling individuals to purchase second-hand electrical goods and furniture from selected shops. Less desirable from the long-term perspective are food bank vouchers, which address food poverty only symptomatically, if at all. This is because many individuals in Hull cannot even afford bus tickets to reach food banks.

Another way of improving the redistribution of circular goods concerns strategic locations of selling points. For example, interview findings reveal that charity shops located in proximity to car parks and large retailers attract more consumers. Products such as detergents or soap could be also redistributed across the city in mobile vans. The interview with the CEO of Soap from the Heart, nonetheless, revealed that this would require a licence from the city council.

v. *Lobbying as a communication process*

Lobbying for better governmental decisions/policies is another vital scaling strategy. One type of lobbying concerns *procurement lobbying* whereby certain individuals communicate with authorities to influence their actions regarding a contract or grant (Political Law Alert, 2020).



Linked to this, findings from Hull reveal the need for *social-circular procurement lobbying* because many procurements, which could be conducive to local CE development, are executed through frameworks that “*are not third sector friendly*” (Interview with a local authority from HCC, March 2021). Nonetheless, any efforts to encourage policies enabling SEs in Hull to win government contracts, such as those related to introducing social value policy and social CE agenda that would acknowledge/foster social-circular public procurement and commissioning, are likely going to be ineffective due to financial precariousness of local authorities who tend to secure contracts at the lowest possible price (cf. 7.3.2i). As a local authority at HCC stated, when asked about the possibility to procure furniture made as part of SEs’ inclusive work insertion schemes:

*“It is definitely something we could consider but they also have to compete with the best kind of producers on the market. We do seek to build incentives or social value requirements within our procurement and at the end of the day there are typically a limited number of competitors in the market and the biggest [and] most significant thing is functionality, quality of a product. But they [SEs] definitely have a competitive advantage because they are local, and we would want to use them particularly if it’s locally sourced materials to close that loop. So how do we facilitate helping them get closer to meeting the need? So, our focus is really on what product is it that we want rather than if we use local companies only. The fact that they also address mental health issues would score highly but they need to be in a ballpark in terms of the product they provide and if they are not competitive on price they probably still would not win”*

(Interview, March 2021).

In a similar fashion, another local authority from HCC noted that:

*“It comes down to the sort of cost quality balance within where we assess tenders. Cost is usually more important than the quality. Cost is simple but there are many dimensions to quality, including an environmental approach of a business. So, in those qualities social value/procurement is actually a small percentage, like 5-10%, so it is difficult to have it determine decision approach. Within our procurement we have an environmental policy as an authority and we ask businesses or tenders to show they will support us in delivering that policy but it is only 5% of the evaluation”*

(Interview, March 2021).

Findings thus suggest that the lack of level playing field between (small-scale) SEs<sup>70</sup> and mainstream companies, coupled with difficulties in assessing the total cost of a given SE's services (evaluating trade-offs between financial returns and social impact) and reconciling social value/return with the cost-saving (converting social returns into financial return), may significantly impede successful lobbying. Local authorities also have no power over private companies when it comes to encouraging them to procure socially responsible goods and services from local SEs. This could occur as long as they can afford a strong social ethic and work in partnership with those private companies, yet the findings suggest that this is not the case. In line with Morgan (2008), local authorities thus find it less risky to enter large-scale contracts with regional or national companies rather than local providers (e.g., SEs), regardless their potential social-circular benefits to the local economy. By way of comparison, one entrepreneur from Chile similarly noted that:

*"In Chile large enterprises steal the show while small enterprises do a lot of great and important things"*

(Interview, March 2020).

Overall, there is limited political opportunity structure manifested in limited capacity of SEs to significantly influence political processes (Tarrow, 1998). On top of that, various local SIOs, which could enact such lobbying, likewise have a limited capacity to do so. This is despite the fact that local SIOs such as North Bank Forum have attempted to develop Social Value Measurement Framework for use by all public service commissioners and VCSE sector organizations in Hull (cf. 6.2). Interestingly, Rowan et al. (2009:7) recommended that sub-contracting of services offered by SEs is viewed as *regeneration* rather than procurement so that local authorities are propelled to focus on 'outcome-based commissioning', ultimately addressing any emergent local community needs.

Another type of lobbying in the field of the CE concerns lobbying for mandatory EPR schemes, which would recognize SEs as important re-use operators that can assist private companies in taking responsibility for their products at the end of their life (e.g., by reusing and upcycling them). Given that any implementation of mandatory EPR schemes is likely going to be met with resistance from private companies (that are afraid of incurring additional costs), it is even more important to ensure that SEs lead discussions on EPR schemes that would ideally boost private companies' CSR and lower their waste management fees. An important role here play

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<sup>70</sup> SEs also tend to compete with each other for contracts with local authorities.

national SIOs such as Charity Retail Association or WRAP (UK), and SEs offering advocacy such as Triciclos (Chile), all of which lobby in favour of implementing EPR schemes.

## 7.5 Towards New Circular Ventures?

While the previous subsections focused on already established SEs and the ways in which they could expand and thrive, this final section explores the potential for the emergence of new circular ventures that could offer more inclusive work opportunities. Research findings from Hull reveal that there is a number of support infrastructure organizations - SIOs (e.g., The HEY Smile Foundation or North Bank Forum) in the city that facilitate the development of entrepreneurial activities in the city, yet they lack CE curriculum. Many SIOs do, however, have limited financial capacity to run support services (e.g., business mentoring) by themselves. This contrasts with funding schemes in Chile offered by the Chilean governmental organization - CORFO - that supported the growth of an extensive circular innovation ecosystem in the country over the past 10 years<sup>71</sup> (Representative of Triciclos, Interview, March 2020). Given that Hull has recently attracted a lot of inward investment (e.g., Siemens), such investment could be potentially re-routed to support the development of community businesses in local areas. Interestingly, HCC has *“an entrepreneur and micro-business focus in an attempt to increase entrepreneurship and micro-businesses, with particular focus upon young people and women* (Local authority official in Hull, Interview, July 2020), yet there is a lack of circular curriculum in the city agenda. As another local authority official from HCC stated:

*“We have not looked into circular economy businesses or green businesses; and into the opportunities within the city and what is out there at the moment (...) Finding like-minded people to speak I think that is an issue for some businesses”*

(Local authority official from HCC, Interview, March 2021).

The SE sector in Hull could therefore benefit from more networking events and fairs (such as those organized by CORFO), which would connect like-minded individuals, ideally those who are committed to different activities to avoid any potential conflict of interest. Stronger SEs could also work with incubation spaces (e.g., Makerspace Hull) to act as development networks for future entrepreneurs and those who are facing liability of newness and smallness (cf. Rowan et al., 2009). Crucially, such co-working spaces and SIOs could play an important role in awakening a more entrepreneurial spirit in highly deprived and insular areas where residents need to realize that they can be masters of their own destiny and who can do a lot of good in communities which they belong to (i.e., that they can set up their own businesses).

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<sup>71</sup> SEs such as Biorigen, Freemet or Tedoy have received funding support from CORFO.

In any case, promoting entrepreneurship in such areas is an uneasy task that faces multiple lock-ins such as low education levels. As one SE manager noted:

*“I am cautious about pushing people towards self-employment unless it is something that they initiate because you need quite a lot of initiative, commitment, and have the ability to find markets. If you haven’t got the skills to get a job, building your own business might be a stretch unless you have got some particular expertise. I don’t want to set people up to fail. If we had a shop we could sell other people’s products and, it doesn’t matter if you make 10 or 100 products a week because they are not taking a financial risk. If you set up as a business and you don’t sell 100 products a week you might not have enough money to pay your bills”*

(Representative of a community SE in Hull, Interview, March 2021).

Linked to this, while SEs such as Winner Ltd. or Traenerhus offer craft activities to vulnerable women, they are usually at a very low level and the sales of generated outputs are not enough to cover living expenses. In addition, the CEO of a SE located in the most deprived East part of the city also noted that:

*“It can be a vicious circle whereby we would help residents to get on their feet: they would move out and then residents with even more issues would move in. We are the fourth generation of people who are unemployed and are not encouraging children to get an education to be able to think about how they're going to get out of the area, get jobs and support themselves and buy houses. And your bills go to fund Universal Credit”*

(Interview, August 2020).

The above statements thus imply that there is a need to offer comprehensive training for future entrepreneurs who would need access to funding pots and links to relevant actors and infrastructure (e.g., Library of Stuff for tools, or Giroscope for affordable and possibly shared premises).

Some of the more established SEs could also create spin-outs or entrepreneurial hubs that would accommodate (and train/educate) individuals from deprived areas (cf. 7.4.1). For example, there is a potential for some SEs to empower local women by teaching them how to make and sell reusable sanitary pads. Relevant sewing training could be run by local entrepreneurs (e.g., ROPO Design or Life and Loom), yet sewing machines could be donated by private firms or rented (e.g., from the Library of Stuff). Such a business idea could also have an educational aspect as SEs working around period dignity (e.g., Winner Ltd.) could help to overcome any mental/cultural barriers (cognitive inertia) associated with using such sanitary pads. As one CEO of a SE engaged in crafts in Hull noted:

*“I think women in Hull are particularly squeamish because you haven’t got a particularly educated population – there is a big job of awareness to be done”*

(Interview, August 2020).

In any case, such new reconfigurations of resources/actors are not likely to be compatible with long-held community traditions, networks and ways of being (cf. Rogers’s Diffusion of Innovation theory in 3.3.6.5). As Powel and Smith-Doerr (1994:393) mentioned: *“ties that bind may also turn into ties that bind”*. Interestingly, the representative of a SE working with vulnerable women noted that they would *“promote it but not be directly involved in it”* because they *“chose a different path when it comes to being a SE”* (Interview, social service SE in Hull, April 2021). Such statement indicates that many established SEs remain entrenched or ‘over-embedded’ (cf. Uzzi, 1997) in their existing fields when it comes to running new projects, not to mention spin-outs, due to the lack of continuous funding and the need to address more immediate needs (e.g., offering housing to women escaping abuse). In a similar fashion, while the representative of Winner Ltd. expressed willingness to create a furniture and wood upcycling workshop to offer new (circular) employment opportunities in East Hull, the SE would need to find a way to offset additional costs of renting large premises and hiring new staff. Interestingly, one SE did not manage to secure funds to open a learning centre and an entrepreneurial hub wherein refurbished containers would become business units for people wanting to start micro-businesses (e.g., refurbishing furniture or recycling clothes). Such hub could, however, appeal to several residents:

*“A number of years ago we worked with African ladies interested in textiles, sowing, knitting. So, we know that there is a community appetite for that sort of things”*

(Representative of a community SE in Hull, Interview, April 2021).

In a similar fashion, community asset mapping with residents in East Hull revealed that they would be interested in clothes swaps and more upcycling initiatives that could be accommodated by such centres (see last column in Appendix 3 for more information on potential types of entrepreneurial activities in Hull).

## 7.6 Conclusions

Based on findings from case study SEs and SIOs in Hull (UK), Santiago (Chile) and Graz (Austria), this chapter outlined some of the key impact scaling strategies and challenges associated with thereof, yet in relation to respective economic units. More specifically, the distinguished strategies are not mutually exclusive and are expected to deepen and broaden, to varying and context-sensitive degrees, the scale and scope of social-circular and economic value

outcomes/impacts associated with place-specific circular activities. Such triple benefits are supposed to improve urban liveability understood as the ability of a city to attract and retain its population through improved quality of life and its resilient, inclusive and authentic character (Jarvis, 2018). In brief, the outlined strategies range broadly from operations aimed at (1) improving and diversifying products and services in CE ventures; (2) increasing the volume of existing provision, and (3) improving the delivery of circular provision across space and time ('socio-spatial' scaling). A comprehensive overview of scaling strategies can be found in Appendix 6. An overview of interdependencies of factors impacting scalability can be found in Appendix 5.

Crucially, the findings reveal that financial capital, employees and partners were the three most frequently cited assets that act as key fuels for the engines of social-circular venture scaling, regardless their geographic location. However, just like one type of fuel does not effectively match every type of engine, one form of each one of these assets does not match all types of SEs. In any case, yet consistent with the resource-based-view theory (3.3.2), those assets can lead to greater competitive advantage and organizational performance of SEs. Moreover, in recognizing a set of capabilities and assets, and observing how diverse, cross-sectoral interactions may affect scaling outcomes in a given institutional context, and which were previously not associated with the initial interaction, this chapter contends that it is possible to identify and trace the 'ripple effects' related to scaling. Stated differently, in adopting a cross-sectoral, multi-asset, multi-organisational and multi-spatial approach, this chapter set the ground for cross-fertilizing innovative ideas and strategies emerging from the analysis of three different spatial contexts. Doing so, it also shows how searching for possible synergies between a number of different assets and sectors, such as vacant buildings and the creative arts sector, could facilitate the diffusion of CE thinking and practice. This chapter also contends that envisioning and strategic planning of pathways to upscale and (re)distribute social-circular value outcomes serves to inform relevant (policy) recommendations in regard to the local development of the CE (see Chapter 8).

The findings also illustrate that while some individuals become entrepreneurs, once they accidentally stumble onto opportunities and resources (cf. population perspective in 3.3.6.4) it is necessary to strengthen the support infrastructure in order to create favourable conditions for SEs to upscale (e.g., by creating spin-outs) and for new ventures to develop. This is especially the case for ventures set up or serving in multiply deprived areas such as those in Hull (cf. Lee et al., 2018), and should include efforts to form social capital, which usually underpins successful entrepreneurship, for example via social networking events (cf. Fafchamps & Minten, 1999).

Finally, the content of this chapter constitutes an important ground for the *Integrated Social-Circular Value Scaling Framework* and Toolkit, which are designed to help entrepreneurs operationalize reflection and evaluative thinking in support of addressing/overcoming any emerging challenges associated with scaling social-circular innovations (8.2 and 8.3).

## Chapter 8 – Conclusions and Recommendations

### 8.1 Summary of Research Findings

This thesis has examined the role of social enterprises (SEs) in the local development of the circular economy (CE), drawing upon intensive research into sector- and place-based case studies of SEs in the UK, Chile, and Austria. By conjoining a number of insights from the literatures on alternative economic spaces (Lee's (2013) 'circuits of value' and Gibson-Graham's (2006) 'diverse economies'), social entrepreneurship, network theory, as well as social innovations and scalability thereof, this thesis has made a number of novel theoretical, conceptual and practical contributions to the existing economic development discourses and practices surrounding the CE. Focussing upon 50 SEs operating in three different urban spatial contexts, namely Hull (UK), Santiago (Chile) and Graz (Austria), it examined the extent to which SEs stimulate and potentially could stimulate, through diverse impact scaling strategies, the development of a local and socially inclusive CE. In so doing, this research revealed hitherto hidden social-spatial dimensions of the CE and depicted SEs as *circular alternative economic spaces in the making* whereby economic activity revolves around social-circular innovations that help to empower vulnerable individuals (e.g., by engaging prisoners, homeless, mentally struggling or vulnerable youth in CE practices, including consumption of secondary subsistence goods), build community capacity, address poverty/social fractures, and respect ecological limits.

Highlighting the diverse circuits of value implicated in local CE development (Chapter 5), this research positioned SE as an entity entangled in a complex web of interconnected material and social relations and practices that occur across coexisting mainstream and alternative economic spaces of production, exchange, and consumption. In so doing, it has enriched the literature on how collective actions enacted by SEs help to diversify local economic development trajectories (Montgomery et al., 2012). Crucially, by aligning the CE concept with circuits of value, this thesis showed the importance of mapping and conceptualizing value flows and corresponding feedback loops that are associated with the local development of the CE in a given spatial-temporal context. This ultimately enabled me to uncover some key tensions and contradictions associated with (re)production, (re)circulation, exchange, and consumption of products and services in the CE. For instance, many of the SEs' production inputs embody complex and often exploitative (of labour and nature) social and material conditions of global production. By internalizing wider societal tensions in capitalism, such SEs may, in fact, indirectly and unwittingly help to perpetuate a number of inequalities and environmental problems while at the same time attempting to become more circular and financially independent (e.g., from state support). The vast majority of these SEs also partake



in global market transactions that result in local and global consumption. Such spatially differentiated economic activities have implications for the development of a genuine CE, which occurs when all production inputs are sourced and produced locally and ethically, and outputs/products are exchanged and consumed locally (Stahel, 2013). *Metaphorically framed as mini cogs of circuits of value, SEs, in fact, operate within the larger cogs of expansionary circuits of capital.* Moreover, just as expansionary circuits of capital are subject to macro-level regulations, any products, materials and networks formed around locally based SEs (i.e., at the micro-level) are shaped by the macro-level policies and regulations, and regional networks at the meso-level (cf. Kirchherr et al., 2017). Congruent with Lee's (2011) analysis of circuits of value, this research thus suggests that SE-driven local economic development is little more than the joining of some parts of circuits of value in such a fashion that they boost local circular economic activity rather than broadly stimulate local economic development. There is thus a need for policies for local CE development that are sensitive to the wider territorial (regional and national) contexts as well as institutional constraints within which SEs operate (see 9.2.1). Overall, although SEs' socio-material configurations and activities can foster local innovation capacity whilst increasing local competitive advantage and offering socially regenerative systemic support for disadvantaged people through inclusive work integration schemes, SEs' broader contribution to the development of a local and socially inclusive CE remains questionable. Moreover, since it is unlikely to source and produce all materials locally so that it would be possible to feed, clothe and house global population, there is arguably the need for a glocalized economy wherein certain high value materials and inputs are traded on an international level, yet the majority of resources circulates on a more regionalized scale (and in a sustainable fashion) wherever possible.

Untangling circuits of value also enabled the researcher to interrogate whether private-social partnerships (wherein global corporations seek to boost their image and attract more investors through social procurement and/or B2B transactions that involve circulation of second-hand materials) prompt those corporations to rethink their linear production processes and employ CE practices. Although such B2B partnerships offer SEs an opportunity to advance their mission, it is questionable whether the socio-environmental benefits offered by SEs outweigh the negative social/environmental externalities embodied in their inputs of non-local, capitalist origin. SEs *de facto* are unable to manufacture or locally treat all types of goods and materials, and instead act as important local agents for (creatively) managing mainstream, globalized waste. The subsequent formation of cross-realm circuits of value thus neither significantly challenges the status quo nor addresses deeper issues that underlie mainstream economic logic, including the problem of overconsumption and demand for cheap products.

Such alternative material circuits of value tend to, instead, only superficially consolidate what the mainstream circuits tend to disintegrate (i.e., humans and environments made disposable) and what, in fact, underpins their sole existence. The debate about the social and environmental benefits of the CE can thus greatly benefit from examining the contribution of SEs through the lens of a diverse economy.

This thesis also investigated and mapped the actual and potential role of networks in enabling or impeding access to, and facilitating exchanges/diffusion of, resources and circular practices within a locally emergent *social circular ecosystem* (Chapter 6). This entailed identification of actual and potential links between CE practices in the food, clothing & other textiles, furniture, arts & crafts, hygiene, electronics and construction/housing sectors with vulnerable social groups and (small/eco-) entrepreneurs, namely women, the disabled, elderly, ethnic minorities, homeless, prisoners & ex-offenders, vulnerable youth, refugees, and asylum seekers, unemployed, alcohol addicts, and the mentally struggling. The resultant *social circular ecosystem map* has practical implications in that it is expected to challenge any possible 'silo mentality' that often prevents diverse actors from noticing the broader existing and potential cross-sectoral interconnections. It is expected that such 'systemic awareness' motivates diverse stakeholders to stay connected and work towards shared goals (cf. Staicu & Pop, 2018). The generated map is also expected to encourage decision-makers to invest in social infrastructure so that it would be possible to unlock the potential for more local and community-driven circularity in the city.

Upon generating the *social circular ecosystem map*, this thesis outlined some of the key network patterns, which underlie formation of collaborative ties for the CE; albeit the data provided only a snapshot of the broader SE landscape in Hull and in a given temporal context. For example, while SEs in Hull are generally familiar with one another and there are many cross-sectoral collaborative ties, competition-driven low trust and any potential reputational risks between organizations tend to obstruct formation of collaborative relations. Crucially, Chapter 6 contends that it is important to integrate considerations of SEs' organizational attributes and their social and geographic positioning, which, in turn, impact (1) the formation of (value-adding) partnerships, (2) content of SEs' relationships and (3) network heterogeneity, among other facets. Accounting for all these aspects offers new insights into the underlying power-relations and associated variegated levels of trust within the *social circular enterprise ecosystem* in a given institutional context. Crucially, these aspects and interrelationships between respective themes and factors may (potentially) have an impact on SEs' performance outcomes and, ultimately, on the local development of a socially inclusive CE.

Acknowledging relational social structures and associated linkages occurring across different levels of organization in a given SE ecosystem is hence important when examining the capacities (and willingness) of SEs to deepen and broaden the scale and scope of their environmental-circular, social, and economic value outcomes/impacts associated with (circular) activities. This involves (1) improvement and diversification of products and services in CE ventures, (2) increase in the volume of existing provision (including pursuance of economies of scale), and/or (3) improvement in the delivery of circular provision across space and time, for example through social-circular franchising, forming joint ventures with other SEs or running satellites across a specific geographic area (i.e., 'socio-spatial' scaling) (Chapter 7). Respective strategies are not mutually exclusive; for example, while some SEs do not intend to grow in size, a certain organizational size is vital to ensure efficient work (this includes administrative processes). Crucially, when exploring the possibilities to deepen and broaden the scale and scope of social-circular and economic value outcomes/impacts associated with place-specific circular activities, the findings reveal that it is usually the financial capital, employees and partners that act as key fuels for the engines of social-circular venture scaling, regardless their geographic location. However, just like one type of fuel does not effectively match every type of engine, one form of each one of these assets does not match all types of SEs. In any case, SEs are more likely to become circular if they embody CE thinking and practice in their business models since their conception.

In adopting a cross-sectoral, multi-asset, multi-organisational and multi-spatial approach, Chapter 7 set the ground for cross-fertilizing innovative ideas and strategies across different spatial contexts. It also highlighted the importance of searching for possible synergies between a number of different assets and sectors (e.g., linking vacant buildings with the creative arts sector) in order to facilitate the diffusion of CE thinking and practice. Finally, the content of Chapter 7 constitutes an important ground for constructing the *Integrated Social-Circular Value Scaling Framework* (ISCIRVIS) and Toolkit introduced in the following subsections (8.2 and 8.3).

## 8.2 Integrated Social-Circular Value-Impact Scaling Framework (ISCIRVIS)

Building upon theoretical insights from the Literature Review and research findings from the case study SEs and SIOs, as well as drawing upon Weber et al. (2012), this research proposes an *Integrated Social-Circular Value Scaling Framework* (ISCIRVIS) (see Figure 8.1), which can act as the aggregated schematic diagram that broadly provides an integrated summary of the research as a whole. The ISCIRVIS model is, however, primarily designed to help entrepreneurs to identify and assess circularity at the organizational level (particularly in terms of the products and services they offer) and to consider different pathways for implementing and/or

scaling CE practices (and hence organizational capacities, including dynamic capabilities). Assessing the scalability of circular products/services is even more important given that those SEs, which are deemed successful, may, in fact, not grow due to not being scalable.

The presented scaling strategies are broadly aimed at creating, deepening and/or broadening the scale and scope of environmental-circular, social, and economic value outcomes/impacts associated with existing or potentially implementable (circular) activities. The framework leaves room for flexibility because, depending on the entrepreneurs (including their individual personality traits) and external circumstances, it may not necessarily result in more circular strategies but, instead, more social value creation through other means. Linked to this, it recognizes that decision-making (in complex and uncertain environments) may have a compounding effect meaning that decisions in one area can reduce the possibilities in another area, potentially impeding business development (Morris et al., 2020).

Similarly to the National Social Value Measurement Framework (i.e., TOMs), the proposed framework recognizes that there is no unambiguous definition of social value - the term overlapping with the concept of 'social impact', i.e., positive and/or negative value resulting from someone's activity, and which is experienced by beneficiaries and other actors (Noya, 2015; Emerson et al., 2000; Social Value Portal, 2021). Social impact can be also referred to as a value outcome that is benchmarked against the circumstances that could have emerged in case the undertaken activity was not proposed (Noya, 2015). Moreover, the framework acknowledges that environmental benefits ultimately benefit society, hence generating a social value.

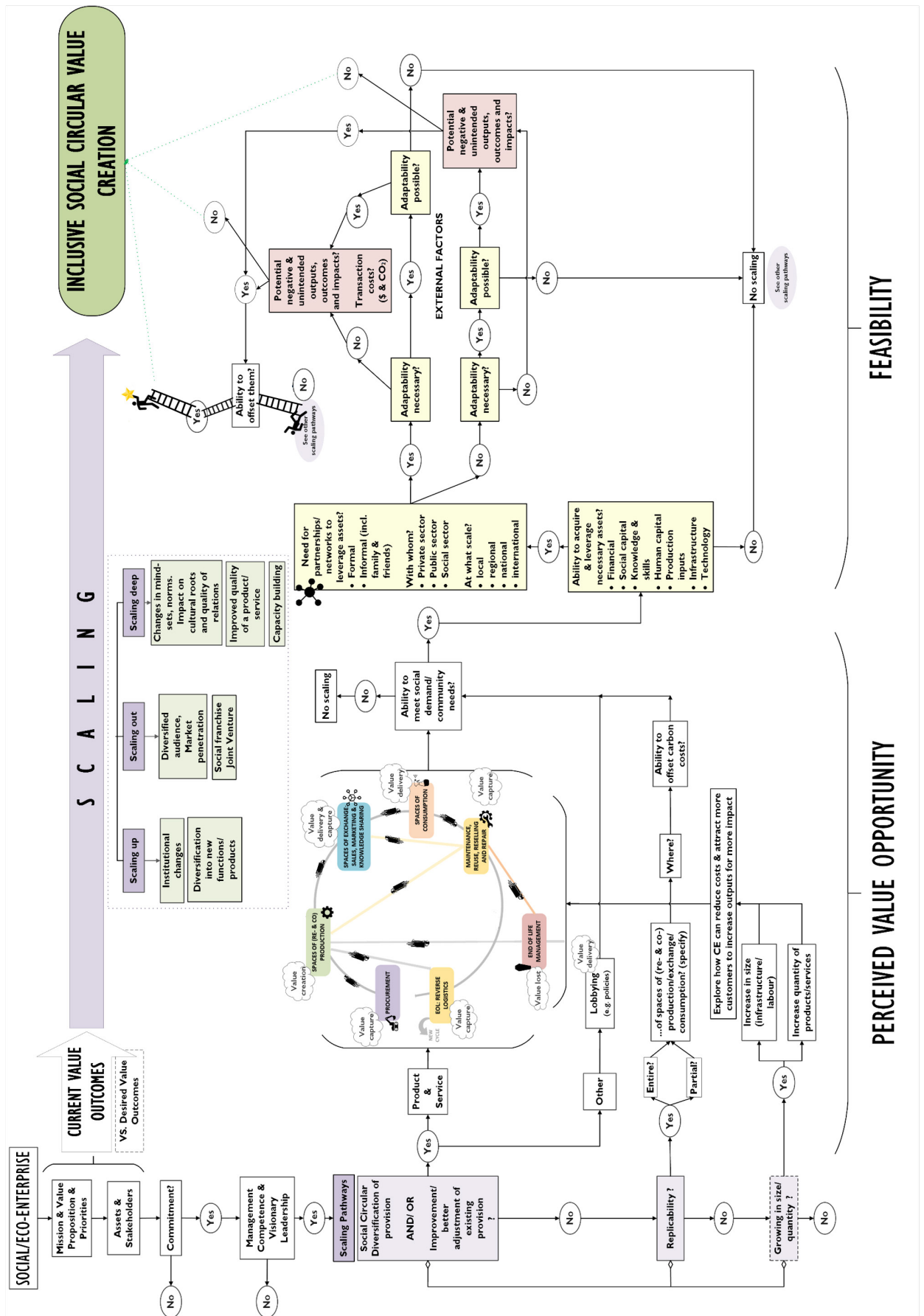


Figure 8.1 - Integrated Social-Circular Value-Impact Scaling Framework (ISCIRVIS)

Author's design after Weber et al. (2012). Note: Toolkit in Appendix 8 complements this model with additional materials to apply it in practice.

The ISCIRVIS Framework recognizes the importance of assessing two key endogenous aspects: (1) levels of commitment (for continuous improvement and innovation) within the entrepreneurial team, and (2) management competences and (visionary) leadership (see Figure 8.2 below). Both aspects are mutually reinforcing. In line with research findings, competent managers not only can help to redefine entrepreneurial tasks by controlling the workflow and employing skilled staff, but they can also inspire trust and commitment among employees and volunteers to ensure that there is no tension between entrepreneurs and organization's values. Following the population perspective, and more specifically evolutionary process of selection (Aldrich et al., 1984), the research findings also suggest that maladaptive managerial competences do not help to, if not in fact hinder, effective procurement of necessary resources from outside and hence performance of SEs. Hiring competent managers may be, however, too costly for SEs, especially those that are heavily dependent upon external funding. Leadership, viewed as an ability of an individual or a group of individuals to seek new opportunities and to *"exert more influence than others on the group or the process, at least in a certain time"* (Shamir, 2012:487), likewise needs to be acknowledged because any 'lapses of leadership' may result in the failure to innovatively improve existing provisions (Leih et al., 2015). This is because robust leadership enables to discover new opportunities for the enterprise's growth and to mobilize and reconfigure necessary resources that can stimulate CE development. Ideally, leadership should be 'servant' whereby value, including knowledge, information, and sustainable design, is (co-)created for and with multiple stakeholders (Liden et al., 2014).

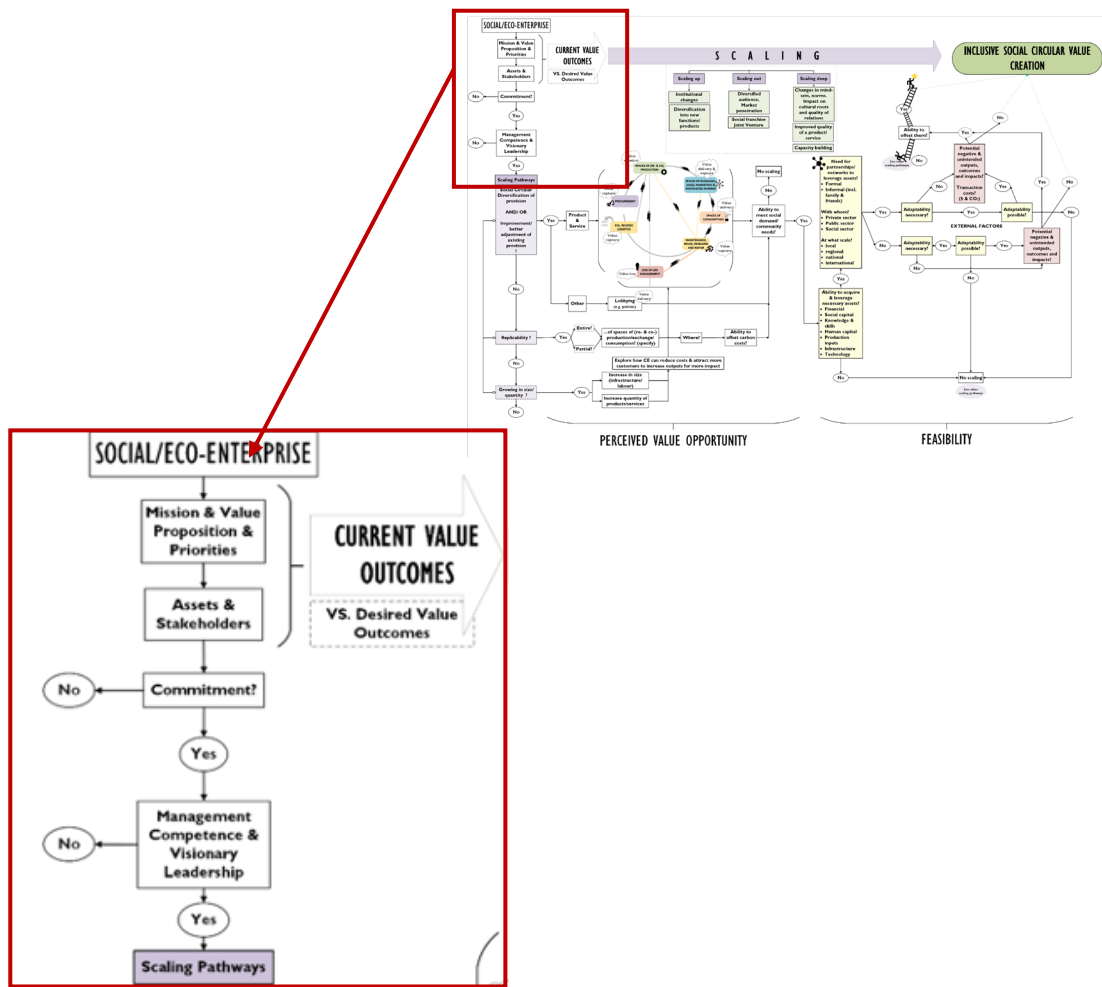


Figure 8.2 - Extract from IS CIRVIS Framework

### 8.2.1 Perceived Value Opportunity

Upon assessing levels of commitment as well as managerial and leadership competences, the proposed framework invites users to explore a number of scaling strategies that were identified in Chapter 7 (i.e., improvement and/or diversification of existing provision in relation to respective economic units – cf. 7.2, this also includes improvement in the delivery of provision – cf. 7.4; replicability across space; and increase in the size/volume of a given provision – cf. 7.3), see Figure 8.3.

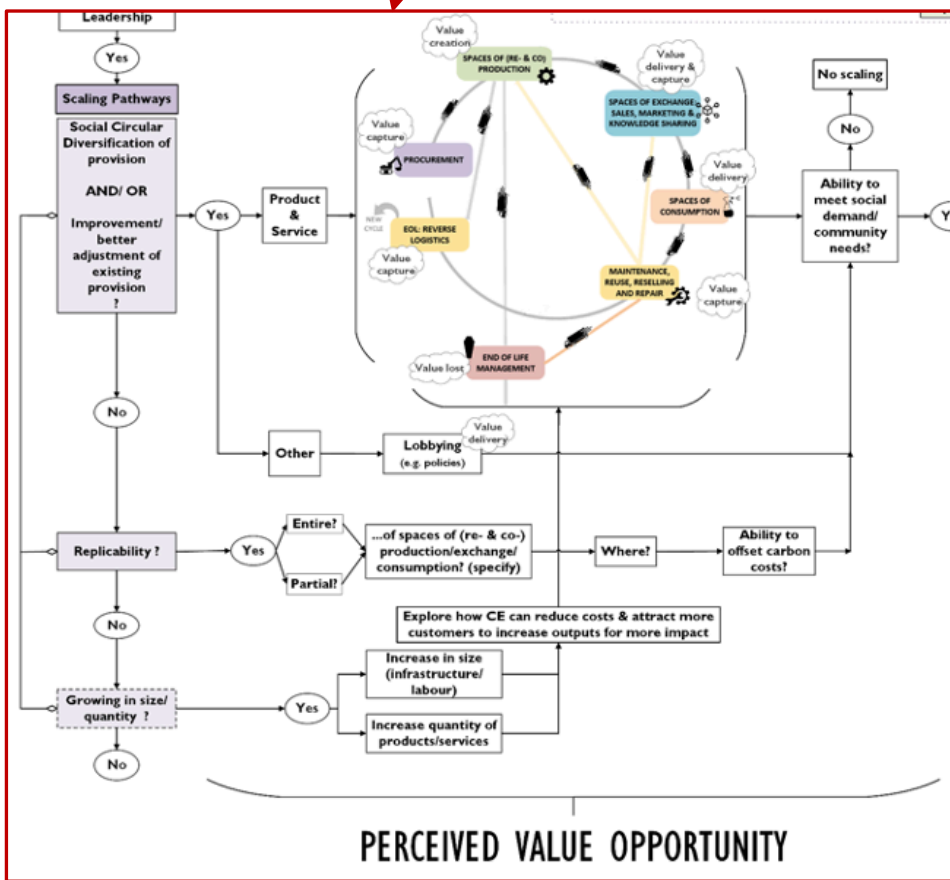
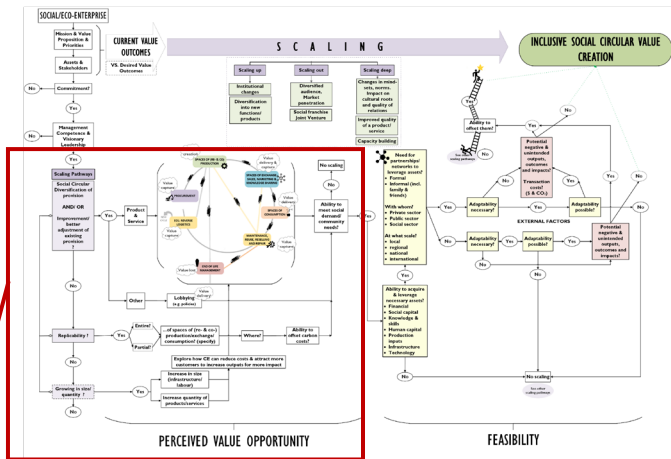


Figure 8.3 – Extract from ISCIRVIS Framework

Such a process of exploring possible value creation/delivery/capture opportunities is consistent with the concept of ‘sensing’, which constitutes an integral part of the ‘dynamic capabilities framework’ proposed by Teece (2007). In Teece’s sense, dynamic capability known as ‘sensing’ concerns scanning of the external and internal environment in which organizations are embedded, including acknowledging customers’ voices, and trying to meet their needs. Crucially, perceived value opportunities behind a human decision to pursue specific scaling strategies are influenced by a diversity of factors (e.g., governmental policies, market forces,



organizational antecedents or even personal experiences, behavioural characteristics, and age of an individual), yet rationality is bounded due to the lack of perfect information (Ostrom, 2005). Some of these factors may also influence the feasibility of pursuing specific scaling pathways. The summary of variegated (circular) scaling pathways identified in this study can be found in Appendix 6.

### 8.2.2 Feasibility

The final part of this framework concerns assessing feasibility, i.e., leveraging assets and capabilities for scaling. This is consistent with 'seizing' and 'reconfiguring/transformation' elements of the dynamic capabilities' framework proposed by Teece (2007). Seizing concerns mobilization of resources, both internally and externally, so that social circular value is created through respective scaling pathways. Reconfiguring implies reconfiguration of existing organizational arrangements and networks in such a fashion that scaling pathways are viable in a rapidly changing environment. Such process may be, however, more difficult in more established enterprises that are characterized by certain path dependencies, which may impede redeployment of fixed assets and employment of new staff. Conducting 'reality testing' to check as to whether pursuing specific scaling pathways is viable, is hence necessary and showcases that the process of implementing social circular innovations may require a lot of experimentation, learning and adaptation (cf. Patton, 2006; see Figure 8.4).

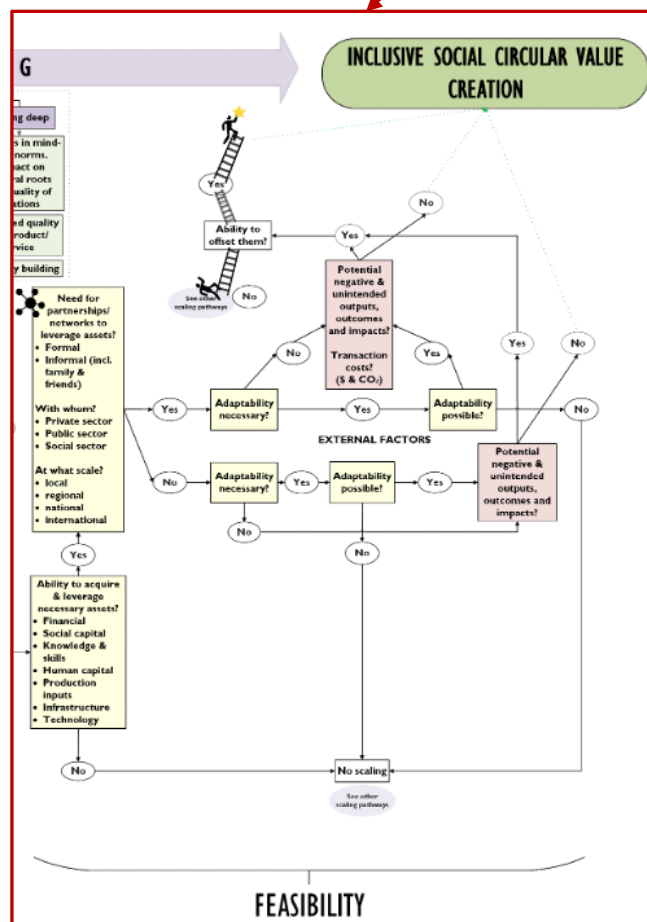
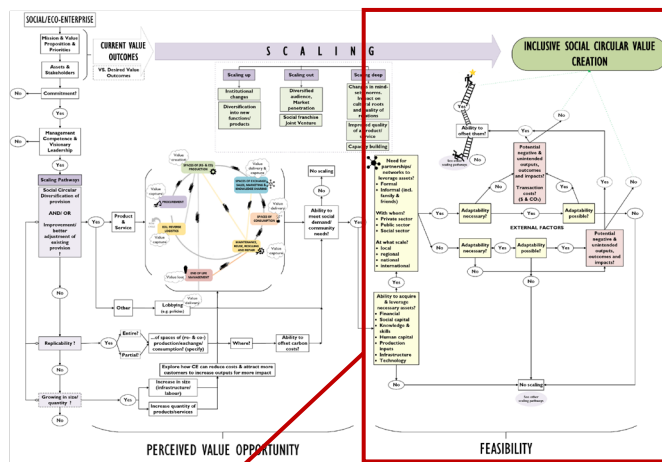


Figure 8.4 - Extract from ISCIRVIS Framework

i. Mobilization of Resources

Following the research findings, SEs require the deployment of a broad array of assets (incl. capabilities) from within and outside the enterprise to scale their triple impacts across diverse spatial contexts. Not only some of these assets are integral to SEs' activities (e.g., waste, or surplus products) and thus have intrinsic value to SEs, but they are also vital mechanisms that can significantly enable/ act as capacity builders for scaling (e.g., digital technologies). Some activities or services offered by SEs, for instance trainings for employees, can additionally help to shape capabilities of other SEs to upscale. Crucially, the ability to acquire necessary

resources/assets is usually contingent upon the ability to tap into external networks and forge new (in)formal partnerships with social/public/private sector organizations operating at local/regional/national and international levels. The Table 8.1 below, and which is complementary to the proposed framework<sup>72</sup>, outlines some of the key tangible and intangible assets that are integral to respective scaling strategies. Interdependencies between respective assets can be found in Appendix 5.

**Table 8.1 - An overview of some of the key identified assets necessary to pursue respective scaling pathways<sup>73</sup>**

Tangible assets	Intangible assets
<ul style="list-style-type: none"> <li>• <b>Financial capital</b></li> <li>• <b>Human capital/employees and partners</b> (see 7.3.3)</li> <li>• <b>Production inputs/saleable outputs/'waste'/surplus materials</b> (see 7.3.2)</li> <li>• <b>Infrastructure &amp; property (owned/shared)</b> (see 7.3.1)</li> <li>• <b>Technology and tools</b></li> <li>• <b>Vehicles</b></li> <li>• <b>Consumers</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Commitment</b></li> <li>• <b>Knowledge/Expertise</b> <ul style="list-style-type: none"> <li>○ Social and environmental impacts</li> <li>○ Policies</li> <li>○ Suppliers/beneficiaries/distributors</li> <li>○ Circular economy</li> </ul> </li> <li>• <b>Skills and capacities</b> <ul style="list-style-type: none"> <li>○ Leadership and management</li> <li>○ Ability to transform knowledge into practice</li> <li>○ Ability to mobilize resources</li> <li>○ Operational</li> <li>○ Team working</li> <li>○ Marketing</li> <li>○ Relational (ability to work with different partners and communities)</li> </ul> </li> <li>• <b>Time</b></li> <li>• <b>Reputation/brand</b></li> <li>• <b>Property rights</b></li> </ul>

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<sup>72</sup> For example, time and new skills could be acquired by hiring new staff, yet hiring new staff is contingent upon the availability of financial capital.

<sup>73</sup> Financial capital was the most frequently mentioned resource, which may be obtained from trade activities, membership fees or funding pools. SEs may also consider saving money elsewhere when running a business, for example by joining asset transfer schemes (see 7.3.1) and other SEs to reduce overhead costs or subleasing premises to other enterprises (see 7.4.3).

ii. *Adaptability to Exogenous Variables*

Adaptability implies the ability of individual organizations to adapt to diverse contingencies, or, in other words, to “*fit the contingency or contingencies that the organization is confronted with at a given point in time*” (Roy et al., 2015:2538). The proposed framework recognizes that the broader socio-economic, cultural, and institutional landscape in particular geographical contexts in which SEs are embedded may either open or close a window of opportunity for SEs to pursue particular circular scaling strategies. This includes the recognition of the broader societal/community, environmental and economic needs and wishes, as well as any potential or existing risk factors that may add extra uncertainty and dynamism when considering scaling in particular (and inherently dynamic) environments. For example, SEs (which are dynamic themselves) may face external shocks and pressures such as competitive market pressures, lobbying influences, pandemics and the associated economic crisis, social crisis<sup>74</sup>, governmental regulations or entrepreneurial culture (i.e., a set of dominant values, norms and knowledge that may favour or hinder cooperation, innovation, or philanthropy, and ultimately CE development). Such exogenous factors test resilience of a given venture understood as its ability to absorb, adapt, and transform in the face of challenges in such a fashion that its key operational functions are not significantly disrupted, and organizational viability is ensured. The ISCIRVIS framework is also consistent with Roy et al. (2015) who applied the ‘neo-contingency approach’ in the field of community-led social ventures, which need to be embedded within their local community context so that those ventures can realize their social goals. In any case, the ability of a given SE to adapt to given circumstances may, in turn, help it to improve, introduce or increase the volume of a particular product or a service. This is line with Bridgens et al. (2018:146) who noted that the availability of materials, artists, skills, and creative influences underpinning CE practices is ultimately determined by the broader economic, cultural, and geographic contexts in which such practices take place.

Depending on the circumstances, some of the ways enabling SEs to adapt to challenging circumstances may include relevant marketing strategies or communication campaigns that help to influence domestic culture and ultimately customer behaviour. SEs can, in fact, act as vital behavioural and education enablers when it comes to raising awareness on the benefits associated with pursuing CE practices revolving around ‘commodification of waste’. Another example concerns social networks and support infrastructure organizations, which can boost legitimacy and provide necessary support in the face of external shocks such as economic crisis.

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<sup>74</sup> The 2019-2022 Chilean protests, known in Chile as the Estallido Social, affected operationality of many ventures.

It can be also expected that family-run businesses are going to be more resilient in the face of external pressures due to higher levels of trust among family members when compared to externally hired actors (cf. Amman & Jaussaud, 2012; 7.3.3). The list of potential uncertainties associated with particular scaling strategies/mechanisms can be found in Appendix 6 and Appendix 8 (Toolkit).

*iii. Potential Unintended Outputs, Outcomes and Impacts*

Depending on the broader context and the SE, particular scaling pathways may have unintended rebound effects whereby a good action may cause a negative impact in the long-term, for example in terms of a less significant decrease in resource use than expected. Such rebound effects may be driven by increased demand for certain products or opportunity costs, the latter case also known as *symbiotic rebound effect* (Figge & Thorpe, 2019). For example, changes in one specific activity related to optimization of resource use may involve replacement with materials that are unsustainable in the long run. In addition, if organizations upscale in such a way that more goods are upcycled and recycled, it could be argued that they tend to indirectly perpetuate inequalities associated with complex, and often exploitative of labour and nature, relations that went into the original production processes (see 5.3.2). There may also emerge uncertainty over outcomes when integrating complementary resources such as knowledge (cf. Ozmel et al., 2017); when sourcing human capital, e.g., management staff (7.3.3); or when entering coopetition (3.3.6.1). Congruent with the transaction-cost theory (3.3.3), findings additionally reveal that SE managers may fear their inability to meet costs associated with physical growth of their ventures. For example, the representative of a large charity retail in Hull Hospice noted that:

*“The bigger you get, the more links and partnerships you lose the control over, so you are opening yourself up to a greater risk”*

(Interview, August 2020).

SEs may be also facing high costs associated with sourcing large volumes of sustainable production inputs, which could be offset through corporate sponsorship (see 7.2.1). In addition, while SEs such as food banks would certainly not exist had the issue of food poverty not been present, the idea of rescuing food waste coupled with delays in the distribution of Universal Credits have nevertheless prompted such ventures to upscale. The above examples indicate the need for a systematic and collaborative approach to scaling as well as comprehensive life cycle assessments that recognize interlinkages across networks, territories, and scales, and

between diverse social, environmental, and economic facets/indicators<sup>75</sup>. This could highlight some of the key factors that lead to normalization of practices that are not desirable in the long term.

### 8.2.3 General Comments

Overall, the presented framework is consistent with the critical realist methodology, which seeks to identify causal mechanisms and contingent conditions (Sayer, 1992). Any emerging interlinkages and causalities between perceived value opportunities and factors underpinning feasibility of pursuing respective scaling strategies, including the so-called *causal texture of organizational environments* (Emery & Trist, 1965), are acknowledged, and illustrated in the form of a graph (see Appendix 5). Besides, given that this research does not quantify values (e.g., by using financial values as a proxy) and some values may be perceived as more important than others, it is recommended that it is complemented with other approaches that attempt to quantify values, an example being TOMs framework (Social Value Portal, 2021). Although quantifying social value is inherently difficult, a simplified approach that revolves around evidence-based value of the proxy, could facilitate comparability across different types of value and enterprise.

## 8.3 Practical Implications of Research: Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) Toolkit

One of the aims of the wider Cresting project was to engage with stakeholders and identify, develop and co-design policies and tools for enhancing the positive impacts of the CE. The Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) Toolkit proposed here, **which is attached as [Appendix 8](#)**, is a case in point. The ready-to-use ISCIRVIS Toolkit is a process-oriented extension of the ISCIRVIS framework (8.2) as it is preceded with the evaluation of actual value outcomes associated with SE's (circular) activities. It is also designed to enable entrepreneurs identify any potential and desired value outcomes against (viable) value outcomes that are associated with a broad range of scaling strategies derived from 50 case study SEs adopted in this research. In brief, the Toolkit is designed to assist entrepreneurs interested in improving sustainability of their ventures in 'developmental evaluation' (Patton, 2010) and in making more informed decisions in the light of potential costs/risks, benefits, and broader institutional contexts. It is especially useful given that the knowledge of the CE concept remains greatly *subjugated*, i.e., not evident, especially in the City of Hull, UK where

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<sup>75</sup> Such comprehensive life cycle assessments are not the subject of this research due to its limited scope.

many interviewed entrepreneurs were unaware that they were already adopting some CE principles (e.g, reuse, sharing or maximization of the use of vacant urban spaces). Such knowledge may also help them to receive financial support to realize circular activities when integrating Tool-derived outputs into grant applications. SEs are, in fact, increasingly required to justify the use of their resources and ‘prove and improve’ their impact by embedding transparent accountability mechanisms, especially when it comes to applying for funding or trying to attract new partners, including impact investors (Sanfilippo, 2006). Besides, the Toolkit can be employed not only independently by SEs but also by SIOs or trustees who can use it to assist SEs in improving their business models. It can be also employed by private companies seeking to add social and/or environmental value to their business models.

The ISCIRVIS Toolkit, which is attached as [Appendix 8](#), broadly consists of (1) ISCIRVIS framework canvas presented in 8.2; (2) canvas, which complements ISCIRVIS framework and draws upon theory of change, i.e., inputs-outputs-outcomes-impacts (cf. Rogers, 2014), and ‘impact maps’ helping to better understand stakeholder participation by identifying goals, actors, impacts and deliverables (outcomes) (Holmes & Takane, 2017) – see Figure 8.5 below; (3) stakeholder mapping template; (4) value mapping template; (5) table consisting of multiple scaling pathways; and (6) canvas helping to assess the feasibility of pursuing respective scaling strategies in the light of desirability thereof. All parts of the Toolkit were tested during an online workshop with one SE (see 4.4.7) except for complementary Canvas B. Only one SE was contacted to test this model due to limited time of the researcher to do it with other SEs amidst the outbreak of COVID-19. The researcher plans to continue testing it whilst potentially upgrading the model on ongoing basis.

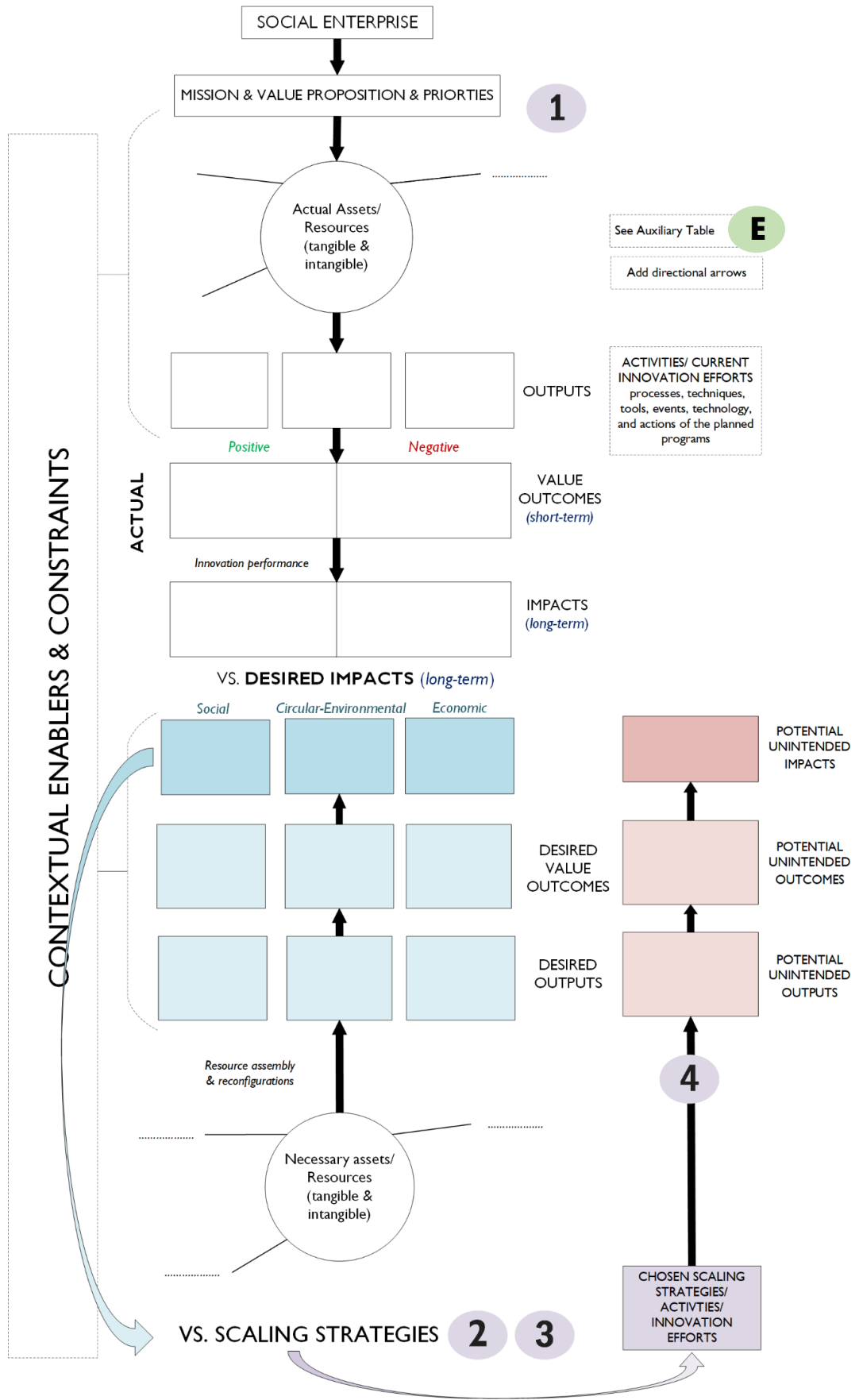


Figure 8.5 - A canvas for identifying actual and desired outputs, value outcomes and value impacts

Note: see *Canvas B* in Appendix 8 for higher resolution.



The ISCIRVIS Toolkit comprises of the following key steps:

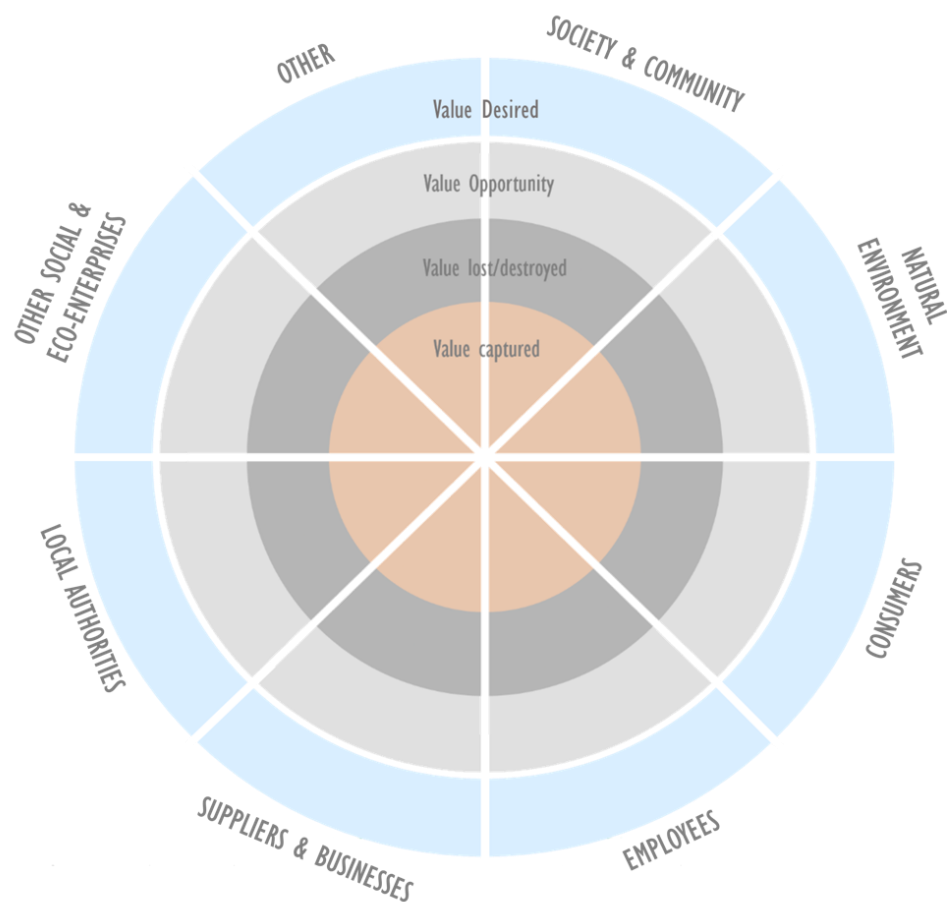
**1. Assessing mission, value proposition, and organizational priorities**

**2. Mapping stakeholders and resource flows**

Upon assessing mission, value proposition, and organizational priorities, it is recommended that entrepreneurs map resource flows to/from respective stakeholders (private, social, and public sector organizations) associated with a given SE. This can be done either using resource mapping as indicated in the Figure 8.5 or using the *Stakeholder Mapping Template*, which helps to map stakeholders from a life cycle perspective whilst differentiating resource circulation at the community/local, city, national and international levels (see Figure 4.9 and Auxiliary Canvas C, Appendix 8). This step facilitates the next step.

**3. Identifying Actual and Desired Outputs, Value Outcomes and Value Impacts**

Identification of *actual positive/negative outputs, value outcomes and value impacts* associated with current CE practices is intended to better identify *desired outputs as well as (social/environmental/economic) value outcomes and value impacts* – see Figure 8.5. In recognizing whether identified values are short-term or long-term (cf. Kurznack et al., 2021), the canvas follows the theory of change whereby ‘value outcomes’ refer to expected/desired short-term impacts and ‘value impacts’ imply expected/desired long-term impacts (cf. Rogers, 2014 - 3.3.4). Alternatively, or in a complementary fashion, value outcomes/impacts can be identified using the Value Mapping canvas, which is designed to identify value captured, lost, opportunity, and value desired associated with different stakeholders (see Figure 8.6 below and Figure 4.10). On the one hand, Value Mapping canvas, unlike canvas presented in Figure 8.6, does not indicate whether resultant values are short-term or long-term. On the other hand, values indicated on sticky notes that were attached to canvas presented in Figure 8.6 can be placed in relevant boxes in canvas presented in Figure 8.5.



**Figure 8.6 - Value Mapping Canvas: value captured, lost, opportunity, and desired**

Author's design after Rana et al. (2013). Note: See *Auxiliary Canvas D* in Appendix 8 for higher resolution.

**4. Assessing Commitment, Management Competence & Visionary Leadership**

**5. Exploring Scaling Pathways**

**6. Evaluating feasibility and any risks associated with employing identified scaling strategies/mechanisms.**

All those steps are carefully explained in the Toolkit attached as [Appendix 8](#), which includes a step-by-step guide and is supplemented with auxiliary materials.

**8.4 Practical Implications of Research: Recommendations**

Upscaling circularity at any scale requires a combination of a good relational mix, cultural norms, policy/political frameworks, financial and multi-level management structures whereby different stakeholders have different roles assigned and any steps to be undertaken are clear and transparent. This subsection presents a number of key recommendations, which highlight the practical implications of the study and can help to upscale CE thinking and practice in various contexts (not only those limited to the case study locations). These are divided into

recommendations for local policy makers, private companies, as well as funders and support infrastructure organizations. Subsection 8.4.4 additionally provides a general recommendation on how any stakeholder can act as a broker for the local CE development.

#### 8.4.1 Recommendations for Public Authorities

As the CE concept continues to attract political attention, SEs deserve to be leveraged as a tool and an *“object of policy and politics”* (Gibson-Graham, 2008:620) that have the potential to deliver public services whilst navigating us toward a bottom-up CE transition (European Commission, 2016). This includes involving SEs in public procurement strategies and extended producer responsibility (EPR) schemes (see below). Crucially, it is anticipated that local and regional authorities are going to play an important role in stimulating local and regional CE development through local regulatory frameworks, policies, economic incentives, and relevant waste management infrastructures (cf. Arcplus, 2019; Savini, 2019).

##### *i. Social-Circular Procurement and Social Impact Bonds (SIBs)*

This thesis conjoined the concept of social procurement with the concept of circular procurement; the former being about procuring goods and services that create benefits for people, stakeholders and society as a whole; and the latter being about procuring goods and services that *“close energy and material loops within supply chains while minimising any negative environmental impacts or waste creation across their whole life cycle”* (Zero Waste Scotland, 2021). In so doing, it contended that public authorities have the potential to use their purchasing power to procure/commission services and goods from the third sector through ‘social-circular procurement’ contracts. However, the size of existing commissioned work and contracts would need to be reduced if small and medium SEs engaged in CE practices were to provide relevant CE-related goods and services. Such ‘social-circular procurement’ contracts additionally require the creation of adequate conditions to negotiate contracts; an example being investment into advanced recycling infrastructure in the city, which could foster more involvement of reuse SEs in waste management. Forging such social-public partnerships around the CE would also require complex assessments of social returns of particular services offered by SEs and reconciling social/environmental value with financial returns – something what public authorities and support infrastructure organizations should seek to access (cf. UK Social Value Engine). Such an outcomes-based commissioning underlies a social impact bond (SIB) – a financing instrument involving an agreement between a public authority, an investor and an intermediary intending to support SEs in the delivery of social innovations that can help city governments to save money elsewhere in the system (Care et al., 2020). SIBs deserve more recognition as they can help cities to raise funds to promote social-circular innovations

without financial risk. This is because SIBs execute payment by results upon the completion of the project and only provided that it has reached its objectives.

Specifically concerning the City of Hull, it can be added that as local authorities and public health sector aim to create and integrate commissioning strategy for the City, it is vital to ensure that SEs engaged in CE practices (e.g., wood upcycling), which benefit communities socially, environmentally and economically, are part of this strategy.

*ii. SE-aided EPR Schemes*

Policymakers at national and regional levels should recognize SEs as important re-use (rather than recycling) operators, which have an untapped potential to assist private companies in taking responsibility for their products at the end of their life through EPR schemes (see 9.2.2). This is all the more relevant given that such schemes could help to remove some financial pressure from resource-constrained municipalities. Crucially, as part of the scheme, financially constrained councils could oblige producers to pay them for (1) subsidizing those SEs that are engaged in reuse and upcycling activities, including collection of bulky items (e.g., textiles and bulky furniture are strong candidates for EPR schemes), (2) subsidizing those SEs that are engaged in commercial clearances and cannot dispose remaining commercial waste in municipal recycling centres, and (3) capturing some of their commercial waste. Public authorities at local, regional and national levels could also coordinate the creation of a national fund that could emerge thanks to levies paid by producers on new products that are within EPR schemes (i.e., fees paid by private companies to Producer Responsibility Organizations). Such national fund could ideally enable to further support costs associated with SE-led reuse and recycling/upcycling activities, as well as those costs that are associated with the introduction and maintenance of: (1) new collection points and take-back schemes; (2) consumer campaigns to promote sustainable consumption and a culture of reuse/upcycling (instead of recycling); (3) a more diversified/advanced infrastructure (enabling SEs to capture particular waste streams and facilitating private-public contract negotiations with regards to collaborative procurement processes advocating for more involvement of reuse SEs in waste management<sup>76</sup>); and (4) incentives for producers to support circular SEs and design products that are more suited for reuse and contain quality label (cf. Charity Retail Association, 2020).

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<sup>76</sup> Findings revealed that HCC used to have a more advanced recycling infrastructure (which is important for the functioning of EPRs schemes) as there used to be around 100 recycling stations around the city for basic commodities, yet they were small-scale and expensive to maintain; many residents did not

*iii. Multi-scalar Approach to Collaboration for the CE*

The research findings from the City of Hull suggest the need for a regional approach to the CE that would entail collaboration among local authorities across the Yorkshire and Humber region. This would ideally enable to jointly identify the wider strategic CE opportunities across region and to build and develop those strategically. It would be also worth considering having a localised recycling centre in Hull so that East Riding's waste could go to the same place, yet it would be potentially possible to better capture individual waste fractures that could serve as inputs for another production cycle in SEs. Moreover, regional collaboration could result in financial capital being injected into the most deprived parts of the region. In a similar fashion, collaboration with local authorities across the UK, yet around the Social Value Act, could lead to valuable partnerships that could improve procurement and commissioning practices.

*iv. Asset Transfer Scheme for the CE*

In Hull, there is potential to repurpose vacant/derelict urban and public sector-owned infrastructure into spaces where SEs could run their activities (e.g., circular community hubs - 'mini-ecosystems' working in different parts of the city - that could act as incubation spaces for a number of entrepreneurs and local residents willing to coalesce around local issues). This could be facilitated through the establishment of an asset transfer scheme that would ensure that any outputs/outcomes from the use of public sector-owned built infrastructure correspond to the HCC's priorities and CE agenda (which is underway). Working with the national agenda on Community Asset transfers/Lettings could help to develop such a scheme for the city (see 8.5i).

*v. Taxation*

The research findings suggest the need for national authorities in the UK, Chile, and Austria to offer SEs lower taxes (unless they are registered as charities). This is even more important given that SEs generally help public authorities to reduce costs elsewhere in the system in the long-term. Crucially, taxes alongside other financial incentives could potentially help many SEs to confront contested notions of welfare capitalism attached to their practices by reducing their reliance on state subsidies/grants in favour of more self-sufficiency.

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have enough space to store additional bins needed. Introducing such novel EPR schemes would thus entail more complexity and create new challenges requiring solutions.

vi. *Digital Platform*

Public authorities could become interested in seeking (corporate) sponsorship to develop and maintain a digital platform that would include the directory of organizations (including large industries) offering and/or seeking particular items in a given city/region (the generated *social circular ecosystem* map in this research can serve as a starting point for the content of such a digital platform in Hull). It would be, however, necessary to prevent any free-riding and ensure that inter-organizational synergies are fostered. Such a digital platform could ideally support the creation of a municipal or private sector-owned/funded de-construction hub where many wasted materials from disassembled buildings (i.e., the so-called commercial waste) could be stored, repurposed and resold.

vii. *Tourism and Culture*

There is a potential for local authorities and public sector organizations to promote CE through cultural and tourist organizations such as museums and art galleries, for example through zero-waste exhibitions. The City of Hull could use its 'UK City of Culture 2017' legacy as a starting point to rebrand the city as 'creatively circular', potentially developing a creative CE identity among its residents. This is where synergies between the arts sector and SEs engaged in upcycling activities could be fostered.

#### 8.4.2 Recommendations for Private Companies

[The ISCIRVIS Toolkit \(Appendix 8\)](#) may be useful to private companies (not only to SEs) interested in sustainability transitions. It is also recommended that private companies offer SEs corporate sponsorship and space for (circular) activities, as well as engage in corporate volunteering, social procurement practices and related EPR schemes, in order to benefit social-circular enterprises.

i. *SE-aided EPR Schemes*

SEs can help private companies to ensure product stewardship whilst boosting private companies' CSR and lowering their waste management fees (SEs usually offer lower disposal rates than the commercial ones and they may transform waste into valuable items). Ensuring that SEs lead discussions/negotiations on EPR schemes is even more important given that any implementation of mandatory EPR schemes is likely going to be met with resistance from private companies that are afraid of incurring additional costs. SEs could, in turn, benefit from corporate sponsorship and funds obtained from service delivery (e.g., concerning waste collection from private companies or B2B transactions in case SEs transform waste from private companies into corporate gifts for the same companies). SEs could also benefit from having removed fees for disposing non-reusable or unsaleable items from commercial

companies. In any case, private companies should make evident, in an accurate and transparent fashion, the significant use of their buying power to generate social/environmental value and avoid corporate greenwashing. This could be supported through policies at the national level.

It is also vital to ensure that there is a ground for contract negotiations between large commercial waste management companies and SEs, so that SEs can capture potentially reusable items from waste recycling centres. This would, however, require a certain degree of elasticity not only from those large private companies but also from public authorities who usually find it less financially risky/more cost-effective to enter large-scale contracts with regional or national companies rather than local providers (cf. Morgan, 2008).

### **8.4.3 Recommendations for Funders and Support Infrastructure Organizations**

Although SEs are increasingly required to justify the use of their resources and ‘prove and improve’ their impact in funding applications (Sanfilippo, 2006), findings demonstrate that there is a lack of pressure on SEs to identify circularity at the organizational level, not to mention evaluating it. While grant donors are increasingly becoming more specific in their funding requirements, SEs applying for funding are not always required to demonstrate (expected and resultant) social and environmental outcomes related to sponsored projects. It is therefore important to ensure that funders demand SEs to provide assessments of expected and actual sustainability impacts (both qualitative and quantitative), and which would ideally involve contribution of their resources, practices and strategies to the (local) development of the CE. Crucially, funders should try to ensure that less established SEs can win bids, for example by supporting access to quality training (run by SIOs) on how to write successful bids and, on a related note, on how to evaluate and showcase their actual and desired impacts. As Chapter 6 revealed, SIOs can also act as brokers that can connect previously disconnected actors whilst fostering more circularity. Besides, SIOs could facilitate forums for local people working in the field of the CE so that they could connect. SIOs do, however, likewise require funding to support (circular) SEs. The research findings revealed that unlike in Santiago (Chile), there is no funding from local or central government for SIOs supporting SEs in the City of Hull (UK). It is hence important to ensure that such funding is made available.

SIOs have an important role to play when it comes to promoting a culture of innovative entrepreneurship, including the provision of support to small and family-run businesses engaged in circular practices to help them become financially sustainable and visible in the market. Financial autonomy should ultimately lead to the widespread ownership of capital/productive property as opposed to retaining it in the hands of a few. SIOs should also

foster a collaborative environment among entrepreneurs so that they could jointly confront competitive mainstream market forces. This can be facilitated by seeking funds to subsidize the development of alternative digital platforms (i.e., those that are not owned by large corporations). Ideally, SIOs would also set up a series of multistakeholder workshops enabling to reflect on stakeholder interactions and ultimately leading to potential coalitions (Ackerman & Eden, 2011:181).

It is also important to ensure that entrepreneurs and SIOs have access to relevant lobbying bodies. An important role here play national SIOs such as Charity Retail Association or WRAP (UK), and SEs offering advocacy such as Triciclos (Chile), all of which lobby in favour of circular public procurement and EPR schemes. This is even more important given that local authorities have no power over private companies when it comes to encouraging them to procure socially responsible goods and services from local SEs.

#### 8.4.4 General Multi-stakeholder Recommendation: Brokerage

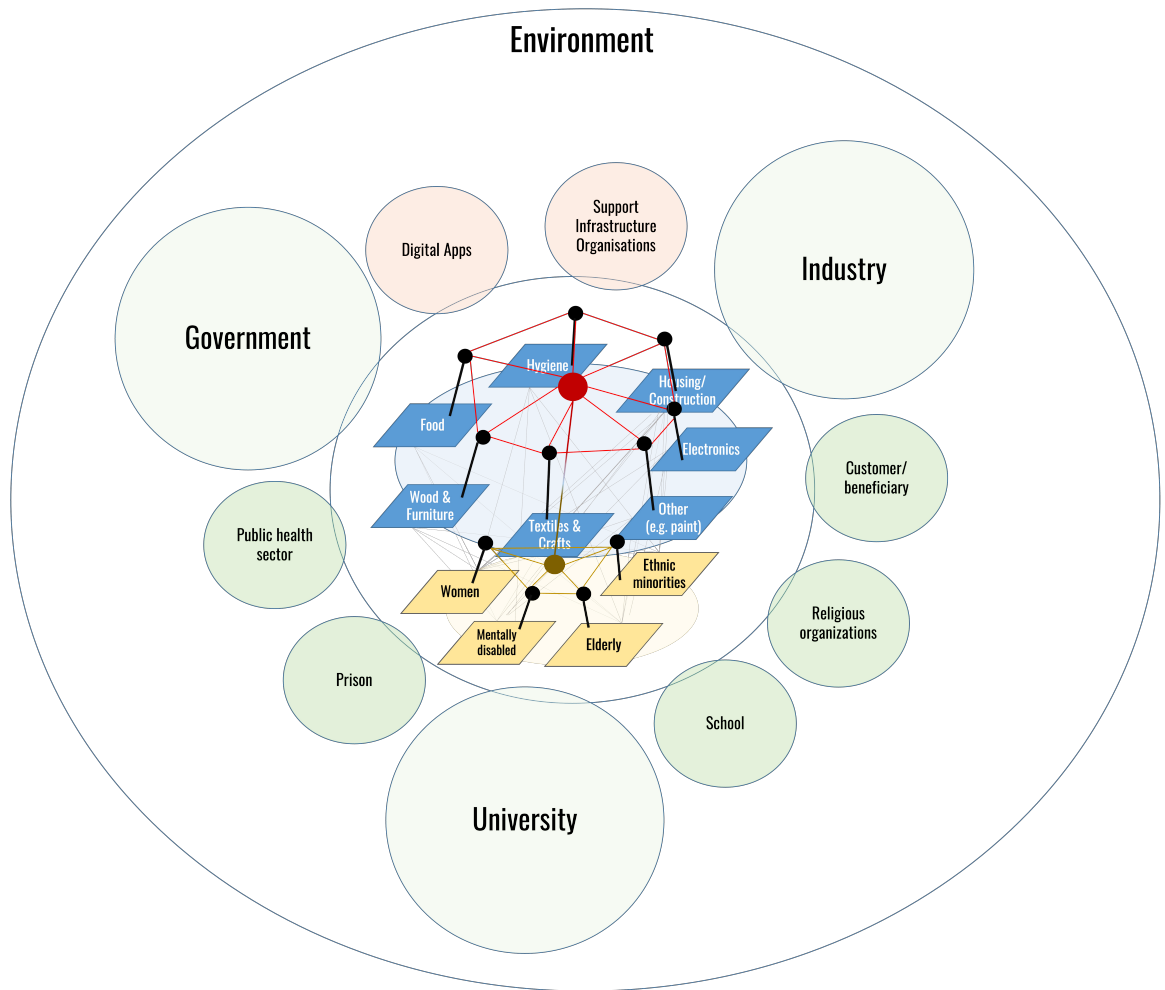
Diffusion of CE thinking and practice can be facilitated through relevant ‘circular brokers’ and ‘spreaders’ who deserve more recognition in sustainability transitions towards the CE, especially with regards to governance at the city and regional level (Fischer and Newig, 2016; Gliedt et al., 2018; Ciulli et al., 2020). Drawing upon research findings from Hull and Quintuple Helix Innovation model<sup>77</sup> (Carayannis et al., 2012), Figure 8.7 below is a visual representation of the proposed networked form of governance facilitating the development of the CE in Hull. It suggests how different actors (operating at different spatial scales and embedded within the broader environment) could collaborate for the CE<sup>78</sup>. This includes appointing representatives of each ‘sector’ (e.g., textiles) to jointly collaborate with other representatives and public/private/social sector organizations. Figure 8.7 also highlights the need to ensure that digital technologies (comprising social media platforms that speedily facilitate reachability) receive necessary support. This is because they can assist SEs and their networks in networking, transacting, maintaining and reconfiguring connections whilst enabling and accelerating diffusion of CE thinking and practice, and thus fortifying circular SE ecosystem regardless social or geographic positioning of brokers.

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<sup>77</sup> The proposed framework is an extension of Carayannis et al.’s (2012) Quintuple Helix Innovation model

<sup>78</sup> Government (local authorities/HCC), industry and university (i.e., triple-helix actors) represent the core subsystems of the model through and from which knowledge inputs and outputs circulate across the entire system whilst generating more knowledge. Ties of SEs to those triple helix actors underpin their *“efficient access to markets, partners, knowledge and services both locally and globally”* (Papagiannidis et al., 2009:215).





**Figure 8.7 - The interplay of a diversity of actors as brokers**

Note: Black dots indicate ‘representative brokers’ associated with a particular ‘cluster’ (black); yellow boxes indicate socially-oriented SEs (represented by a common broker – yellow dot); and blue boxes indicate environmentally-oriented SEs/SEs that particularly deal with secondary resource flows (represented by a common broker – red dot).

## 8.5 Future Research Directions

This final section outlines several future research directions stemming from this thesis.

### i. Circular Community Assets Mapping

With reference to creating an asset transfer scheme in the City of Hull (8.4.1iv), future research could conduct a thorough participatory community assets mapping exercise, which would result in a robust inventory of buildings/vacant spaces owned by private and public sector organizations, and which could be potentially subject to concessionary lets or asset transfers for use by SEs so that they could improve the delivery of their (circular) services. Such an inventory should be ideally accompanied with information on any potential property maintenance and refurbishing costs, which are usually high in case of old and derelict buildings. Such research would also enable to find out many more synergies between respective assets in

different neighbourhoods in a given city/area under scrutiny (see Appendix 4 featuring findings from such previous mapping exercise). The resultant maps from different cities (or even rural areas) could lead to further cross-fertilization of ideas.

## ii. SE Networks

While this thesis mapped and investigated network patterns underpinning social circular enterprise ecosystem in a structurally disadvantaged city wherein many SEs offer cut-price circular products and services for the socially excluded and/or financially struggling individuals (ironically implying that deprivation, to some extent, creates a market for the CE) (Chapter 6), future research could map and interrogate development of a circular SE ecosystem in more socially and economically prosperous cities. In prosperous/wealthy cities social inclusion in the CE might, in fact, concern disabled/mentally struggling individuals engaged in CE practices more than those who find themselves in a financially precarious situation. Such research would ideally call for more regional and/or national collaboration between less and more developed cities for the CE development. Further research could also explore in more depth organizational and network variables (other than those highlighted in Chapter 6) that may impact the formation of circular ties, for example gender (see 8.5iii). Moreover, future research could examine in more depth SEs' internal networks and their interaction with external networks whilst examining relationships between internally possessed resources and those that are possessed by external actors. This is because such relationships are very likely to influence the performance of a given SE and, linked to this, adoption of CE thinking and practice.

## iii. Circular Entrepreneurship and Gender

The research findings suggest that social-circular entrepreneurial ecosystems should be female-friendly as women are usually more inclined than men to emphasize the quality of life and community logic (rather than solely entrepreneurial-market logic), hence making the ecosystem more cohesive and resilient (Malecki, 2017). Women may also impact the formation, composition and functioning of SE networks (cf. Hanson & Blake, 2009). Another research venue thus concerns women in circular entrepreneurship, yet in different national contexts to account for variegated cultural and institutional challenges that may prevent women from running their own circular ventures.

## iv. Impact Assessment

Given that SEs are increasingly required to justify the use of their resources and make evident their impact by embedding transparent accountability mechanisms, especially when it comes

to applying for funding or trying to attract new partners/impact investors (Sanfilippo, 2006), there is a research opportunity to design better circular impact evaluation frameworks for SEs. While there are many impact evaluation frameworks for SEs, existing metrics for SEs could benefit from available circularity indicators that are specifically developed for private companies. Such frameworks should help SEs to prioritize those CE practices that are desirable in the long-term, as well as help them to identify and measure/estimate any potential rebound effects arising from pursuing specific socio-environmental strategies at particular scales and in dynamic environments.

#### v. Standardized conception of SEs

While this research provided a novel typology of SEs engaged in CE practices (Chapter 5), future research could co-develop with policy makers and entrepreneurs a robust typology of SEs that would propose a more standardized conception of SEs for legal frameworks. This would ideally also involve collaboration with SIOs such as *Sistema B*, which calls for introducing an official legal structure for SEs in Chile.

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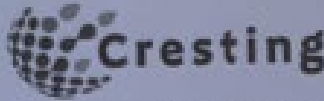
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# Appendices

## Appendix 1 – Consent Forms

**UNIVERSITY OF HULL**

**Cresting**  
<http://cresting.hull.ac.uk>

UNIVERSITY OF HULL  
Department of Geography, Geology & Environment

**CONSENT FORM (For Institutions/Organisations)**

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I, [REDACTED] of [REDACTED]

Hereby give permission for [REDACTED]

to be involved in a research study being undertaken by Malgorzata Lekan from the University of Hull, and I understand that the purpose of the research is to examine the role of social enterprises in driving a transition toward more social and inclusive circular economy.

**I understand that**

1. The aims, methods, and anticipated benefits, and possible risks/hazards of the research study, have been explained to me.
2. I voluntarily and freely give my consent for the institution/organisation to participate in the above research study.
3. I am free to withdraw my consent at any time during the study, in which event participation in the research study will immediately cease and any information obtained through this institution/organisation will not be used if I so request.
4. I understand that aggregated results will be used for research purposes and may be reported in PhD thesis, as well as scientific and academic journals.

**I agree that**

4. The institution/organisation MAY / MAY NOT be named in research publications or other publicity without prior agreement.
5. I / We DO / DO NOT require an opportunity to check the factual accuracy of the research findings related to the institution/organisation.
6. I / We EXPECT / DO NOT EXPECT to receive a copy of the research findings or publications.

Signature: [REDACTED] Date: 19.10.20

The contact details of the researcher are:

**Malgorzata Lekan (Research Fellow)**, Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom, tel. +44(0)7821470000, m.lekan@hull.ac.uk  
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The contact details of University of Hull, Department of Geography, Geology & Environment's Ethics Officer are: Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom, tel. 01482 466353

UNIVERSITY OF HULL

Departamento de Geografía, Geología y Medio Ambiente

FORMULARIO DE CONSENTIMIENTO (para instituciones / organizaciones)

Yo, [REDACTED] ..... de [REDACTED] .....

Por la presente otorgo permiso para participar en un estudio de investigación realizado por Malgorzata Lekan de la Universidad de Hull, y entiendo que el propósito de la investigación es examinar la capacidad de las empresas sociales en impulsar una transición hacia una economía circular más social e inclusiva.

**Yo entiendo que**

1. Me han explicado los objetivos, métodos y beneficios anticipados, y los posibles riesgos / peligros del estudio de investigación.
2. Doy voluntaria y libremente mi consentimiento para que la institución / organización participe en el estudio del proyecto.
5. Soy libre de retirar mi consentimiento en cualquier momento durante el estudio, en cuyo caso la participación en el estudio de investigación cesará de inmediato y cualquier información obtenida a través de esta institución / organización no se utilizará si así lo solicito.
3. Entiendo que los resultados agregados se utilizarán con fines de investigación y se pueden incluir en tesis doctorales, así como en revistas científicas y académicas.

**Estoy de acuerdo que**

4. La institución / organización PUEDA / NO PUEDE ser nombrada en publicaciones de investigación u otra publicidad sin previo acuerdo.
5. Yo/ Nosotros REQUERIMOS / NO REQUERIMOS una oportunidad para verificar la exactitud de los hechos y los resultados de la investigación relacionados con nuestra institución / organización.
6. ESPERO / ESPERAMOS / NO ESPERAMOS recibir una copia de los resultados de investigación o publicaciones.

Firma: [REDACTED]

Fecha: 10/03/2020

**Los datos de contacto del investigador:**

Malgorzata Lekan, Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom, tel. +44(0)7821470000, m.lekan@hull.ac.uk.  
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The contact details of University of Hull, Department of Geography, Geology & Environment's Ethics Officer are: Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom, tel. 01482-465353

## Video Consent and Release Form

I hereby give my consent to Malgorzata Lekan from the University of Hull, to use my image and likeness and/or any interview statements from me in its publications, advertising or other media activities (including the Internet). The purpose of the research is to examine the role of social enterprises in driving a transition toward more social and inclusive circular economy.

This consent includes, but is not limited to: (please tick where applicable)

\_\_\_\_\_ - (a) Permission to interview, film, photograph, tape, or otherwise make a video reproduction of me and/or record my voice;

\_\_\_\_\_ - (b) Permission to use my name; and

\_\_\_\_\_ - (c) Permission to use quotes from the interview(s) (or excerpts of such quotes), the film, photograph(s), tape(s) or reproduction(s) of me, and/or recording of my voice, in part or in whole, in its publications, in the Internet and as part of the PhD research.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Address: \_\_\_\_\_

Phone number: \_\_\_\_\_

Date: 9.07.2020



UNIVERSITY OF HULL  
Departamento de Geografía, Geología y Medio Ambiente

**FORMULARIO DE AUTORIZACIÓN DE VIDEO/AUDIO**

Yo, [REDACTED] de [REDACTED] .....

Por la presente otorgo mi consentimiento a Malgorzata Lekan de la Universidad de Hull, para que use mi imagen y/o cualquier declaración de mi entrevista en sus publicaciones, publicidad u otras actividades de los medios de comunicación (incluido Internet). El propósito de la investigación es examinar la capacidad de las empresas sociales en impulsar una transición hacia una economía circular más social e inclusiva.

Este consentimiento incluye, pero no se limita a: (marque donde corresponda)

[REDACTED] - (a) Permiso para entrevistar, filmar, fotografiar, grabar o hacer una reproducción de mi en forma de un video;

[REDACTED] - (a) Permiso para entrevistar y / o grabar mi voz;

[REDACTED] - (b) Permiso para usar mi nombre; y

[REDACTED] - (c) Permiso para usar citas de la (s) entrevista (s) (o extractos de dichas citas), el video, fotografía (s), cinta (s) o reproducción (s) de mí, y / o grabación de mi voz, en parte o en todo, en las publicaciones (tesis doctorales, revistas científicas y académicas), en Internet y como parte de la investigación doctoral.

Nombre: [REDACTED]

Firma: [REDACTED]

Dirección: [REDACTED]

Número de teléfono: [REDACTED]

Fecha 10/03/2020

**Los datos de contacto del investigador:**

**Malgorzata Lekan**, Department of Geography, Environment and Earth Sciences, University of Hull, Cottingham Road, Hull, HU6 7RX, United Kingdom, tel. +44(0)7821470000, m.lekan@hull.ac.uk.  
E: m.lekan@hull.ac.uk T: +44(0)7821 470000

## Appendix 2 – Interview Questions

### History of organisation/Origins/ Background/ Legal structure

- When and how did the organisation emerge? (circumstances)
- What is the size of organization and how it evolved over the years (number of employees)?
- What is your legal structure? Are you a 'social enterprise'? Have you considered changing status?
- Are you self-employed? (part-/full-time)
- Would you describe the organization as mainstream/formal or alternative/informal?
- Do you follow any formal norms or do you operate according to established norms?
- Are you rooted in any community? Are you community-based or more customer-based? (if you are engaging with communities, how do you get to know their problems and connect with community values? If you are not engaging with communities, would you be interested in working with/for communities?)
- Who are your beneficiaries?

### Problem space

- What problems are you trying to solve?
- How well do you understand the problem space and problems you aim to solve?
- How dissatisfied are you with the current political system?
- Are you uncertain about the future? What are the main drivers of such worries?
- Do you keep searching to identify new problems that are not being solved by market mechanisms or public sector?

### Circular Economy

- Have you heard about this concept before? If yes, where/when?
- How do you define it/ what does it mean to you? Is it just a trendy term?
- Would you be interesting in using this term, for example as part of your organisational mission?

### Mission, objectives, Value Proposition & Activities

- What is your mission/objectives/aims/value proposition?
- How clear is your sense of mission?
- What is your long-term strategy around concrete objectives and priorities and managerial infrastructure such as particular organizational structures and processes?
- What kind of activities do you offer and are they circular?
- Are they more social or environmental in nature? Which dimension is more important?

### Legitimacy and trust

- Do you have a good reputation? How did you work toward it?
- Have you experienced any issues/failures when trust & legitimacy was possibly damaged?

### Challenges

- Have you faced any challenges, failures? Please elaborate.

### Biggest success

- What was your biggest achievement?
- What do you attribute success to?

## Market

- What kinds of markets exist for your goods and services? Could you define them as 'alternative'/informal or 'mainstream'/formal markets?
- Are you seeking new markets? How? Which ones would be of your interest?
- Is the market demand high/low? How many buyers or sellers are in each market?
- How do you market your commodities/services to generate demand?
- How helpful are networks in accessing markets/customers?
- Would you like to break out of niche markets?
- What kind of power is wielded by buyers or sellers?
- Can new entrants easily enter the market or are there constraints?
- Do you network with other social enterprises to create sustainable value that would stabilize and strengthen supply chain flows that most major companies cannot offer?
- Do you get a lot of attention and admiration from funders, public sector and media?
- How affordable are your products/ services?
- Would you be interested in making 'corporate gifts'?

## Transactions

- What kinds of goods and services are exchanged in non-market/non-monetary ways?
- Are some goods bartered, gifted, gleaned, poached, stolen and/or donated? With whom?

## Mapping

- Identify actors with whom you collaborate (public/private/social) and on which level (local/national/international etc.).
- Are you a member of any broader network?
- Is it difficult to maintain those connections?
- Identify tangible and intangible resources/assets, which are exchanged with each actor (see Auxiliary Table 8.1). Specify ownership of respective assets.
- Specify whether connections are unidirectional or bidirectional.
- Specify frequency of interactions during a year.
- Specify levels of trust (0-5) underpinning each connection.
- What has helped you to generate trust? (contracts? reputation?)
- Have you encountered any problems related to trust/legitimacy?
- Specify formal and informal connections.
- Identify competitors.

## Impacts

- Specify on whom you have an impact and specify what type of impact it is.
- Is there any power imbalance that may affect your impacts/mission/objectives?
- Specify who has impact on you and what kind of impact it is.
- Have you experienced any past/present conflicts with anyone?
- Identify any subproducts/waste from your activities - what are you doing with it?
- Identify long-term and short-term impacts, and any unintentional impacts.
- What is your desired vision for the future? (next 5/10 years)
- Where would you like to have more impact?
- Do you seek to diversify/expand your activities? How? What scaling strategies are you using?
- What is the role of CE in your vision for the future?
- What are your needs (resources/connections) to achieve desired vision of the future?
- What barriers could prevent you from scaling? (e.g. political/technological/socio-cultural)
- Are there any policies and programmes that provide safety nets for failure? Are there any policies that enable creativity and experimentation to flourish?
- Are there any policies and programmes that provide safety nets for failure? Are there any policies that enable creativity and experimentation to flourish?





### Appendix 3 – An Overview of SEs and their Activities




Sector	SE	Year	Staff no	Waste Management						Actual	Potential/Desired (scaling strategy)	Social Value		Economic Value	Key strengths	Key needs	Potential links
				Refuse	Reduce, Share	Resell, Reuse, Donate	Repair	Remanufacture, Reproduce, Refurbish	Repurpose			Recycle	Actual				
	1) EMS (charity/Ltd)	2009	4	R 1						share kitchen locally with Freedom Center	composting scheme	food aid to the poor		grants (national); donations (national, regional, local); corporate sponsorship	broad contacts; CSR; business advice to other SEs	funding	ROPO Design (sanitary towels)
				R 6						make food meals out of food surplus		teach communities new cooking skills					
				R 5						redistribute food surplus		community gardening					
				R 2						rented/shared premises							
				R 1						repurpose vacant urban land for urban agriculture							
	2) FareShare Hull & Humber (charity)	2011	7-8 (+35 v.)	R 2						redistribute food surplus	open new premises in other parts of the region	food aid to the poor	awareness raising food events	food trays/membership fees (local, regional)	4 vans; corporate volunteerism	financial support (infrastructure bigger warehouse)	VCSEs
				R 1						rented premises	larger premises (to redistribute more & run kitchen and training center)	training scheme for workers/volunteers					
	3) Hull Foodbank (charity)	2011		R 2						redistribute food surplus		food aid to the poor	grants and donations (national, regional, local); 90% public donation	broad contacts - referrals; people-oriented (support for beneficiaries)	financial support; volunteers	other Food banks; community centers (redistribution); Hull CVS (volunteers)	
				R 1						rented premises & free space from church and community center to facilitate redistribution		advice to vulnerable individuals					
R 3									offer donated clothes free of charge to those in need	campaigns ('Clean plate')							




Food	4) Bameen (CIC)	2013	2		R 6	composting	consulting services (private sector)	educational workshops for ethnic minorities & refugees	educational workshops for schools	grants; consultancy services	ca. 600 beneficiaries	financial support	Unity in Community
					R 1	planters from upcycled wood	training services	food aid to the poor					
					R 2	redistribute food donations	CE workshops (upcycling) & awareness raising	nutritional workshops; delivery of ready meals to those in need					
					R 1	rented premises; use of local assets (community halls)	policy lobbying						
	5) Rooted in Hull (Private company limited by guarantee)	2013	ca. 8 (+ ca. 24 v.)		R 6	composting (incl. compost toilet)	increase outputs (sales)	volunteers (incl. from the local prison); interns for local college students (joinery, construction, plumbing); space for local artists; corporate & citizen meeting space	grants (public and corporate; national, regional, local); increase sales of food products (from local enterprises and international/national/regional companies)	strong community embeddedness; openness & broad contacts	financial support	hospitals	
					R 1	rented premises; local food delivery on cargo bikes; reduce carbon footprint by locally growing food and using solar panels; planters from upcycled wood							
					R 5	repurpose old containers (e.g. to use them as a shop or bakery)							
					R 2	refillable station for detergents							
	6) Down to Earth (CIC)	2015	4		R 6	composting & lombriculture	compost toilet	edu. workshops (schools/elderly/mentally struggling) - improved access to green spaces & well-being)	grants (national); increase educational workshops to become financially sustainable	community embeddedness	financial support; find associates with relevant skills; staff work-shops to run more activities	Tree-cycle; Brain Recovery	
					R 1	local food growing; seeds are saved from wildflowers and vegetables; rainwater harvesting; tool maintenance	food gleaning sessions						
					R 4	use recycled wood for planters							
					R 2	rented urban allotment							

7) Prana Sopas (S.P.a.)	2017	3	♀	R 2	reusable glass jars (made in Chile); rented space	rent bigger kitchen	raise environmental awareness using reusable packaging	baby food	sales (including provision of soups for large corporate events); corporate gifts	good reputation	financial support; employees; bigger premises & better marketing	local farmers
				R 6	composting organic matter		healthy meals	expand audience (entire Chile and beyond)				
8) Ecología en tu Barrio (S.P.a.)	2016	2 (cooperative) & 6 (products)	♀	R 1						composting techno-logy; compo-ting containers; open to new alliances; knowledge of providers	financial support; marketing (to reach vulnerable groups); better networking; time; better equipped staff with knowledge on environmental management; better operational capacity & infrastructure & vehicles	food growing enterprises; School of Architecture (so that housing infrastructure has spaces for urban farms & composting); private companies (clients); restaurants (connect them with households that would use food waste as a compost)
				R 5	repurpose vacant urban land for urban agriculture; rented premises	fabricate composting technology in Chile	raise environmental awareness, also among disadvantaged people	reach more disadvantaged, poor communities	collection/composting service for neighbourhoods/households/private companies/2 municipalities; project management service; trainings			
				R 6	composting organic matter (use of earthworms)	use raw materials derived from composting to develop parks						
9) Súper Justo	2013	2	♀	R 1						ty embeddedness; open to new connections; 9 shops across different national districts; good management skills	improved marketing; financial support; human capital (admin tasks)	small entrepreneurs with similar values; farmers
				R 2	customers can refill their own packaging with food; provide reusable packaging; SE sources bulk food in reusable or biodegradable packaging	import more local or at least country-based food products	raise soc- env awareness; edu. workshops, campaigns (e.g. 'Jar Bank') and talks (schools & univ.)	reach more clients				
				R 6	composting	offer bike delivery	support for solo entrepreneurs in Chile; accept products of small entrepreneurs	offer retired individuals a possibility to contribute (e.g. financially/helping to run activities)	sales			
			R 5	repurpose vacant urban land for urban farming	offer more products	just commerce						




		10) Recycling Unlimited (charity)	2004	♀	R 0	2-3PT & ca. 30V					non-toxic detergents (for sale)	open more shops across Chile	healthy food & skin care products				communi		
											repurposing/upcycling wooden pellets; repurpose containers (into selling spaces) ↑	repurposing/upcycling wooden pellets and wood (incl. offcuts); furniture; second-hand textile components	social space and work placement for mentally struggling people						
		11) Humber Wood Recycling (under Dove House Hospice)	2014		3 FT 3 PT 6 V		R 3	R 4	R 5	R 6	repurposing/upcycling wooden pellets and wood (incl. offcuts); furniture; second-hand textile components	selling locally sourced compost	training module for volunteers (incl. env. modules)	upcycling workshops	sales (incl. services within the North East Lincolnshire and Yorkshire)		vans; good marketing & reputation (word of mouth); ethical referrals (e.g. refer customers to Recycling Unlimited) expensive machinery; knowledge sharing with local community organizations	financial resources (to bring more qualified staff)	environmentally-oriented SEs and private companies; HCC (their garden waste for composting)
											occasional small-scale repairs of outdoor furniture or windows for individual clients	diversify products (e.g. coffins out of recycled wood for Dove House Hospice's patients)	many diverse clients (incl. schools)						
											selling retrieved components (e.g. metals to ironmonger)	repurpose vacant urban land behind the main premises	work with local prison where furniture are upcycled ('Rework' scheme)						
											rented premises	own shop in a different part of the city							
											rewilding projects								

Furniture & Wooden crafts	
<p>12) Cat in the Sack (self-employed, sole trader)</p> <p>2017</p> <p>2 PT</p> <p>♀</p> <p>R 1</p> <p>rented premises; space for other makers to display their products</p> <p>upcycle and refurbish furniture; <b>second-hand textile components</b>; collages using old newspapers</p> <p>online shop</p> <p>furniture upcycling workshops &amp; other awareness raising workshops</p> <p>sales; commissioning fees; workshops</p> <p>grassroots community of ca. 40 local artists and makers (handmade items; ca. 10 are circular/zero-waste), open to share advice to other entrepreneurs</p> <p>website (improved marketing); customers; time; financial resources</p> <p>Life and Loom (workshops)</p>	<p>13) Emmaus Hull &amp; East Riding (charity)</p> <p>ca. 13</p> <p>♀</p> <p>R 2</p> <p>re-sell <b>second-hand clothes</b> and furniture</p> <p>open more social enterprises (shops)</p> <p>work insertion scheme for homeless and vulnerable individuals</p> <p>Rough Sleeper Outreach service for HCC and East Riding Council</p> <p>corporate volunteering</p> <p>better expose environmental benefits in marketing</p> <p>sales; grants and donations; corporate sponsorship (desire to become self-sufficient)</p> <p>good reputation; proactive on social media; influential voice within local authority networks; offer forum for those suffering from (food) poverty/domestic violence</p> <p>financial support</p> <p>private companies</p>
<p>14) Eternal Benefits (charity and pic)</p> <p>2003</p> <p>1 FT (but PT wage) &amp; ca. 35 V</p> <p>R 2</p> <p>re-sell <b>second-hand clothes, furniture &amp; bric-a-brac</b>; redistribute food surplus</p> <p>new premises for upcycling workshops (for work insertion among disadvantaged youth)</p> <p>support for children (meals), homeless &amp; those escaping domestic violence, prostitution and prison; activities for elderly &amp; youth</p> <p>upcycling workshops (enabling work insertion among disadvantaged youth)</p> <p>sales of items collected all over the city (but people can also pay as much as they can offer); grants and donations (from private companies)</p> <p>community embeddedness; 2 vans; open to collaboration; own the premises; referral system</p> <p>financial support (to hire skilled management and mentoring staff and someone good in bid writing); time (to attend training workshops)</p>	<p>R 3</p> <p>minor repairs</p> <p>social space (café)</p> <p>training for volunteers (shop management, café management, transport, collections, delivery)</p> <p>replicate cafes across Hull via church networks</p> <p>churches (church networks); Treecycle (mentoring?)</p>
<p>R 5 6</p> <p>meals out of food surplus (for free or affordable prices); repurposed vacant urban land (memorial and small gardening project with composting)</p>	<p>R 5 6</p> <p>meals out of food surplus (for free or affordable prices); repurposed vacant urban land (memorial and small gardening project with composting)</p>






 15) Treecycle (solo trader)	2019	1 PT	R 1	R 4 R 5	repurposing/ upcycling wood from charity shops, parks, streets (fallen trees)	share space with others	urban garden is disabled friendly	educational workshops	sales of wooden crafts; educational workshops	teaching skills; joinery skills	partner to share space with (to enlarge the workshop facility)	HWR; Recycling Unlimited; Eternal Benefits; Age Hull UK & Men in Shed (knowledge exchange); Giroscope (selling space in St Matthew's Church)
					sell items in local shops							
 16) Rincón del Pallet (S.p.A)	2016 ?	3 PT/FT + some friends help around	R 0	R 5	repurposing/ upcycling wooden pellets and wood (incl. offcuts)	open their own shop in Santiago & access other shops across the country	free educational workshops for schools with disadvantaged children (e.g. Down syndrome)	offer more workshops to diverse groups of people	sales (incl. corporate gifts) online and in a small local shop (Casa Azul Pirque); occasional grants via lotteries	open to collaboration; tailor-made & creative products	more employees (but needs to grow bigger); bigger premises with more equipment; van	other SEs; NGOs; artists; hotel (space for sales of artisan products)
					organic concrete (partnership with another entrepreneur)	diversify products	gift products to lotteries	offer higher-than-minimum salary to workers				
					bigger premises to recycle more	reach different types of customers; access mainstream supermarkets (e.g. Walmart)						
 17) Don Pallets (brand of Laboratorio Creativo Sustentable Labsus - private company)	2013	2 FT + 7 (PT)	R 1	R 4 R 5	repurposing/ upcycling wooden pellets (e.g. recycling stations for private companies)	expand Don Plastico, Don Tetrapak, Don Vidrio (they currently exist in 'mind' only)	educational workshops for local cultural and community organizations	reach older audience	sales (incl. corporate gifts); workshops (many are indirectly funded by local authorities); rental service	open to collaboration; creative products	own workshop premises, a van and a machine to recycle plastic; more time (inability to hire more people)	private companies (incl. construction companies)
					rented premises (but would like to own); rental service for other enterprises/ big events	recycle plastic/ make plastic objects	occasional donations of products to NGOs/Ses (e.g. TECHO)	lobbying (eliminate bureaucracy)				
					work for hospital (wheelchairs incorporating reclaimed metals)							

	18) Life and Loom (company)	2019	1 FT	R 1	R 2	<p>rented premises (from Giroscope) and offer room hire for other entrepreneurs &amp; renting equipment ('Loan a Loom')</p>	<p>product diversification via upcycling</p>	workshops for a broad audience	workshops for retired people (from U3A) and potentially ex-offenders or other struggling individuals	<p>sales; workshops; monthly membership fees; occasional grants; savings from donations of yarn</p>	<p>open to collaboration; teaching skills; 3 sewing machines</p>	<p>financial support; volunteers; bigger premises; marketing (second-hand goods) and building brand/reputation; another employer (but: lack of financial capacity)</p>	<p>private companies (corporate sponsorships and gifts); local makers; HWR/Recycling Unlimited (to make more frame looms out of reclaimed wood); University of the Third Age (U3A); Age Hull UK (workshops); schools (textile department); ArtLink and Hesse Road Community (workshops); potentially interested in collab. with large clothes retailers</p>		
				R 2	<p>second-hand equipment (incl. a sewing machine)</p>	work insertion scheme for people with mental and physical disabilities (those people later run workshops)		expand online audience							
					R 6	<p>turn unsold second-hand clothes from charity shops into balls of yarn, rugs and bags; weaving with reclaimed plastic</p>									
					R 5	<p>frame looms made out of reclaimed wood</p>									
	19) ROPO design (solo trader)	2020	1 PT	R 1	R 5	<p>repurpose fabrics (linen) leftovers from industrial process</p>	<p>procure fabrics from local factories (possibly also charity shops)</p>	<p>diversify products (reusable sanitary pads)</p>	<p>work integration scheme</p>	<p>sales (reusable grocery shopping bags, plant pot covers and I make laundry bags, oven gloves, non-paper towels; corporate gifts); workshops</p>	<p>open to collaboration &amp; creativity &amp; sewing machines &amp; teaching/team-work/market-ing skills</p>	<p>financial support; management/business running (e.g. book-keeping) skills</p>	<p>Makerspace Hull; Life and Loom (workshops?) &amp; funding organizations &amp; theatre companies</p>		
				R 0	<p>linen is eco-friendly; use bags made out of sugar canes</p>	<p>increase sales by contacting more shops</p>									
				R 1	<p>use recycling paper</p>	<p>potential to use reclaimed wood for tags</p>									
	20) Dove House (Hospice) + charity + Dove House Trading Limited	310 F/PT & ca. 1200 V		R 2	R 3	<p>re-use second hand items (e.g. clothes, electricals); rainwater harvesting to flush toilets in hospice</p>	<p>open large department store with different charities</p>	<p>income goes to hospice</p>	<p>awareness raising campaigns</p>	<p>half of the income comes from charity shops; contract with HCC and FFC Environ.; lottery; public grants; charity fairs</p>	<p>strong local brand; relatable mission; own 9 shops; free furniture collections; house clearance service &amp; 7 vans</p>	<p>specialist expertise to do repairs of electricals and clothes; ensure more efficient waste diverting in waste recycling center</p>	<p>repair shops; Knit and Natter (for recycling/upcycling workshops); other charity retail shops to sell second-hand items</p>		
						R 3	<p>minor/basic repairs of electricals and vintage clothes</p>	<p>upcycling activities in local craft shops</p>	<p>furniture upcycling projects for prisoners</p>					<p>more marketing</p>	
						R 5	R 6	<p>food meals out of food surplus</p>	<p>funeral service (using reclaimed wood)</p>						
						R 1	<p>local food growing; some premises are rented and lended to other organizations</p>	<p>electric vans</p>							



Textiles and textile crafts											
<p>21) Sue Ryder (charity)</p> 	<p>2019</p> <p>8 FT &amp; 12 V</p> <p>♀</p>	<p>R 2</p> <p>R 3</p>	<p>resell second-hand clothes, furniture, bric-a-bric</p> <p>↑</p>	<p>repairs</p>	<p>income goes to 4 hospices and 7 neurological units across the UK</p> <p>↑</p>	<p>raise environmental awareness among volunteers</p>	<p>sales; grants and donations (indirectly via central Sue Ryder)</p>	<p>strategic location (next to big shopping mall); large storage space</p>	<p>financial support (to employ more people); improved marketing</p>	<p>Community Re-Paint; Recycling Unlimited</p>	
	<p>22) ScrapStore Hull (charity)</p> 	<p>1988</p> <p>2 FT</p> <p>♀</p>	<p>R 2</p>	<p>resell second-hand textiles; paint; surplus paper</p> <p>↑</p>	<p>increase sales by reaching more people</p>	<p>upcycling workshops for children and young people (including autistic people) in a local (deprived) area</p> <p>↑</p>	<p>more workshops</p>	<p>sales; grants (Arts Department) &amp; membership &amp; rentals</p>	<p>creativity &amp; sewing machines and premises for rental &amp; open to collaboration</p>	<p>financial support (to hire more staff and refurbish old premises)</p>	<p>freelance artists</p>
		<p>R 1</p>	<p>rent (vacant) premises (former church); use urban assets (parks); offer rentals (workshop space and sewing machines; e.g. to artists)</p> <p>↑</p>	<p>address loneliness; offer socializing events (crafts clubs with tea and biscuits)</p> <p>↑</p>							
<p>23) Travieso (S.p.A)</p> 	<p>2018</p> <p>♀</p>	<p>R 4</p> <p>R 6</p>	<p>upcycling &amp; recycling workshops</p> <p>↑</p>	<p>support for troubled youth via community payback schemes with Giroscope</p>	<p>support children from poor families with donations of clothes</p>	<p>sales; service (B2B with private companies)</p>	<p>Tedoy</p>				
		<p>R 2</p>	<p>resell second-hand clothes (under 6 year old); exchange service of clothes</p> <p>↑</p>	<p>recycle poor quality clothes into hairbands, stuff for animals, toys for kids</p>							



 24) Ecocitex (S.p.A)	2020						R 6	recycle clothes (into yarn)	increase sales across the country; sell abroad	employ female ex-offenders	educational workshops	sales (yarn/upcycled textile items); service (B2B); membership fees	fill the need for services for ex-offenders	financial support	more factories who could use yarn/thread from recycled clothes; upcyclers (e.g. who upcycle jeans); social workers and psychologists; SEs working with textiles (Tedoy; Miss Moom Reutilizables)
							R 2	deconstruct clothes to reuse any sub-products (eg. buttons); second-hand machines	corporate gifts	donations of garments (e.g. wool caps) to homeless people					
										counselling service					
 25) Uniformes Reciclados	2015						R 2	resell second-hand clothes	open another shop in hospital (ideally open one shop in every city in Chile)			sales; external funding	first enterprise to recycle medical uniforms	financial support (to invest in more employees, infrastructure and vehicles); knowledge of suppliers and distributors	local donors
								R 5	repurpose donated or imported clothes	attract other worker groups (e.g. Cooks, teachers)					
 26) Tedoy (foundation)	2011						R 2	resell second-hand clothes and other items	offer repairs and open access to repair machines among local communities	create a co-working space for other entrepreneurs	raise awareness; offer workshops	sales; (corporate) events; donations; funding (CORFO)	good reputation & connect diverse individuals	financial support (to run mobile app); time; ability to form long-lasting collaborative agreements; management (to manage volunteers)	Travieso; Miss Moon Reutilizables; Triciclos (Tedoy can offer them a service); private companies
							R 3		open a clothes shop						
									reach more people via mobile app						
 27) Soap from the Heart	2011						R 0	non-toxic ingredients	more products	educational workshops (also for disabled children)		sales	vast knowledge on how to make cosmetics & local maker	improved marketing	local makers
							R 1	zero-waste shampoo bars, soaps							
								R 2	reuse coffee grounds for soaps						
 28) Miss Moon Reutilizables (S.p.A)	2016						R 1	offer reusable pads; scrap materials are donated for reuse	own a building and sewing machines		edu workshops for women (sowing)	sales	working team of friends	improved marketing (not enough time); financial support	Travieso; Tedoy; foundations for vulnerable women
									corporate gifts						

Hygiene	29) Biorigen	2018	2	R0	non-toxic ingredients	own a laboratory	workshops (e.g. for communities affected by hygiene poverty)	sales	collaborative	improved marketing; financial resources (to employ more people); networking	alternative shops
				R1	offer toothpaste in reusable glass jars	corporate gifts					
					expand range of products (mouth-wash using glass bottles) expand overseas (across LA)						
Hygiene	30) Emporio Natural	2008	5	R0	non-toxic ingredients	innovate products (formulas)	occasional donations of soap to communities affected by hygiene poverty	more educational workshops (also overseas to tackle hygiene poverty)	vast knowledge on how to make cosmetics & local maker	financial resources (e.g. To sterilize jars)	TECHO Chile; Super Justo
				R1	zero-waste shampoo bars, soaps; offer reusable bags	stop using plastic packaging	edu workshops on how to make cosmetics/detergents (also for disabled children); workshops & space to empower other entrepreneurs				
				R2	reuse coffee grounds for soaps	offer products overseas					
Detergents	31) Freemet (S.p.A.)	2014	6 (FT) + 2 (PT)	R0	non-toxic ingredients	diversify range of products	product home delivery	sales in shops across Chile (approx. 200) & large retail & e-commerce (ca. 3500 clients)	vast knowledge on detergents & good teamwork	financial resources (to employ more people)	alternative shops; schools
				R1	offer returnable and reusable packaging; rented premises	upscale abroad	educational DIY workshops for disadvantaged communities				
				R1		develop universal nozzle for glass bottles (Cristalería Chile)	donations of products				
Library of Stuff (CIC)	32) Library of Stuff (CIC)	2020	3	R1	accept donations of usable items for reuse; rent second-hand items; rented premises	move to new premises	(online) trainings and workshops on how to use items			financial resources (to employ more people)	Makerspace Hull
				R2	repairs	offer cloth rentals in the future					

Electronics	33) Makerspace Hull	2018	4	R 1	local production of items; many production inputs are locally sourced (including 3D printers)	design service (e.g. Furniture)	educational workshops (e.g. Family days)	expand networks	membership fees; grants; corporate sponsorship	3D printers; laser cutter; sewing machines; woodworking tools	financial resources; volunteers; improved marketing	Droppoint; TimeBank (library of things); Hull Library of Stuff; ROPO design
				R 2	accept donations of usable items for reuse; plastic bottle bank; rented premises	larger premises	address skill shortages problems	more workshops for disadvantaged people (including prisoners and mentally struggling)				
				R 6	recycle plastic filaments to 3D printers	scrap bins' for donations	build confidence among underprivileged youth					
					expand across the city by relying on existing library infrastructure							
Arts & Crafts	34) Happy Bird (S.p.A.)	2018	2 (1-1/3)	R 6	recycle plastic bags	sell bags overseas	employ prisoners to make bags in prisons	funding (IMPLUSA from local authority); sales on markets; e-commerce; shops across the country	(second-hand) machine for thermal fusion	financial resources; time	prisons; schools	
				R 1	rented premises							awareness raising workshops
	35) Plastic LUP	2017	3 PT	R 3	repair service of offered bags	sell products overseas	empower artisanal communities by providing them material inputs (recycled plastic fibers) & workshops	involve more artisanal communities	sales (incl. corporate gifts); funding; corporate sponsorship	plastic extrusion machine	financial resources; employ more people (no more than 2)	private companies
				R 6	recycle plastic bottle cups into reusable plastic fibers							
	36) heidenspass (association)	2012	R 1	R 5	upcycle and refurbish furniture and textiles; collages using old newspapers	diversify products	work schemes for vulnerable young people	sales; B2B; public funding	community spirit; creativity; pedagogical experience	financial resources	private companies	
R 6				rented premises								
37) Community Re-paint Hull & Humber (charity)	2012	R 2	resell reclaimed paint	rented premises			sales	joint venture with Groundwork Hull	financial resources to address deficits of personnel and premises	local authorities		

Mixed/Other												
38) Droppoint (CIC)	2019	3	R 2	offer platform to circulate second-hand items	facilitate courier services abroad	internships for disadvantaged adults	grants	dynamic team	financial resources; find more donors	private companies (couriers); charities; donors		
					facilitate courier services of bulky items							
					facilitate communication between charities and donors offer phone app							
39) Enviromail (Private company limited by guarantee)	2008	9 (core management) & ca. 100 V p.a.		recycling waste (paper, cardboard, plastic)	social franchise	employment, (referral) support & training to vulnerable individuals (homeless, single parents, mentally struggling); space for socializing	help more people with disabilities	sales of collected materials to recycling industries	accreditation (disability confident leaders); 30-35 tons of recyclables per week; IT center	financial resources	private companies	
40) Tricicios (private company)	2009	250	R 2	recycling service (including consultancy services) and recycling stations (x 12)	diversification of material flows	educational projects	consultancy services; sales of collected materials to recycling industries; funding (CORFO)	strong brand/reputation (trust); trucks; committed working team; skills and knowledge; tailoring skills (consultancy, education, offer access to data)	skills to measure social impact; integration of technology	private companies		
				rented premises	improvement of services (technological advancements)	integration of informal workers to the formalized recycling ecosystem						
					diversification of services (recycling index software)	policy lobbying/ advice						
41) Unity in Community (charity)	1997	11 FT & 4 PT (6 V)	R 5	repurpose vacant urban land and building for housing, premises, activities and entrepreneurs	build new properties in the area	upskilling of/employment training for vulnerable/ young people in deprived areas	diversify employment training opportunities	leasing; funding (e.g. CLLD)	own a number of assets (buildings) & van	financial resources	university (e.g. reports on home energy efficiency)	
				redistribute food surplus	open a community hub	support local community development	attract more people (community hub)					
						support charities building homes for homeless and asylum seekers						
						free electric vouchers for residents						

Construction/Housing			Year	Country	Organization	Employees	Activities	Impact	Resources	Other		
42	United Kingdom	Goodwin Development Trust (charity)			ca. 150 employed & ca. 150 V	R 2 R 5	redistribute food surplus lease spaces	build and refurbish more properties upskilling of/employment training for vulnerable/unemployed people	reuse projects; recycle food waste (energy)	services for HCC; grants to deliver community initiatives; trading activities (2 nurseries; adult care business); renting commercial properties (predominantly to third sector)	own 50 properties; community embeddedness (residents form board of trustees) financial resources	Recycling Unlimited; R-evolution; BAMEEN CIC
43	United Kingdom	Giroscope			ca. 16 (FT&PT)	R 2 R 3 R 5	refurbish vacant buildings and furniture ('The Furniture Project') bike repair workshop	offer food surplus neighbourhood laundrette	upskilling of/employment training for vulnerable/unemployed people	cooking classes for residents	leasing; funding good reputation (refurbished around 125 properties for 300 residents in Hull)	financial resources; human resources (skilled employees) & time EMS, Ltd. (cardboard boxes for insulation)
44	United Kingdom	Probe (charity/Ltd)			ca. 16	R 2 R 5	refurbish vacant buildings buy second-hand furniture; reuse electronics	open a second-hand shop educational/awareness raising schemes for young people	upskilling of/employment training for vulnerable/unemployed people	addressing domestic violence	leasing; funding own 11 properties vast experience	Life and Loom; Recycling Unlimited; HWR
45	United Kingdom	Winner (charity/Ltd)	2007		43	R 2 R 5	rented premises; charity shop with second-hand items; use reclaimed wood and textiles for small projects (e.g. gardening, craft group) refurbish vacant buildings	housing and legal support for women escaping abuse; empowering women (work training; volunteering opportunities)		leasing; funding; consultancy services for other women sector organizations across the country	ca. 220 properties for vulnerable women; strong reputation; quite large financial autonomy financial resources; leadership	private companies
45	Chile	TECHO Chile (foundation)	1997			R 1 R 2 R 5	use of reclaimed materials for insulating temporary housing (Tetrapak) redistribute food surplus to vulnerable families, community kitchens and charitable organizations food growing projects in campamentos	increase the number of insulated houses across the country providing housing to those living in extreme poverty or escaping abuse training residents of 'campamentos' to be base recyclers (PAST)		corporate sponsorship; funding; leasing (public support)	collaborative & vast experience financial resources	Recylink; private companies (corporate sponsorship & volunteers)



## Appendix 4 – An Overview of Research Findings from the Community Assets Mapping Sessions with Beneficiaries of the Hull Community Shop in East Hull (September 2020)

Note: Highlighted in blue are assets with (actual/potential) circular value.

	What/Who are they?	What do they have/offer (of value)?	Challenges/missing & desirable assets
<b>Myself: my skills, gifts, capacities, knowledge</b>	<ul style="list-style-type: none"> <li>floral design skills</li> <li>cooking skills</li> <li>capacity to donate clothes and food</li> <li>crafts, earrings</li> <li>social skills (gained via volunteering in a local charity shop)</li> <li>gardening skills</li> </ul>	<ul style="list-style-type: none"> <li>pleasure</li> </ul>	<ul style="list-style-type: none"> <li>some are interested in gaining woodworking skills (SEs involved in wood upcycling are not located in East Hull)</li> </ul>
<b>People and relations (e.g. neighbours)</b>	<ul style="list-style-type: none"> <li>trust in EMS</li> <li>generally positive relations in neighbourhoods</li> <li>people help each other in the neighbourhood</li> <li>community spirit, especially during lockdown</li> </ul>	<ul style="list-style-type: none"> <li>positivity</li> </ul>	<ul style="list-style-type: none"> <li>more races to get family and friends involved</li> <li>territorial behaviour</li> <li>crime: "Kids here are just looking for crime. For them school is boring" (local resident)</li> </ul>
<b>Community and Cultural groups/clubs/associations</b>	<ul style="list-style-type: none"> <li>support for single mothers in the Freedom Center</li> <li>gym, bowling and bingo games in the Freedom Center (x4)</li> <li>meetings for elderly people in the Freedom Center</li> <li>Child Dynamix</li> </ul>	<ul style="list-style-type: none"> <li>entertainment &amp; socialization</li> <li>boost community spirit</li> </ul>	<ul style="list-style-type: none"> <li>more community service</li> <li>more DIY workshops</li> <li>more youth clubs</li> <li>more activities for children</li> <li>more family activities</li> <li>more activities for the disabled</li> <li>more activities for elderly (Potential to involve Age UK Hull, and ideally CE-related crafts activities)</li> <li>interested in repair cafes if they are for free</li> </ul>
<b>Spaces &amp; Facilities (e.g. community)</b>	<ul style="list-style-type: none"> <li>repair service on Holderness Road</li> <li>laundry service (product-as-a-</li> </ul>	<ul style="list-style-type: none"> <li>cost savings</li> </ul>	<ul style="list-style-type: none"> <li>vacant land, e.g. at Ryehill Grove: "It's getting rotten, there is a lot of rubbish, they could organize urban</li> </ul>



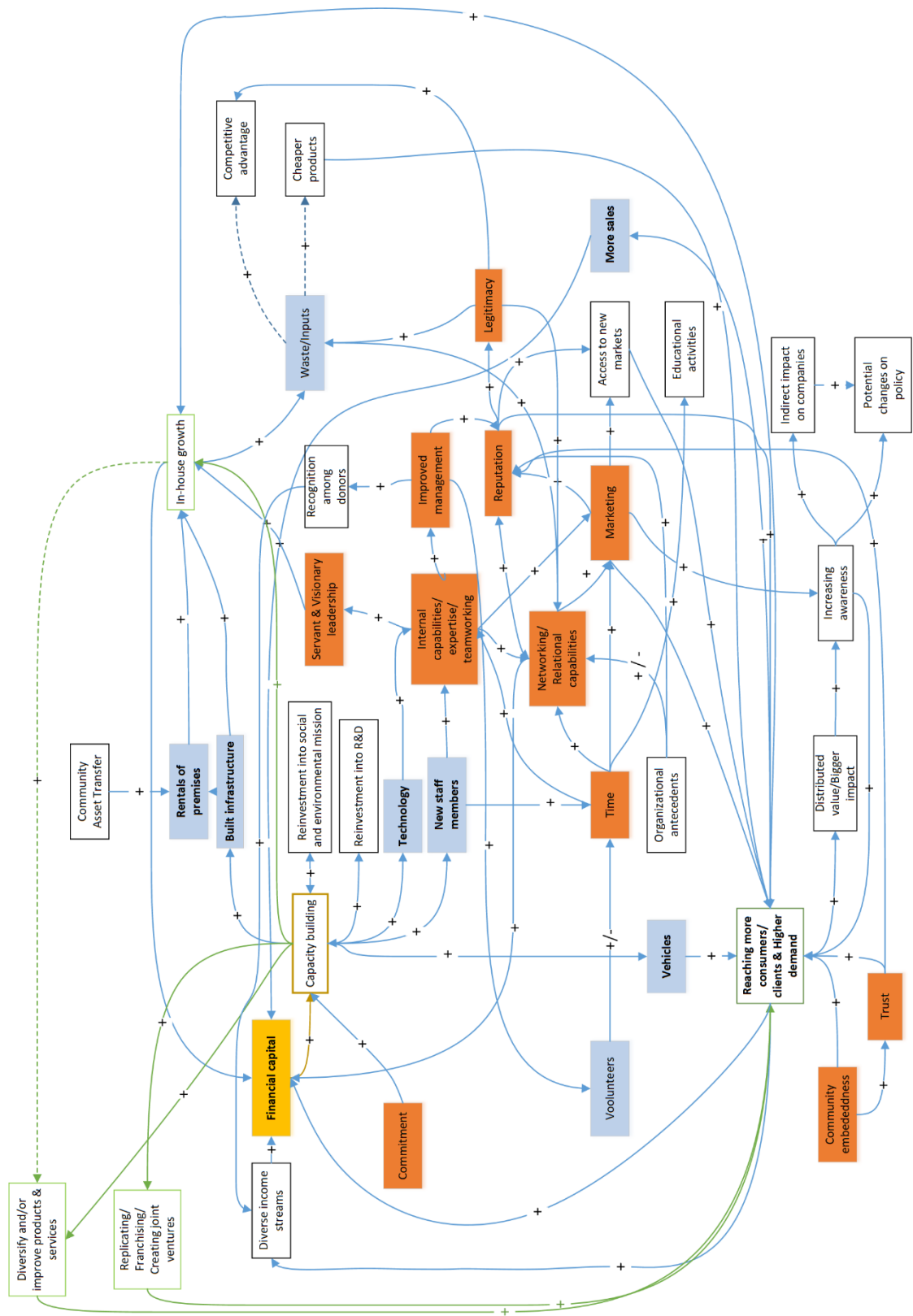
kitchens)	service)	<p><i>allotments in that vacant land” (resident from HU9 3QG); (Note: vacant land behind EMS was sold by Freedom Center)</i></p> <ul style="list-style-type: none"> <li>• playgrounds should be safer (fencing): <i>“There are big green areas – 4 years down the line they are still thinking what to do with it. There is more football area than the road (Great Grove). There might be rubbish. There is no fence and children play football and it’s not safe. It belongs to Hull City Council. There is Child Dynamix – they put fence around one such grassy vacant land but it’s now closed due to COVID. I don’t think this land could become a <b>community allotment</b> as it’s nearby the street and there are too many people walking and dumping and cars.”</i> (resident from HU9 3QG)</li> <li>• interested in <b>cooking classes</b> (x3)</li> <li>• <b>bins should be emptied more often</b> than every 2 weeks – they suggested 1 week;</li> <li>• <b>foxes</b> in the area cause problems as they mark territory with unpleasant scent in search of food from bins</li> <li>• need for more surveillance - complaints about young people leaving rubbish: <i>“There is police in the corner but they don’t show up very often and reprimand young</i></li> </ul>
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

			<p>people. They leave rubbish on the streets and when I stopped them to ask for address they always give false address" (local resident)</p> <ul style="list-style-type: none"> <li>• some interested in clothing swaps</li> <li>• some interested in getting meals in reusable glass jars</li> </ul>
<b>Institutions (e.g. schools, libraries, medical facilities)</b>	<ul style="list-style-type: none"> <li>• library in the Freedom Center <i>(Potential for Makerspace Hull to run another maker-space)</i></li> </ul>		<ul style="list-style-type: none"> <li>• improved housing infrastructure (disabled-friendly): "I would improve the council so they do more things for us and improve housing infrastructure" (local resident)</li> </ul>
<b>Natural/physical environment (e.g. urban gardens)</b>	<ul style="list-style-type: none"> <li>• East Park</li> </ul>		<ul style="list-style-type: none"> <li>• more gardens</li> <li>• more urban allotments (one local resident noted that it could be at least with herbs only)</li> <li>• There is a lot of waste in the neighbourhood</li> <li>• More parks and trees</li> </ul>
<b>Local economy (charity shops, businesses)</b>	<ul style="list-style-type: none"> <li>• Preston Road Women's Center</li> <li>• café shop</li> <li>• charity shops on Holderness Road (many frequent visitors)</li> <li>• EMS offers leaflets to Probe, which helps people find employment</li> </ul>		<ul style="list-style-type: none"> <li>• one charity shop nearby EMS, Ltd. was closed</li> <li>• charity shops are more expensive than before (e.g. those on Holderness Road)</li> <li>• Interest in being able to purchase food from urban allotments</li> <li>• more repair services would be good to save money</li> <li>• interested in jumble sales</li> <li>• they want to see more employment opportunities (e.g. joineries)</li> </ul>
<b>Transport</b>			<ul style="list-style-type: none"> <li>• bike scheme would be nice (but there are high levels of</li> </ul>

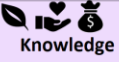



			<p>crime &amp; such scheme may be potentially expensive for local residents)</p> <ul style="list-style-type: none"><li>• more cycling paths (many people cycle on pavements</li><li>• need for more buses (especially among older people and those who do not own a car)</li></ul>
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## Appendix 5 – Interdependencies of Factors Impacting Scalability of SEs



## Appendix 6 – An Overview of Scaling Strategies

Scaling pathways: towards socially inclusive circular impacts				Key capacity building requirements/necessary skills and resources	Potential challenges (value lost)	Examples (already adopting)
Scaling strategy	Economic unit	Productive capital	Scaling mechanism/practice			
Improvement and/or diversification of existing provision (product/ service)	PROCUREMENT	 Productive capital  Production inputs	Local source	Knowledge on resource providers; liaison skills; commissioning skills	Lack of local resource providers	Treecycle
			Biodegradability		Poor recycling infrastructure	Freemet; Soap from the heart
			Reduction of inputs		Limited options	Biorigen; Prana Sopas (reusable packaging)
			Secondary/surplus products (e.g. from collection points or SEs: see EoL)		Perception (e.g. on food surplus); quality; public liability insurance/unlabelled food cannot be donated (food); charity shops cannot sell second-hand toys/prams due to strict regulations (UK)	ROPO design (fabric scraps from factories); FareShare Hull & Humber and Hull Foodbank (collection points in large supermarkets); Ecocitex (collection points)
			Wonky vegetables (*food sector only)		Finding (local) resource providers; incentivizing food	/
			Non-toxicity; organic (food)		Expensive (organic food)	Freemet; Soap from the heart; Down to Earth (organic food)
			Reusability (e.g. packaging)		Extra time to replace old labels with new ones; washing expenses	Soap from the heart and Prana Sopas (reusable glass jars)
			Durability		Expensive	Miss Moon (durable textiles)
			Certification		Knowledge on certifications and eco-labels	Extra costs (also for customers)
		 Tools	Low-tech/second-hand and/or rented tools	Knowledge on resource providers	Lack of local resource providers	heidenspass (donated ovens); Hull Library of Stuff (offer rented equipment)
		 Production inputs	Source: community/(local) artisans	Networking and management skills	Limited options	Plastic LUP
		 Ex-offenders & prisoners Youth from probation Disabled				Humber Wood Recycling with Groscope Emporio Natural

SPACES OF (RE & CO) PRODUCTION (KNOWLEDGE, PRODUCTS & SERVICES)	Employee diversification	Mentally struggling	Networking and management skills; Accountability; Ability to find new competences; Absorptive skills (knowledge); bid writing skills*	Increased costs (often supervision required, especially when it comes to woodwork)	Recycling Unlimited
		Students (temporary placements)			Recycling Unlimited; MakerSpace Hull
		Low-income groups			Emmaus Hull & Humber; EMS
		(Freelance) artists/craftsmen			Plastic LUP; Traenerhus; Scrapstore Hull
		Women			Ecocitex; Traenerhus
		(Corporate) volunteers			FareShare Hull & Humber; Goodwin Trust
		Ethnic minorities, migrants & refugees			As above & difficulties in finding committed
		language barrier			heidenspass
	 Knowledge	External advisors; circular brokers; specialized staff	Time consuming	/	
	 Money	External (corporate) grants; microcredits; trading (see spaces of exchange)	Reduced autonomy in case of reliance on external funding	/	
	 Space	Usage (rental)/refurbishment /redevelopment of vacant infrastructure (e.g. through asset transfer)	Llason skills	Lack of asset transfer scheme; Extra costs	ScrapStore Hull
		Share space with other organizations (e.g. offer storage)	Networking/relational skills and accountability	Conflicts of interest	Enviromail (offering storage to FareShare Hull & Humber); Matthew's Hub (and MIND)
		Furniture from upcycled materials (e.g. wood)	Procurement skills	Wood quality	/
		Instal solar panels	Knowledge on resource providers	Increased costs (initial investment)	Rooted in Hull (solar panels)
		Ensure efficient water infrastructure		Increased costs (initial investment)	Rooted in Hull (rainwater harvesting)
Compostable toilet		Regulations		Rooted in Hull	
 Employees		Training (laboral insertion)	Training skills	Increased costs (management, teaching)	Enviromail (incl. IT training); Humber Wood Recycling; FareShare Hull & Humber (food safety, manual handling)
	Socialization	Communication and management skills	Increased costs (time)	Enviromail; HWR; heidenspass; MakerSpace Hull	


			Design for durability (high quality)	Circular design skills	Increased costs (for customers)	Miss Moon Reutilizables, heidenspass	
		<b>Design</b>	Design for reperaturability				/
					Design for returns/refills	Public awareness	Freemet
Improved delivery of existing provision; increased market penetration/outreach and diversification of audience	SPACES OF EXCHANGE (SALES/ (RE)DISTRIBUTION, MARKETING & KNOWLEDGE SHARING - LEARNING)		Share space with other organizations (see 'Joint Ventures')	Networking/relational skills and accountability	Conflicts of interest	Cat in the Sack; Soap from the Heart	
		<b>Space</b>	Furniture from upcycled materials (e.g. wood)	Procurement skills	Wood quality	Emmaus Hull & Humber; Soap from the Heart	
			Installing modular containers	Knowledge on resource providers	Public awareness	Rooted in Hull	
			Instal solar panels		Increased costs (initial investment)	Rooted in Hull	
			Ensure efficient water infrastructure		Increased costs (initial investment)	Rooted in Hull	
			Compostable toilet		Regulations	Rooted in Hull	
				<b>Audience/ Space</b>	Usage (rental/free)/refurbishment/redevelopment of vacant infrastructure to better distribute products/services (see 'Replicability')	Llason skills	Lack of asset transfer scheme; Extra costs
		Co-location of spaces of exchange with spaces of production and/or consumption	Limited options		heidenspass		
		Offer a meeting space (for private companies/ individuals)	Low demand		Rooted in Hull		
		Mobile shop/trailers/community fridges/(charity) fairs (strategic locations)	Market research		Regulations	Recycling Unlimited (mobile trailer); EMS Ltd. (community fridge); Tedoy Ropa Movil	
		Auctions	Outreach skills		/	Dove House	
		Incentives to return/reuse packaging/zero-waste	Marketing and outreach skills		Low consumer awareness	Prana Sopas; Soap from the Heart; Super Justo	
		Online sales or rental/exchange platforms (incl. library of things)			Carbon footprint (international sales)	ROPO Design (Etsy); Library of Stuff (digital platform for sharing)	
		Social media (incl. videos, podcast)	Marketing and outreach skills; creativity		Time consuming; Cyber attacks	All; Rooted in Hull (podcast)	

		Radio/ local news	Outreach skills	/	Hull Library of Stuff
		Mobile app	Technological skills (software development and maintenance); recruitment skills	Maintenance costs	OLIO
		Certification and eco-labels; tags	Knowledge on certifications and eco-labelling	Expensive products	Freemet; Soap from the heart; Emporio Natural; Biorigen; Traenerhus; Enviromail
		Campaigns	Co-ordination, outreach and management skills	Time consuming	Hull FoodBank ('Clean Plate' campaign)
		Trade fairs and corporate events			Humber Wood Recycling (trade fairs for local businesses); Don Pallets; Life and Loom
		(Corporate) Membership		May deter some consumers	ScrapStore Hull; Life and Loom; Library of Stuff
		Vouchers			Giroscope; Hull Foodbank
		Tailoring to individual requests/ design service	Communication skills	Extra costs for consumers	heidenspass
		Home deliveries (e.g. using cargo bikes); may be mediated through external distributors	Co-ordination and management skills; knowledge of providers	Poor cycling infrastructure; can be costly (i.e. service)	Rooted in Hull (cargo bikes)
		Alternative currencies	Outreach skills	Low financial returns	Hull Coin supported by TimeBank Hull & East Riding
		Referrals	Networking	Time consuming	EMS, Ltd.
		Contracts with local authorities (public procurement, commissioning)	Bid writing skills; relational/liaison/negotiation skills; contracting skills (possibility to join and form consortia to tender for public sector contracts)	Costly (to show social impacts)	
		Contracts/Agreements with other SEs/their spaces of exchange	Networking and negotiation and/or contracting skills	High commissioning fees for some SEs	Cat in the Sack (space for others' products); Rincón del Pallets (relies on community shops to sell products); Life and Loom (Biscuit Market in St. Matthews Church run by Giroscope)

			Agreements with other SEs/health sector on social prescribing		Clinical approach (too much monitoring)	Down to Earth		
			Agreements with private sector (B2B; corporate gifts)		Greenwashing	heidenspass		
			Social enterprises & NGOs - shared activities & direct access to (vulnerable) groups:		Networking & liaison skills	Health and safety protocols	Competition (if not complementary)	heidenspass
			* Ex-offenders & prisoners				Ecocitex	
			* Disabled				Don Pallets	
			* Mentally struggling				Down to Earth	
			* Ethnic minorities, migrants & refugees				BAMEEN CIC	
			* Women				Purple House	
			* Low-income groups/neighbourhoods/communities				Rooted in Hull (organic food for poor communities)	
			* Children and infants				ScrapStore Hull; heidenspass (toys); Recycling Unlimited (toys); Don Pallets	
			* Homeless				Emmaus Hull & Humber	
			* Elderly				Age Hull UK	
			* Terminally ill		Dove House			
			Agreements with mainstream supermarkets		Commissioning fees	Freemet		
			Agreements with art sector/museums			ScrapStore Hull		
Agreements with hotels/tourism sector	Rincón del Pallet							
Awareness-raising workshops (online/offline); may include DIY kits	Training and teaching skills	Limited liability; Extra costs (insurance)	Life and Loom; Súper Justo					
Consultancy services	Expertise knowledge	Consultancy fees may be low	Hull Food Partnership					
Equipment for rental (possibly combined with online workshops)	Management skills	Extra costs (need for storage)	Life and Loom; Don Pallets					
Knowledge diffusion (Open Source)	Ability to invest without financial recompense	Cyber attacks; Improper referencing	/					
Policy lobbying	Lobbying and communication skills	Difficult to challenge silo mentality	heidenspass					
Usage (rental)/refurbishment /redevelopment of vacant infrastructure	Liason skills (e.g. with local authorities owning assets for rental)	Lack of asset transfer scheme; Extra costs	heidenspass					



Improvement (impact maximization) and/or diversification of existing provision	SPACES OF CONSUMPTION	Space	Share space with other organizations	Networking/relational skills and accountability	Conflicts of interest	Rooted in Hull
			Instal solar panels	Knowledge on resource providers	Increased costs (initial investment)	Rooted in Hull
			Dining furniture from upcycled/donated materials (e.g. wood)		Wood quality	Rooted in Hull (?)
			Ensure efficient water infrastructure		Increased costs (initial investment)	Rooted in Hull
			Compostable toilet		Regulations	Rooted in Hull
	MAINTEN-ANCE, REUSE, RESELLING & REPAIR (see spaces of re- & co-production)	Audience/ Consumed outputs	Repair service		Not always profitable	heidenpass
			Returnable & refillable packaging (e.g. refillable station; may include financial incentive)	Knowledge on safety regulations (food, cosmetics)	Extra logistics and costs (re-labelling of jars; washing packaging); Reliant on customer's willingness to return item	Rooted in Hull (refillable station); Prana Sopas (returnable jars); Freemet (returnable detergent packaging)
			Educating on how/where dispose packaging		Reliant on customer's willingness to learn	Freemet
			Returnable product	Knowledge on safety regulations	Reliant on customer's willingness to return item	Freemet
			Technical support and guarantee to customer		Extra costs	Plastic LUP
			EOL: REVERSE LOGISTICS (see spaces of re- & co-production)	Consumer outputs	Agreements with recycling/composting/reprocessing enterprises to handle returned waste	Knowledge on service providers
	Spatial scaling: other ways to maximize impacts across spaces of production, exchange and consumption	Social franchise (replicability)			Extra costs	Sue Ryder
Joint venture		Capitalize on infrastructure assets around the city (e.g. parks, churches, cafes, libraries, community spaces)	Investment in market research; management; financial capital; visionary leadership	Conflicts of interest	Humber Wood Recycling with Dove House Hospice; Community Repair Hull with Groundwrk Hull	
Hub-and-spoke/ 'satellites' across the city				Conflicts of interest; Extra costs	EMS, Ltd. (new shop in West Hull)	
Spin-out				Extra costs	Age Hull UK; Dove House	

<b>Physical in-house growth (volume)</b>	<b>Increase volume of offered products/services (= increase inputs; customer base &amp; sales; see spaces of exchange)</b>	See 'procurement' on how to sustainably increase volume	Growth management skills; marketing skills to increase customer base to generate more income (see spaces of exchange); fundraising/grant seeking (financial capital); knowledge on safety standards	Regarding upcycling: difficulty finding materials of same colour/texture; Extra costs	/
	 <b>Increase in size (infrastructure/labour)</b>	Capitalize on existing infrastructure assets around the city	Growth management skills; marketing skills to increase customer base to generate more income (see spaces of exchange); fundraising/grant seeking (financial capital); share infrastructure with others	Extra costs	/

Appendix 7 – Miro Boards featuring Virtual Workshop Session with *Rooted in Hull*:  
'Social Circular Innovations: Creating and Scaling Social and Circular Value Outcomes'

## Social Circular Innovations: Creating and Scaling Social and Circular Value Outcomes



### Objectives:



- To increase the knowledge of the CE principles among entrepreneurs
- To enable entrepreneurs to rethink their business models and capture more value
- To encourage entrepreneurs to explore different strategies to create and upscale value outcomes in such a fashion that the development of a socially inclusive and community-oriented circular economy is stimulated

**Step 1:** Stakeholder mapping: life cycle perspective

**Step 2:** Value Mapping: value captured, lost and opportunity + desired added value & why?

**Step 3:** Exploring and identifying value scaling strategies to achieve desired value outcomes (incl. identification of relevant stakeholder reconfigurations)

**Step 4:** Viability and priority mapping of potential scaling strategies

**Step 5:** (Policy) recommendations

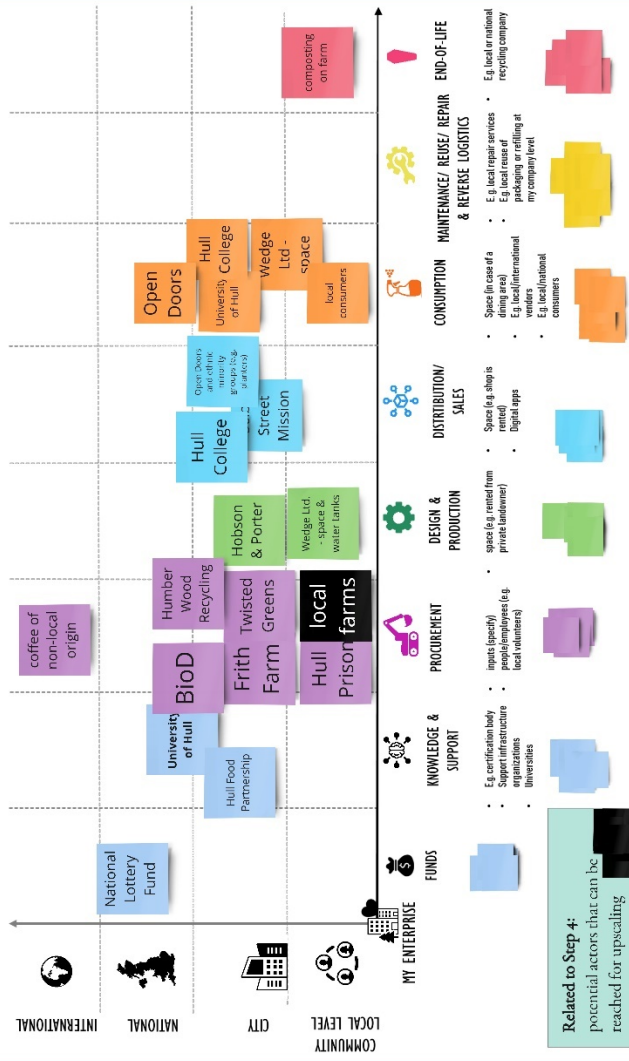


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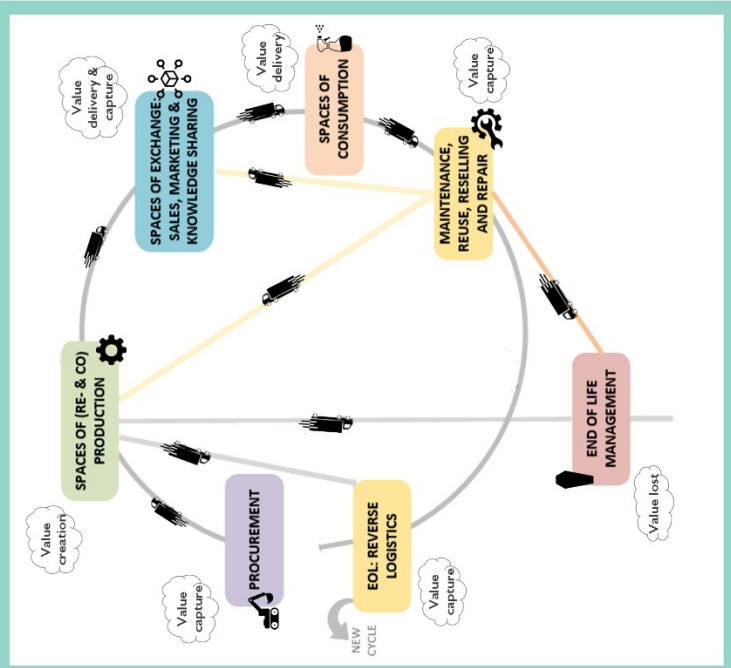


# I. Stakeholder mapping: life cycle perspective

TASK: Identify stakeholders linked to your company (specify inputs/(in) tangible assets procured from each actor)



Related to Step 4: potential actors that can be reached for upscaling



## 2. Value Mapping: value captured, lost and opportunity + value desired

TASK: Identify the following value types:

VALUE CAPTURED:



VALUE LOST/DESTROYED:



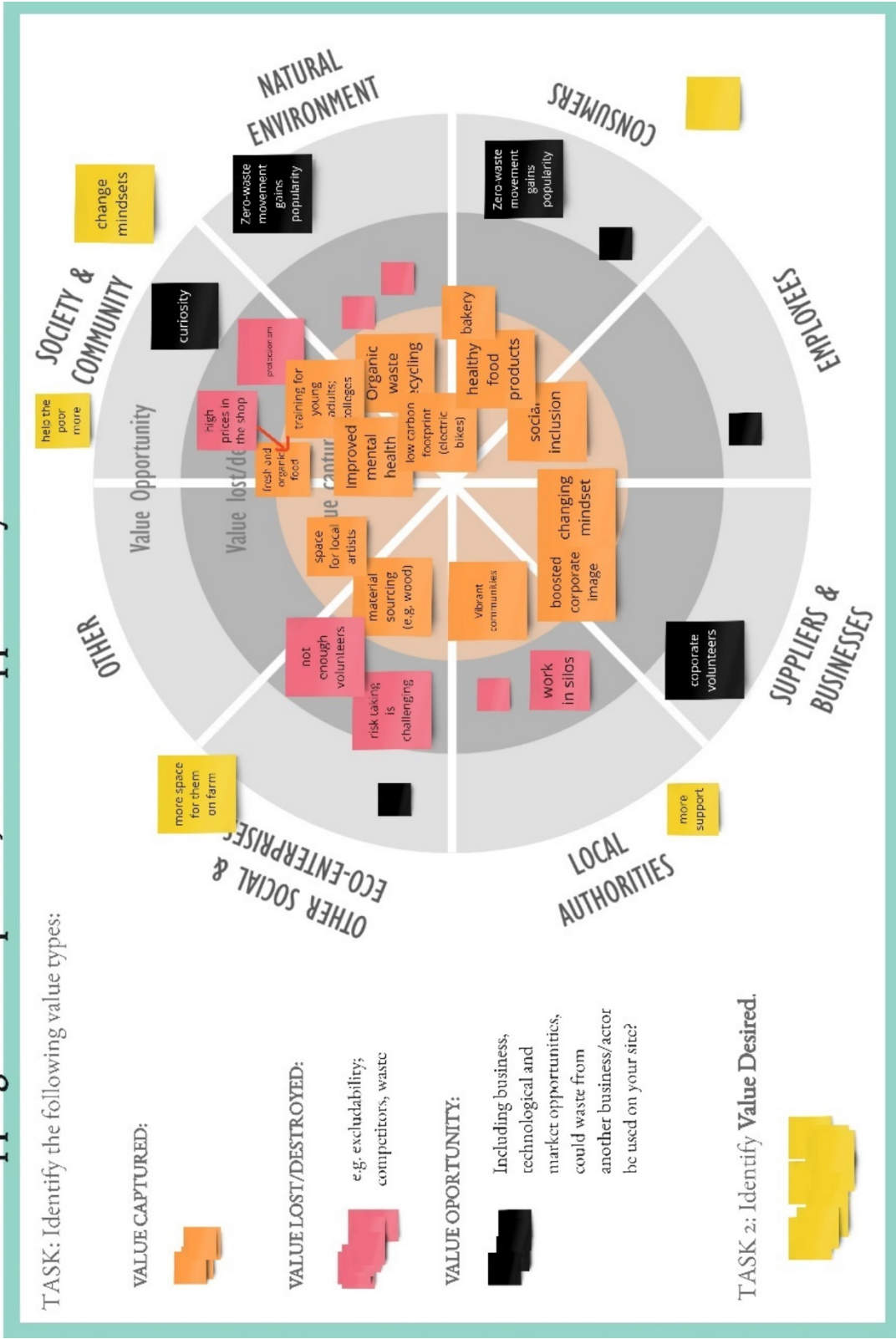
e.g. excludability; competitors, waste

VALUE OPPORTUNITY:



Including business, technological and market opportunities, could waste from another business/actor be used on your site?

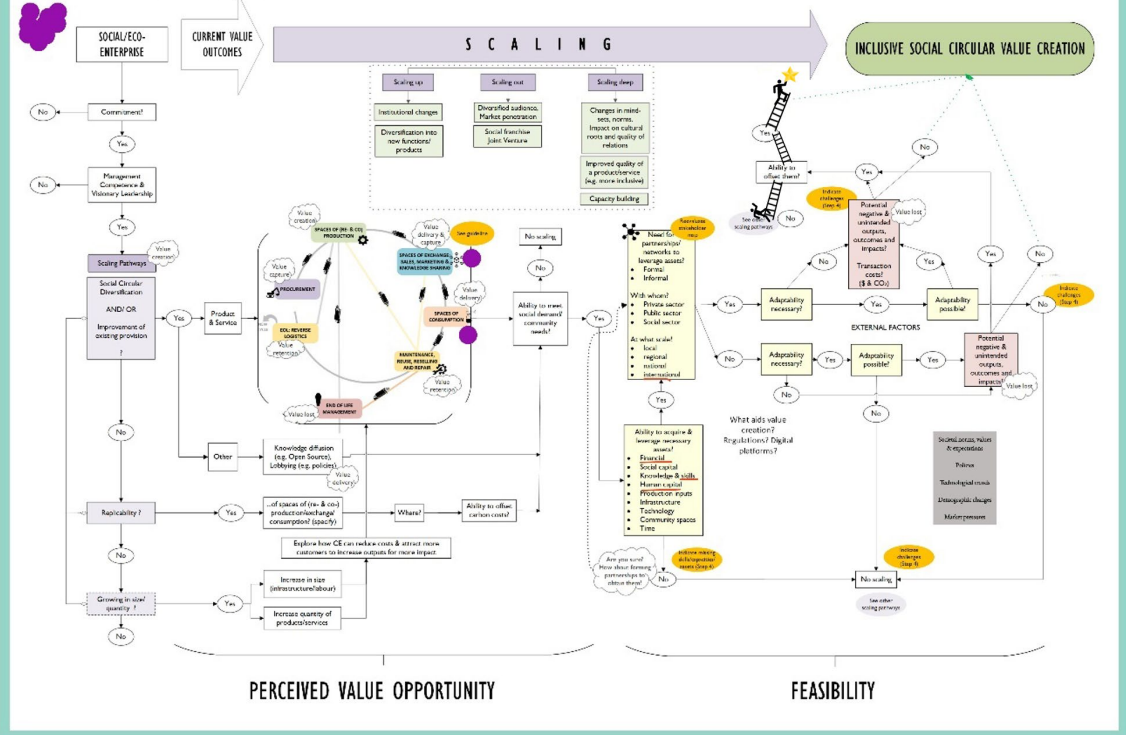
TASK 2: Identify Value Desired.





### 3. Exploring and identifying value scaling strategies to achieve desired value outcomes

TASK: Identify potential scaling strategies using the decision making tree below and evaluate their viability (see Step 4). Add ● next to each potential strategy (including boxes on the right). You can also use pen (you can find it on the right) to indicate your scaling pathways. Have your desired value outcomes changed?



Add ● next to each potential strategy & ● next to already employed strategy.

#### PROCUREMENT

- Production inputs (incl. packaging):**
  - Source: local? (CO<sub>2</sub>) ●
  - Biodegradability ●
  - Reduction of inputs
  - Secondary products (cost savings)
  - Non-toxicity
  - Durability
  - Certified inputs (e.g. Fairtrade)
- Tools:**
  - Low-tech/second-hand tools ●
- Production inputs:**
  - Source: social & community/ (local) artisans? ●
- Employee diversification:**
  - Ex-offenders & prisoners ●
  - Disabled ●
  - Mental health issue ●
  - Elderly ●
  - Ethnic minorities, migrants & refugees ●
  - Children ●
  - Women ●
  - Low-income group ●
  - (Corporate) volunteers ●
- Distance ●
- How will I offset carbon emissions? ●

#### SPACES OF (RE- & CO) PRODUCTION

- Diversification of spaces of production:**
  - Use/refurbish/redevelop vacant infrastructure or share space with others, e.g. community centres (possibility to offer storage service & share facilities with other enterprises/ individuals, incl. membership fees) ●
  - Improve infrastructure: Solar panels & efficient water structure (e.g. rainwater harvesting) ●
  - Water savings ●
- Training for employees (labour insertion) & other entrepreneurs** ●
- Work environment enabling socialization** ●

#### MAINTENANCE, REUSE, RESELLING AND REPAIR

- Am I responsible for end of life?** ●
  - Repair service ●
  - Educate how/where to dispose ●
  - Returnable packaging (incl. financial incentive) ●
  - 'Clean plate' (financial incentive) ●
  - Technical support ●
  - Guarantee ●

#### EOL: REVERSE LOGISTICS

- Can my waste be composted/upcycled/recycled/reprocessed? ●
- Are there any social enterprises that could do it if I don't have capacity to do so? ●

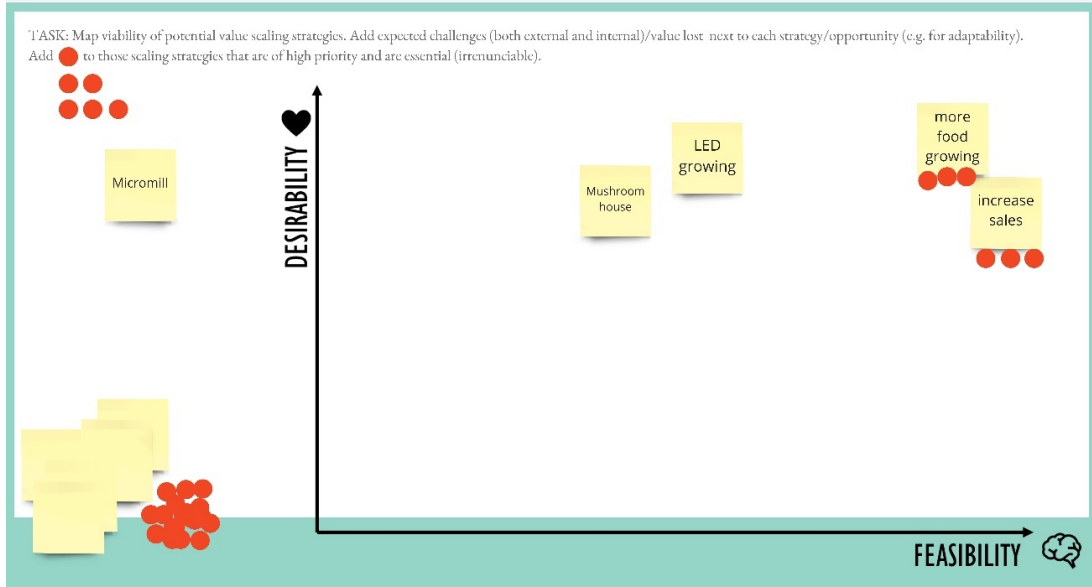
#### END OF LIFE MANAGEMENT

- Waste to be landfilled/incinerated/subject to anaerobic digestion? ●

#### SPACES OF EXCHANGE: SALES, MARKETING

- Products/services being 'exchanged':**
  - DIY kits ●
  - Awareness-raising workshops (online/offline) ●
  - Design service ●
  - Returnable & refillable packaging station or trailers ●
  - Product-as-a-service:
    - Equipment for rental (possibly combined with online workshops)
- Diversification of audience:**
  - Private sector (B2B; corporate gifts) ●
  - Public sector (public procurement/commissioning) ●
  - Social enterprises ●
  - Individual customers ●
  - Vulnerable groups, 'beneficiaries':
    - Ex-offenders ●
    - Disabled ●
    - Mental health issues ●
    - Elderly ●
    - Terminally ill ●
    - Ethnic minorities, migrants & refugees ●
    - Children ●
    - Women ●
    - Low-income groups ●
- Reaching more people:**
  - Mobile App ●
  - Video ●
  - Podcast ●
  - Referrals ●
  - Blog ●
  - Emails ●
  - Social media ●
  - Eco-Labels ●
  - Certification ●
  - Campaigns ●
  - Vouchers (e.g. in collaboration with other enterprises) ●
  - Tailoring products to individual requests ●
  - Home deliveries (cargo bikes?) ●
- Diversification of spaces of exchange (to reach more people):**
  - Mobile shop/trailers (strategic locations) ●
  - Online sales (can you offset CO<sub>2</sub>?) ●
  - Use vacant infrastructure or share space with others (e.g. community centres) to better distribute products/services ●
  - Entering mainstream supermarkets ●

#### 4. Viability and priority mapping of potential scaling strategies



## Appendix 8 – Toolkit for Entrepreneurs Interested in Scaling Social-Circular Impacts

### List of items:

- A** [CANVAS: Integrated Social-Circular Value-Impact Scaling \(ISCIRVIS\) model](#)
- B** [CANVAS: Stakeholders; Resources; Actual & Desired Outputs, Value Outcomes and Value Impacts](#)
- C** [AUXILIARY CANVAS: Stakeholders and Resource Flows: Life Cycle Perspective](#)
- D** [AUXILIARY CANVAS: Value Captured, Lost, Opportunity & Desired](#)
- E** [AUXILIARY BOX: Tangible and Intangible Assets](#)
- F** [TABLE: Scaling Pathways](#)
- G** [CANVAS: Opportunity Desirability vs. Feasibility](#)
- H** [AUXILIARY BOX: Factors that may Impact Scaling](#)

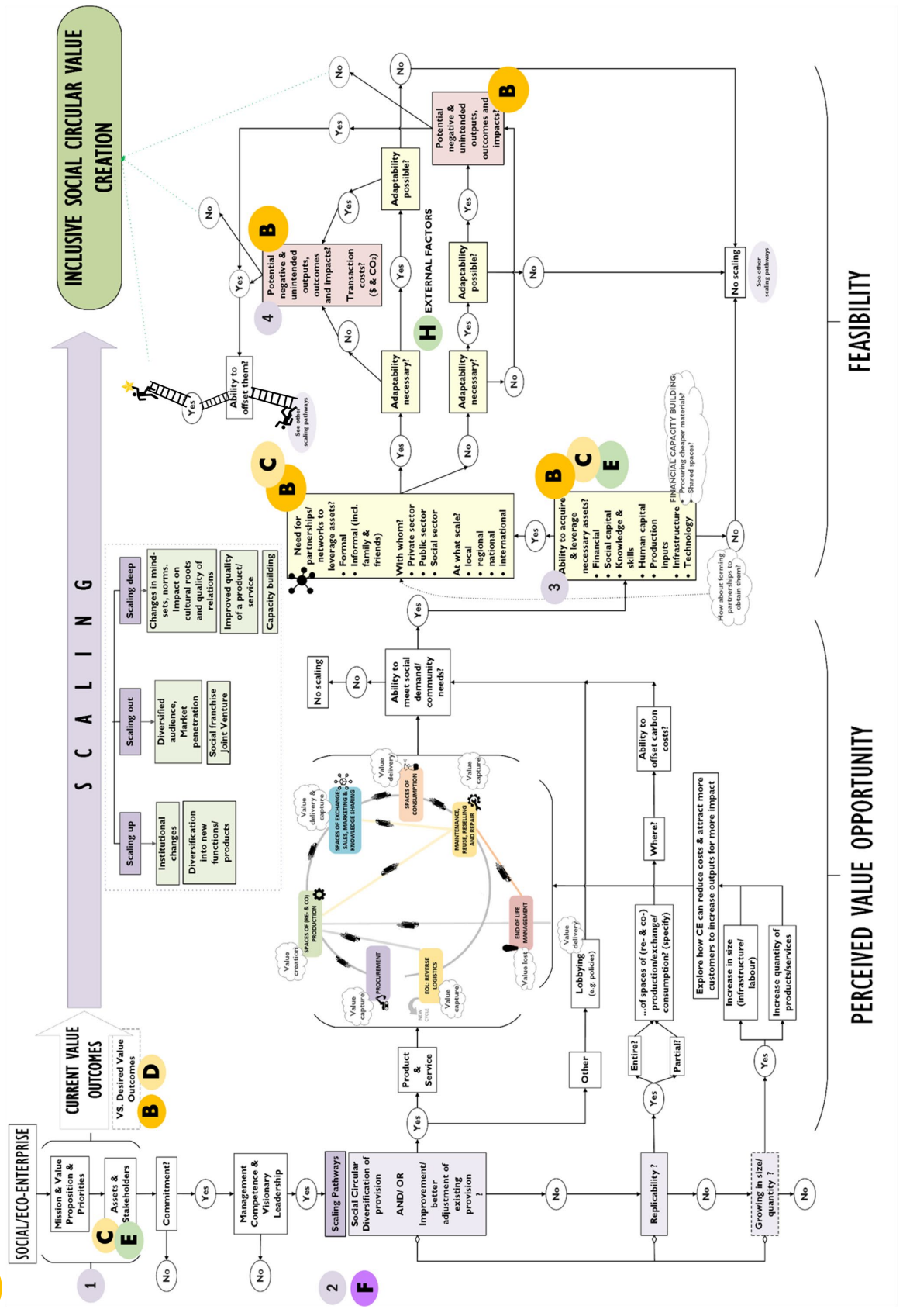
### Steps to follow:

STEPS	TASK	MATERIALS
STEP 1	<a href="#"><u>Verifying organizational Mission, Value Proposition &amp; Priorities</u></a>	<b>A</b> <b>B</b>
STEP 2	<a href="#"><u>Mapping Stakeholders and Resource Flows: Life Cycle perspective</u></a>	<b>B</b> <b>C</b> <b>E</b>
STEP 3	<a href="#"><u>Identifying Actual and Desired Outputs, Value Outcomes and Value Impacts</u></a>	<b>B</b> <b>D</b>
STEP 4	<a href="#"><u>Assessing Commitment, Management Competence &amp; Visionary Leadership</u></a>	<b>A</b>
STEP 5	<a href="#"><u>Exploring Scaling Pathways</u></a>	<b>A</b> <b>F</b> <b>G</b>
STEP 6	<a href="#"><u>Evaluating Feasibility and Risks Associated with Employing Identified Scaling Strategies/Mechanisms</u></a>	<b>A</b> <b>B</b> <b>G</b> <b>H</b> <b>E</b>

Time assigned for each activity depends on the number of workshop participants.

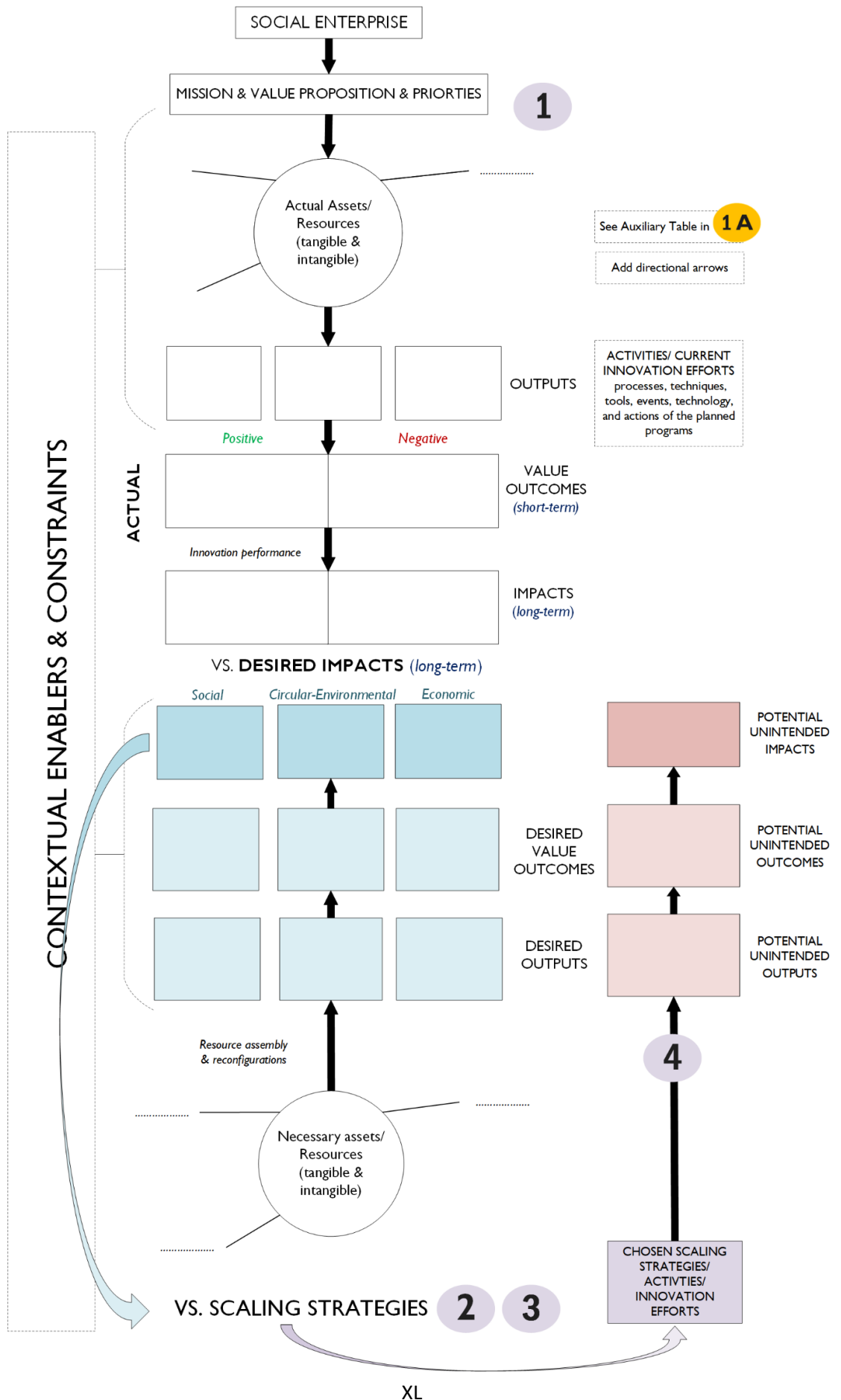


# A CANVAS: Integrated Social-Circular Value-Impact Scaling (ISCIRVIS) model



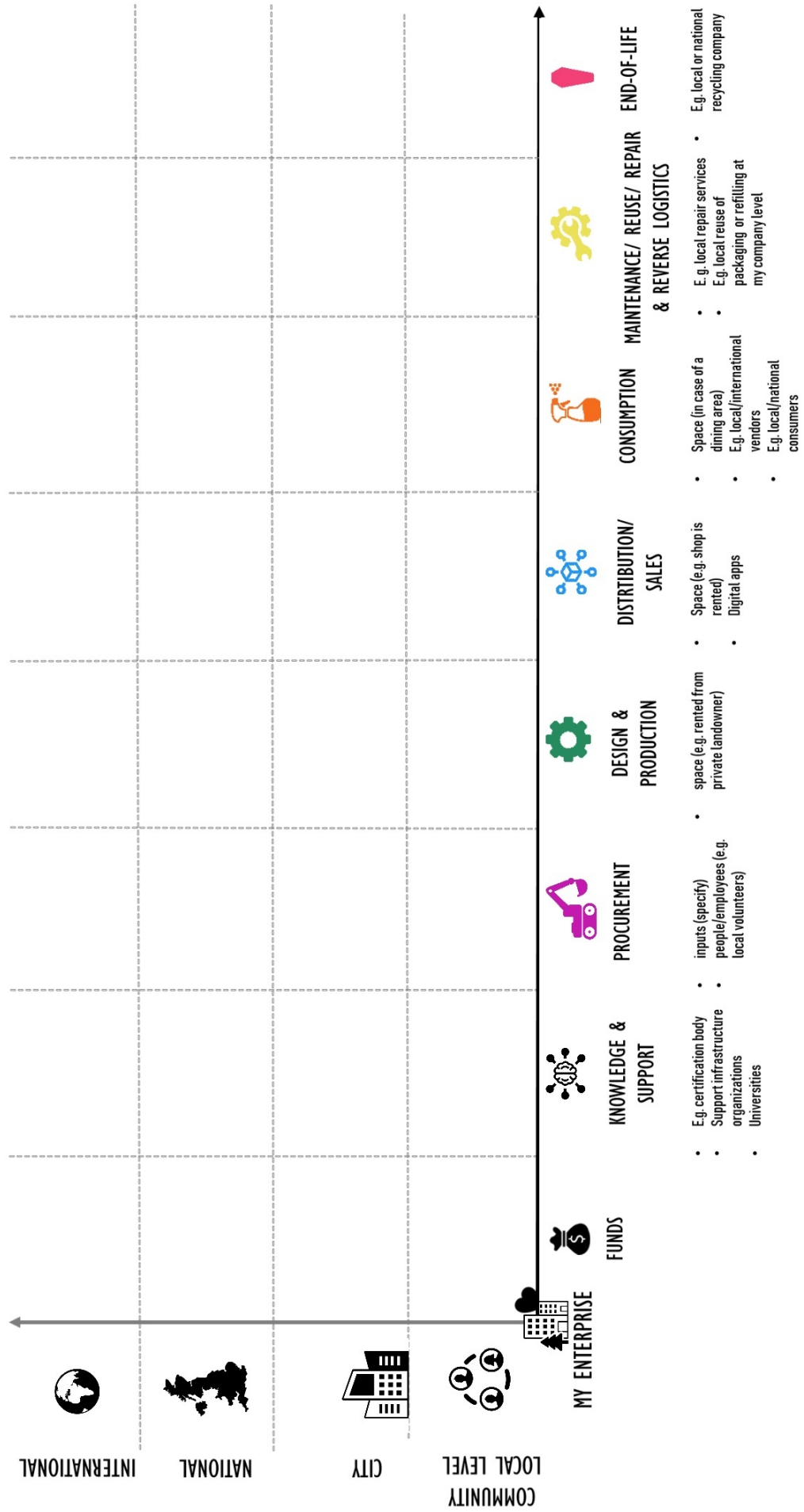
**B**

**CANVAS: Stakeholders; Resources; Actual & Desired Outputs, Value Outcomes and Value Impacts**

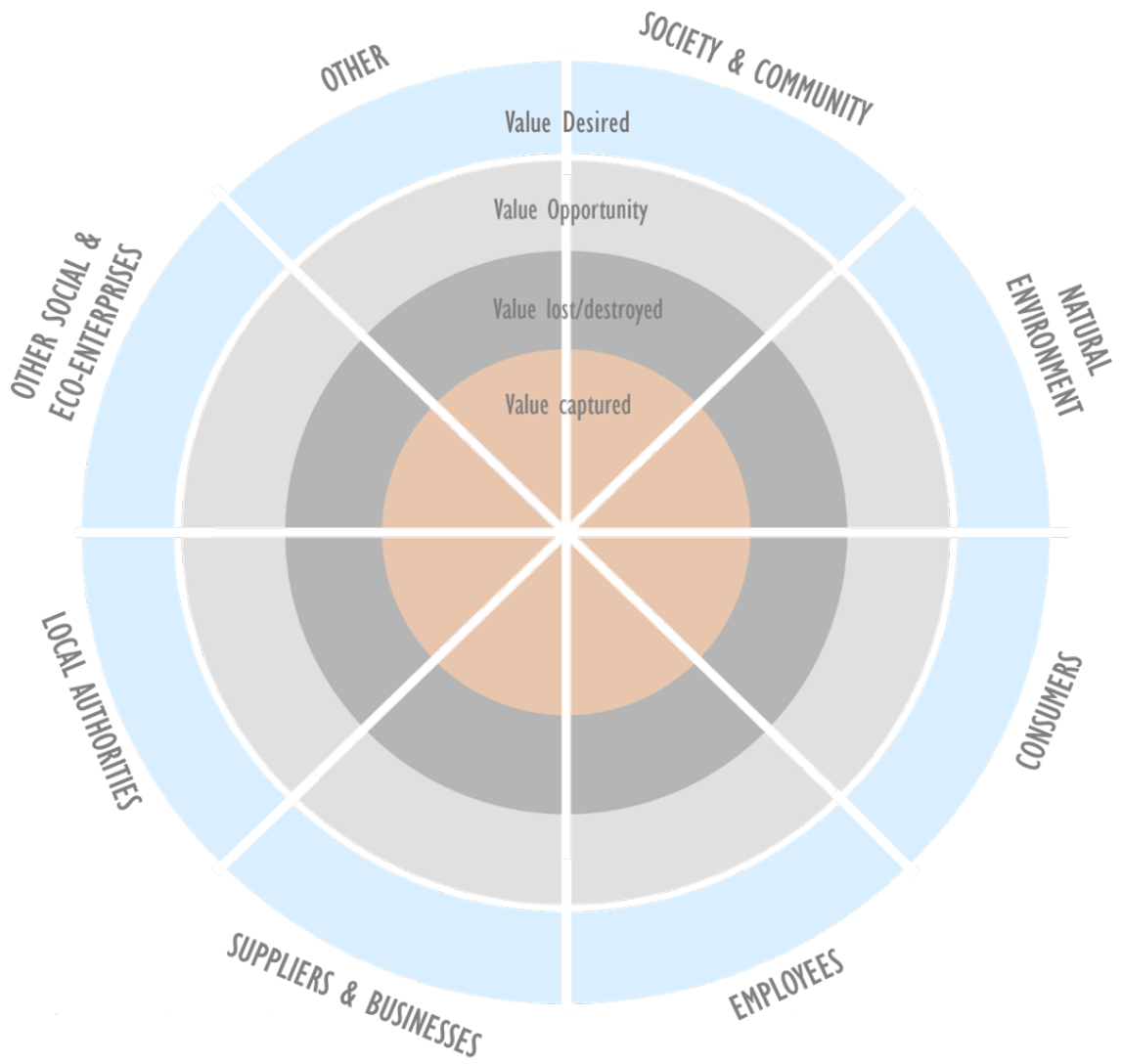




# AUXILIARY CANVAS: Stakeholders and Resource Flows: Life Cycle Perspective







**D** **AUXILIARY CANVAS: Value Captured, Lost, Opportunity & Desired**










**E** AUXILIARY BOX: Tangible and Intangible Assets

Tangible assets	Intangible assets
<ul style="list-style-type: none"> <li>• <b>Financial capital</b></li>   <li>• <b>Human capital/employees and partners</b></li>   <li>• <b>Production inputs/saleable outputs/'waste'/surplus materials</b></li>   <li>• <b>Infrastructure &amp; Property (owned/shared)</b></li>   <li>• <b>Technology and tools</b></li>   <li>• <b>Vehicles</b></li>   <li>• <b>Consumers</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Commitment</b></li>   <li>• <b>Knowledge/ Expertise</b> <ul style="list-style-type: none"> <li>○ social and environmental impacts</li> <li>○ policies</li> <li>○ suppliers/beneficiaries/distributors</li> <li>○ circular economy</li> </ul> </li>   <li>• <b>Skills and capacities</b> <ul style="list-style-type: none"> <li>○ leadership and management</li> <li>○ ability to transform knowledge into practice</li> <li>○ ability to mobilize resources</li> <li>○ operational</li> <li>○ team working</li> <li>○ marketing</li> <li>○ relational (ability to work with different partners and communities)</li> </ul> </li>   <li>• <b>Time</b></li>   <li>• <b>Reputation/brand</b></li>   <li>• <b>Property rights</b></li> </ul>

**F** TABLE: Scaling Pathways





Scaling pathways: towards socially inclusive circular impacts				Key capacity building requirements/neces- sary skills and resources	Potential challenges (value lost)
Scaling strategy	Economic unit	Productive capital	Scaling mechanism/ practice		
Improvement and/or diversification of existing provision (product/ service)	PROCUREMENT	  <b>Production inputs</b>	Local source	Knowledge on resource providers; liaison skills; commissioning skills	Lack of local resource providers
			Biodegradability		Poor recycling infrastructure
			Reduction of inputs		Limited options
			Secondary/surplus products (e.g. from collection points or SEs: see EoL)		Perception (e.g. on food surplus); quality; public liability insurance/unlabelled food cannot be donated (food); charity shops cannot sell second-hand toys/prams due to strict regulations (UK)
			Wonky vegetables (*food sector only)		Finding (local) resource providers; incentivizing food growers to provide wonky vegetables; public perception
			Non-toxicity; organic (food)		Expensive (organic food)
			Reusability (e.g. packaging)		Extra time to replace old labels with new ones; washing expenses
			Durability		Expensive
		Certification	Knowledge on certifications and eco- labels	Extra costs (also for customers)	
		  <b>Tools</b>	Low-tech/second-hand and/or rented tools	Knowledge on resource providers	Lack of local resource providers
			  <b>Production inputs</b>	Source: community/(local) artisans	Networking and management skills
		  Ex-offenders & prisoners Youth from probation Disabled			



		<b>Employee diversification</b>	Mentally struggling	Networking and management skills; Accountability; Ability to find new competences; Absorptive skills (knowledge); bid writing skills*	Increased costs (often supervision required, especially when it comes to woodwork)		
			Students (temporary placements)				
			Low-income groups				
			(Freelance) artists/craftsmen		As above & difficulties in finding committed volunteers		
			Women				
			(Corporate) volunteers				
			Ethnic minorities, migrants & refugees			language barrier	
			 <b>Knowledge</b>			External advisors; circular brokers; specialized staff	Time consuming
			 <b>Money</b>			External (corporate) grants; microcredits; trading (see spaces of exchange)	Reduced autonomy in case of reliance on external funding
	<b>SPACES OF (RE &amp; CO) PRODUCTION (KNOWLEDGE, PRODUCTS &amp; SERVICES)</b>	 <b>Space</b>	Usage (rental)/refurbishment/ redevelopment of vacant infrastructure (e.g. through asset transfer)	Llason skills	Lack of asset transfer scheme; Extra costs		
			Share space with other organizations (e.g. offer storage)	Networking/relational skills and accountability	Conflicts of interest		
			Furniture from upcycled materials (e.g. wood)	Procurement skills	Wood quality		
			Instal solar panels	Knowledge on resource providers	Increased costs (initial investment)		
			Ensure efficient water infrastructure		Increased costs (initial investment)		
			Compostable toilet		Regulations		
		 <b>Employees</b>	Training (laboral insertion)	Training skills	Increased costs (management, teaching)		
			Socialization	Communication and management skills	Increased costs (time)		
		 <b>Design</b>	Design for durability (high quality)	Circular design skills	Increased costs (for customers)		
			Design for reperability				
Design for returns/refills	Public awareness						

Improved delivery of existing provision; increased market penetration/outreach & diversification of audience	SPACES OF EXCHANGE (SALES/ (RE)DISTRIBUTION, MARKETING & KNOWLEDGE SHARING - LEARNING)	 <b>Space</b>	Share space with other organizations <b>(see 'Joint Ventures')</b>	Networking/relational skills and accountability	Conflicts of interest
			Furniture from upcycled materials (e.g. wood)	Procurement skills	Wood quality
			Installing modular containers	Knowledge on resource providers	Public awareness
			Instal solar panels		Increased costs (initial investment)
			Ensure efficient water infrastructure		Increased costs (initial investment)
			Compostable toilet		Regulations
		 <b>Audience/ Space</b>	Usage (rental/free)/refurbishment/redevelopment of vacant infrastructure to better distribute products/services <b>(see 'Replicability')</b>	Llason skills	Lack of asset transfer scheme; Extra costs
			Co-location of spaces of exchange with spaces of production and/or consumption		Limited options
			Offer a meeting space (for private companies/ individuals)		Low demand
			Mobile shop/trailers/community fridges/(charity) fairs (strategic locations)	Market research	Regulations
			Auctions	Outreach skills	/
			Incentives to return/reuse packaging/zero-waste	Marketing and outreach skills	Low consumer awareness
			Online sales or rental/exchange platforms (incl. library of things)		Carbon footprint (international sales)
			Social media (incl. videos, podcast)	Marketing and outreach skills; creativity	Time consuming; Cyber attacks
			Radio/ local news	Outreach skills	/
			Mobile app	Technological skills (software development and maintenance); recruitment skills	Maintenance costs



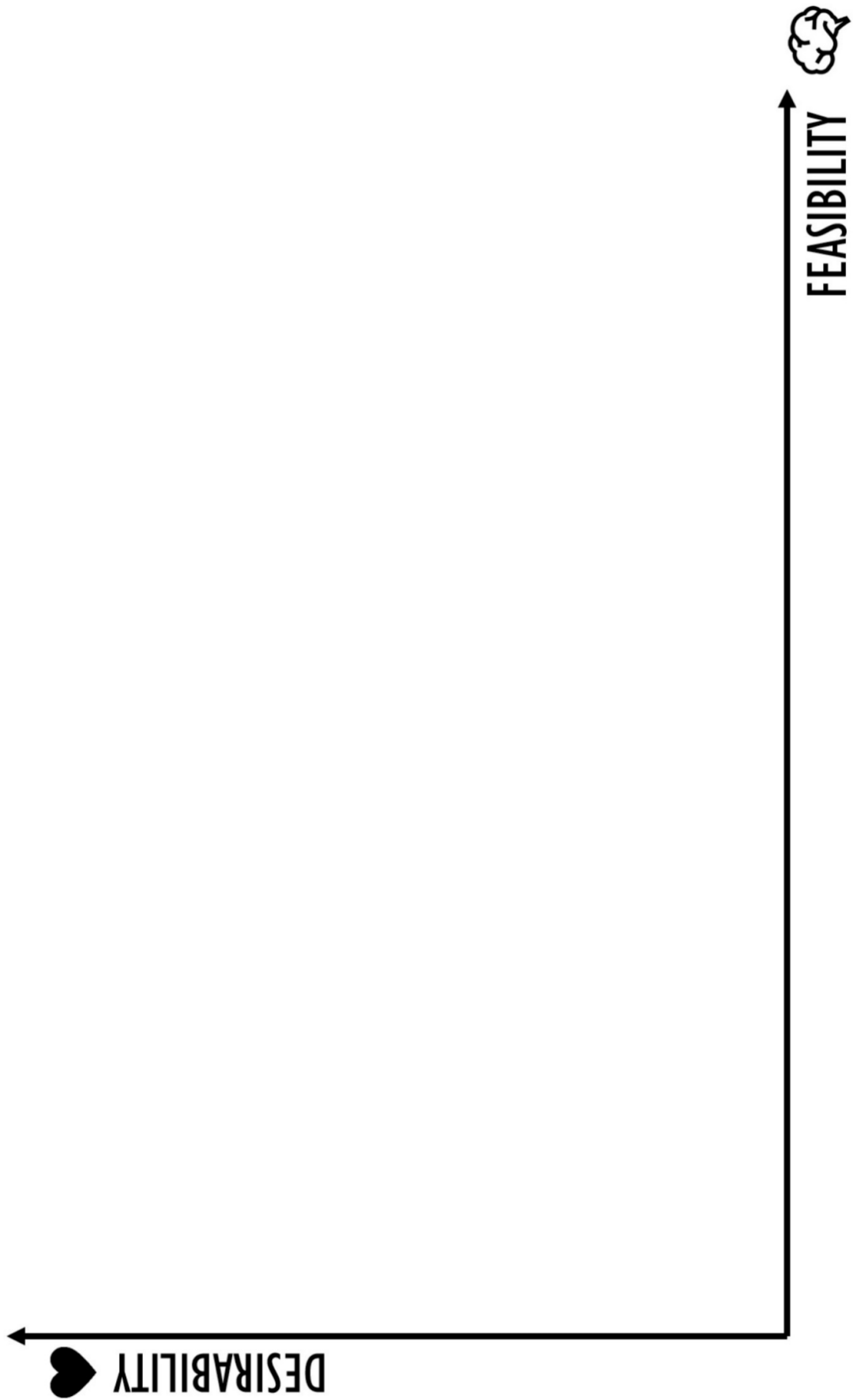
		Certification and eco-labels; tags	Knowledge on certifications and eco-labelling	Expensive products
		Campaigns	Co-ordination, outreach and management skills	Time consuming
		Trade fairs and corporate events (Corporate) Membership		May deter some consumers
		Vouchers		
		Tailoring to individual requests/ design service		Communication skills
		Home deliveries (e.g. using cargo bikes); may be mediated through external distributors	Co-ordination and management skills; knowledge of providers	Poor cycling infrastructure; can be costly (i.e. service)
		Alternative currencies	Outreach skills	Low financial returns
		Referrals	Networking	Time consuming
		Contracts with local authorities (public procurement, commissioning)	Bid writing skills; relational/liaison/negotiation skills; contracting skills (possibility to join and form consortia to tender for public sector contracts)	Costly (to show social impacts)
		Contracts/Agreements with other SEs/their spaces of exchange	Networking and negotiation and/or contracting skills	High commissioning fees for some SEs
		Agreements with other SEs/health sector on social prescribing		Clinical approach (too much monitoring)
		Agreements with private sector (B2B; corporate gifts)		Greenwashing
		Social enterprises & NGOs - shared activities & direct access to (vulnerable) groups: * Ex-offenders & prisoners * Disabled * Mentally struggling * Ethnic minorities, migrants & refugees		Competition (if not complementary)

			* Women	Networking & liaison skills	Health and safety protocols	
			* Low-income groups/neighbourhoods/communities			
			* Children and infants			
			* Homeless			
			* Elderly			
			* Terminally ill			
			Agreements with mainstream supermarkets			Commissioning fees
			Agreements with art sector/museums			
			Agreements with hotels/tourism sector			
			Awareness-raising workshops (online/offline); may include DIY kits			Training and teaching skills
			Consultancy services	Expertise knowledge	Consultancy fees may be low	
			Equipment for rental (possibly combined with online workshops)	Management skills	Extra costs (need for storage)	
			Knowledge diffusion (Open Source)	Ability to invest without financial recompense	Cyber attacks; Improper referencing	
			Policy lobbying	Lobbying and communication skills	Difficult to challenge silo mentality	
Improvement (impact maximization) and/or diversification of existing provision	SPACES OF CONSUMPTION	   <b>Space</b>	Usage (rental)/refurbishment/redevelopment of vacant infrastructure	Llason skills (e.g. with local authorities owning assets for rental)	Lack of asset transfer scheme; Extra costs	
			Share space with other organizations	Networking/relational skills and accountability	Conflicts of interest	
			Instal solar panels	Knowledge on resource providers	Increased costs (initial investment)	
			Dining furniture from upcycled/donated materials (e.g. wood)		Wood quality	
			Ensure efficient water infrastructure		Increased costs (initial investment)	
			Compostable toilet		Regulations	
		 	Repair service		Not always profitable	

	<b>MAINTENANCE, REUSE, RESELLING &amp; REPAIR</b> (see spaces of re- & co-production)	 <b>Audience/ Consumed outputs</b>	Repair service		Not always profitable	
			Returnable & refillable packaging (e.g. refillable station; may include financial incentive)	Knowledge on safety regulations (food, cosmetics)	Extra logistics and costs (re-labelling of jars; washing packaging); Reliant on customer's willingness to return item	
			Educating on how/where dispose packaging		Reliant on customer's willingness to learn	
			Returnable product	Knowledge on safety regulations	Reliant on customer's willingness to return item	
			Technical support and guarantee to customer		Extra costs	
	<b>EOL: REVERSE LOGISTICS</b> (see spaces of re- & co-production)	 <b>Consumer outputs</b>	Agreements with recycling/composting/reprocessing enterprises to handle returned waste	Knowledge on service providers	Extra costs	
	<b>Spatial scaling: other ways to maximize impacts across spaces of production, exchange and consumption</b>	<b>Social franchise (replicability)</b>		Capitalize on infrastructure assets around the city (e.g. parks, churches, cafes, libraries, community spaces)	Investment in market research; management; financial capital; visionary leadership	Extra costs
		<b>Joint venture</b>				Conflicts of interest
		<b>Hub-and-spoke/ 'satellites' across the city</b>				Conflicts of interest; Extra costs
		<b>Spin-out</b>				Extra costs

<b>Physical in-house growth (volume)</b>	<b>Increase volume of offered products/services (= increase inputs; customer base &amp; sales; see spaces of exchange)</b>	See 'procurement' on how to sustainably increase volume	Growth management skills; marketing skills to increase customer base to generate more income (see spaces of exchange); fundraising/grant seeking (financial capital); knowledge on safety standards	Regarding upcycling: difficulty finding materials of same colour/texture; Extra costs
	<b>Increase in size (infrastructure/labour)</b>	Capitalize on existing infrastructure assets around the city	Growth management skills; marketing skills to increase customer base to generate more income (see spaces of exchange); fundraising/grant seeking (financial capital); share infrastructure with others	Extra costs

**G** CANVAS: Opportunity Desirability vs. Feasibility



## **H** AUXILIARY BOX: Factors that may Impact Scaling

### **Possible external factors that may impact scaling (& may require adaptability):**

- **Societal norms, values & expectations**
- **Policies**
- **Technological trends**
- **Demographic changes**
- **Market pressures**

## Steps to follow:

<b>STEP 1</b>	<b>Verifying organizational Mission, Value Proposition &amp; Priorities</b>	<b>A B</b>
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Identify your organisation's mission, value proposition and key priorities.

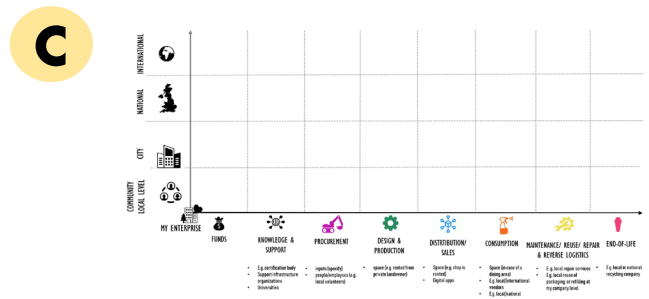
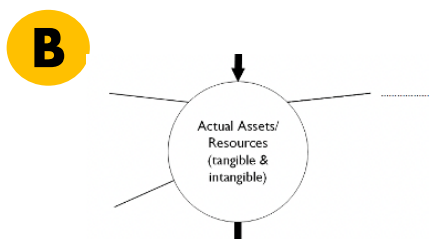
Why should buyers choose your product(s) and service(s)?

What kind of value do you promise to deliver to your customers?

What are currently the most important actions, activities, products and/or services delivered by your organisation?

<b>STEP 2</b>	<b>Mapping Stakeholders and Resource Flows: Life Cycle perspective</b>	<b>B C E</b>
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Using the top box in Canvas B, identify stakeholders linked to your company, specifying any inputs/(in)tangible assets procured from, delivered to, or exchanged with, each actor (i.e., private, social, and public sector organizations). Alternatively, or in a complementary fashion, you can use multi-stakeholder Canvas C, which additionally helps to map stakeholders from a life cycle perspective whilst differentiating resource circulation at the community/local, city, national and international levels. Use Auxiliary Box E to better identify relevant resources.

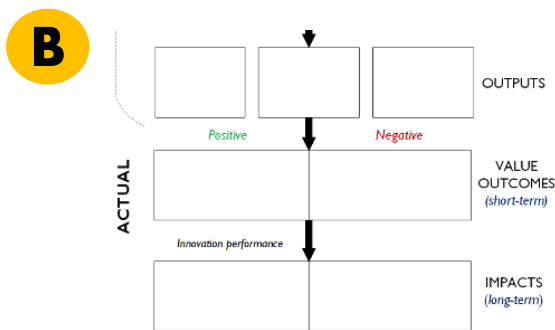


**E**

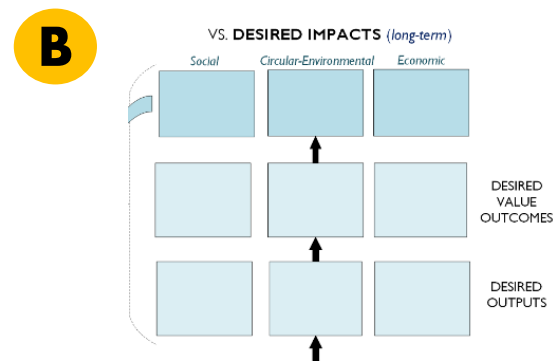
Tangible assets	Intangible assets
<ul style="list-style-type: none"> <li>Financial capital</li> <li>Human capital/employees and partners</li> <li>Production inputs/saleable outputs/waste/surplus materials</li> <li>Infrastructure &amp; Property (owned/shared)</li> <li>Technology and tools</li> <li>Vehicles</li> <li>Consumers</li> </ul>	<ul style="list-style-type: none"> <li>Commitment</li> <li>Knowledge/ Expertise               <ul style="list-style-type: none"> <li>social and environmental impacts</li> <li>policies</li> <li>suppliers/beneficiaries/distributors</li> <li>circular economy</li> </ul> </li> <li>Skills and capacities               <ul style="list-style-type: none"> <li>leadership and management</li> <li>ability to transform knowledge into practice</li> <li>ability to mobilize resources</li> <li>operational</li> <li>team working</li> <li>marketing</li> <li>relational (ability to work with different partners and communities)</li> </ul> </li> <li>Time</li> <li>Reputation/brand</li> <li>Property rights</li> </ul>

<b>STEP 3</b>	<b>Identifying Actual and Desired Outputs, Value Outcomes and Value Impacts</b>	<b>B</b>	<b>D</b>
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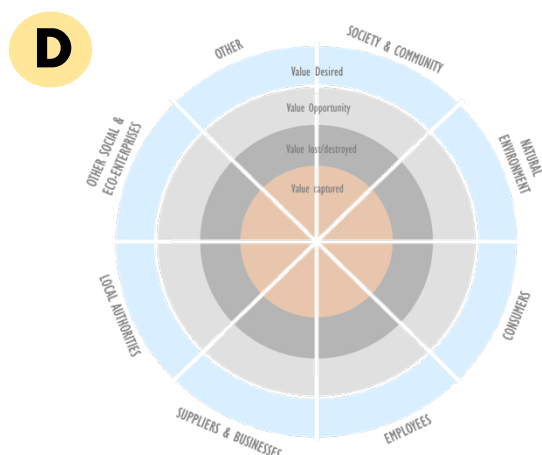
Using Canvas B, identify actual outputs, value outcomes (short-term) and value impacts (long-term) associated with your activities. Specify whether those value outcomes/impacts are positive or negative. Negative value outcomes/impacts may also refer to those value outcomes/impacts that were missed, i.e., could not occur due to certain internal/external factors.



Then, identify desired value impacts (long-term), value outcomes (short-term) and outputs. Specify whether those desired value impacts, value outcomes and outputs are social, circular-environmental and/or economic.



Alternatively, or in a complementary fashion, use Canvas D to map the following types of value that are associated with different stakeholders: value captured; value lost (e.g. excludability; competitors, waste); value opportunity (incl. business, technological and market opportunities; waste from another business actor that could be used on your site); value desired.





<b>STEP 4</b>	<b>Assessing Commitment, Management Competence &amp; Visionary Leadership</b>	<b>A</b>
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Assess whether there is enough commitment, management competence and visionary leadership in your enterprise.

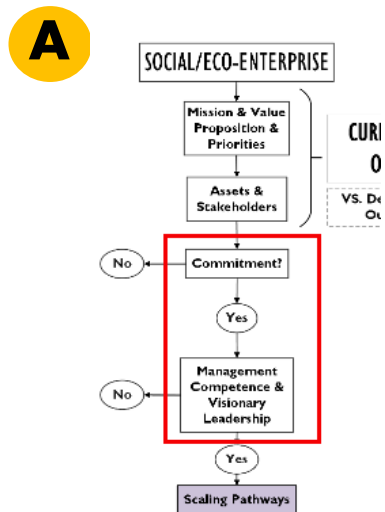
How committed is your enterprise to improve its business model?

How strong are managerial competences (knowledge and skills) in your team?

Do those competencies contribute to productivity in your workplace?

Do you have a leader in your team who has a clear idea of the future?

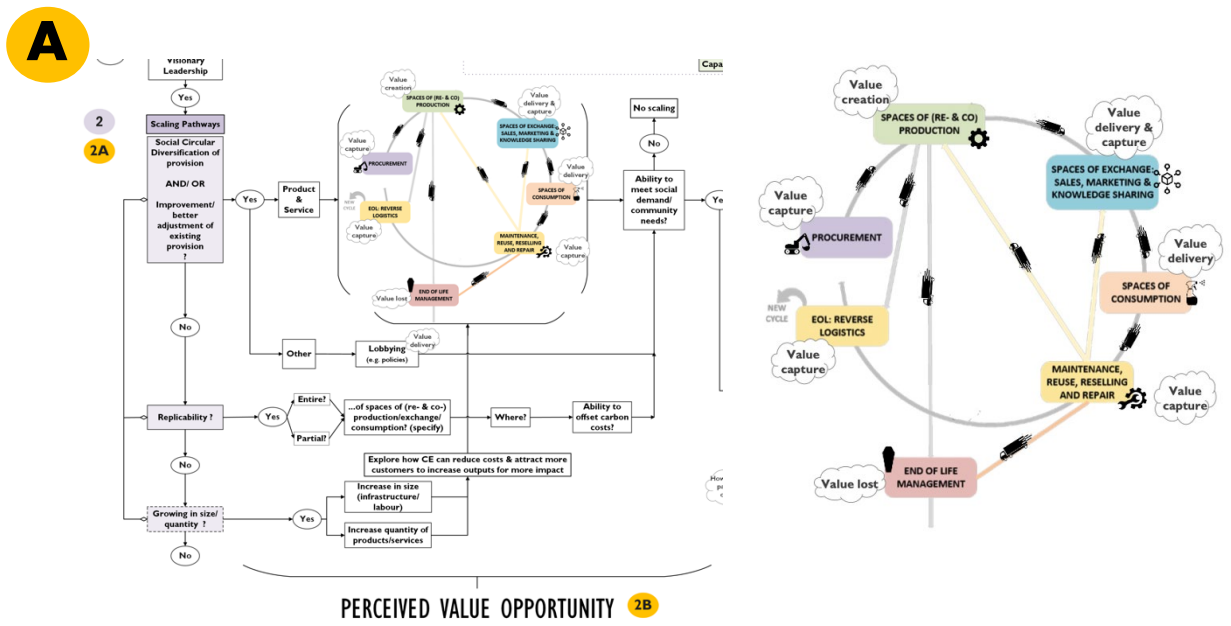
Are you ready to take any necessary risks to improve your business model?



**STEP 5** *Exploring Scaling Pathways* **A F G**

Explore and identify potential desired scaling strategies/mechanisms ('perceived value opportunity') using Canvas A and Table F featuring scaling strategies/mechanisms in the context of necessary skills & resources and potential challenges. Juxtapose/compare them with desired outputs and value outputs/impacts indicated on Canvas B.

Write them down on sticky notes and place them on Canvas G ('Opportunity Desirability vs. Feasibility' canvas) indicating the level of desirability of pursuing respective scaling pathways (do not focus on 'Feasibility' part just yet).



**F**

Scaling pathways: towards socially inclusive circular impacts				Key capacity building requirements/necessary skills and resources	Potential challenges (value lost)
Scaling strategy	Economic unit	Productive capital	Scaling mechanism/practice		
Improvement and/or diversification of existing provision (product/...)	PROCUREMENT	🌱💰	Local source	Lack of local resource providers	
			Biodegradability		Poor recycling infrastructure
			Reduction of inputs		Limited options

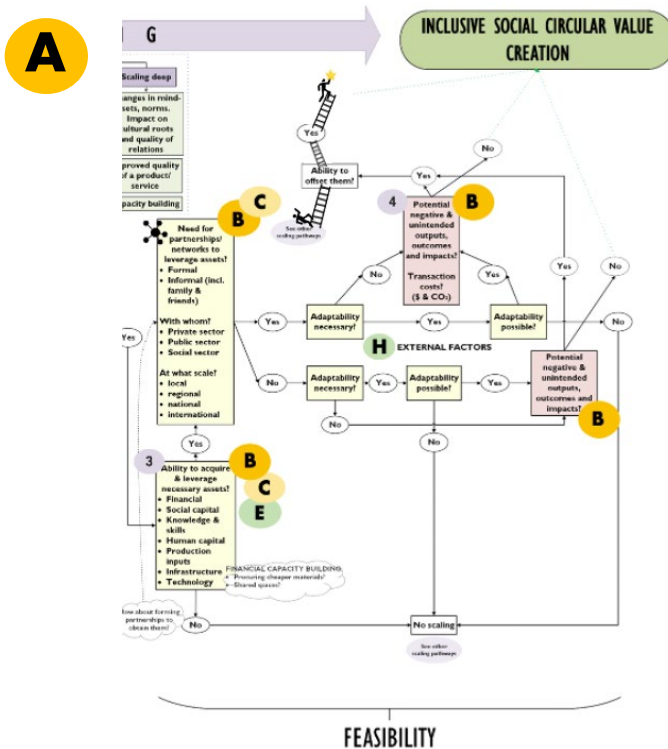
**G**



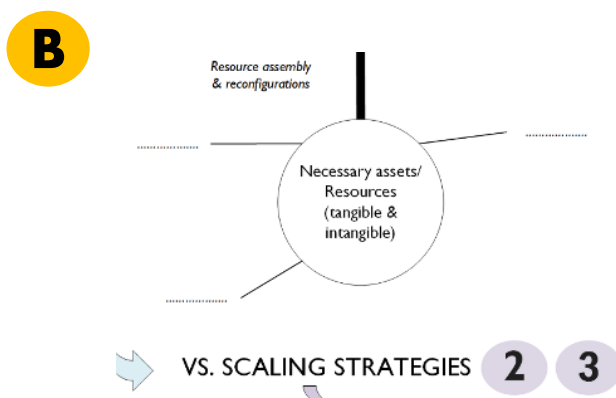
**STEP 6** *Evaluating Feasibility and Risks Associated with Employing Identified Scaling Strategies/Mechanisms*



Evaluate the feasibility and potential risks associated with pursuing identified scaling strategies/mechanisms using Canvas A (ISCIRVIS model).

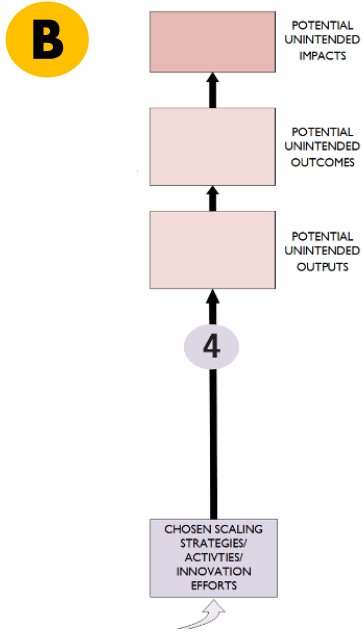


Revisit the current resource configurations indicated on Canvas B and/or Canvas C (STEP 2). Using Canvas B, indicate what kind of resource (re)configurations are required to pursue desired scaling pathways (see Auxiliary Box E to identify necessary resources). Are you able to acquire and leverage necessary resources?



Tangible assets	Intangible assets
<ul style="list-style-type: none"> <li>Financial capital</li> <li>Human capital/employees and partners</li> <li>Production inputs/saleable outputs/waste/surplus materials</li> <li>Infrastructure &amp; Property (owned/shared)</li> <li>Technology and tools</li> <li>Vehicles</li> <li>Consumers</li> </ul>	<ul style="list-style-type: none"> <li>Commitment</li> <li>Knowledge/ Expertise                             <ul style="list-style-type: none"> <li>social and environmental impacts</li> <li>politics</li> <li>suppliers/beneficiaries/distributors</li> <li>circular economy</li> </ul> </li> <li>Skills and capacities                             <ul style="list-style-type: none"> <li>leadership and management</li> <li>ability to transform knowledge into practice</li> <li>ability to mobilize resources</li> <li>operational</li> <li>team working</li> <li>marketing</li> <li>relational (ability to work with different partners and communities)</li> </ul> </li> <li>Time</li> <li>Reputation/brand</li> <li>Property rights</li> </ul>

Then, write down any potential unintended outputs, value outcomes and value impacts on Canvas B. Are there any external factors that require adaptation to? See examples of possible external factors that may impact scaling in Auxiliary Box H.



Then, rearrange sticky notes with respective scaling strategies on Canvas G 'Opportunity Desirability vs. Feasibility' with regards to feasibility.

