

**‘We the People: Supporting Food
SMEs towards
a Circular Food Economy’**

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**'We the People: Supporting Food SMEs towards
a Circular Food Economy'**

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of
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Declaration

I, Toni J.K Burrowes Cromwell, declare that the thesis entitled: 'We the People: Supporting Food SMEs towards a Circular Food Economy' submitted is my own work. I have maintained professional integrity during all aspects of my research degree and, I have complied with the Institutional Code of Practice and the Regulations for Postgraduate Research Degrees.

Herewith, I confirm that neither this work nor parts of it have been submitted as part of another degree or qualification at Manchester Metropolitan University or any other institution.

This research has been conducted by me under the supervision of Prof. Alberto Paucar-Caceres (Director of Studies) and Prof. Susan Baines.



Toni Burrowes-Cromwell

Dedication

To my Drew, to Daddy and to my beloved family (both sides of the Atlantic).

Acknowledgements

*'For in Him all things were created,
things in heaven and on earth, visible and invisible,
whether thrones or dominions or rulers or authorities.
All things were created through Him and for Him.
He is before all things,
and in Him all things hold together. . .'*

Col. 1:16-11 (BSB)

I am indebted to my Supervisory Team; Professor Alberto Paucar-Caceres and Professor Susan Baines. Over the past years, you have helped me to steer thoughts and ideas through what often seemed like an endless trek. Your critique, gentle nudges and incredible patience provided me space to learn. These have been invaluable throughout this PhD. journey. I would also like to mention the early support of Dr Valerie Antcliff (now retired) who was part of the supervisory triad at the start of this Project.

A very special thanks to the WRAP/ TRiFOCAL team who also supported this research. As for the numerous interviewees, focus group and workshop participants representing HaFS and, the range of organisations, concerned about people, our food and environment- many thanks. Your generous gift of time, exchange of ideas and networking were investments. They helped to make this assignment a reality.

To: Denise, the 'Honourable Ray', Nita, Rob, Frank, John, Vicki, Keith, Mike and other friends who encouraged me and cheered incessantly from the stands, I am responding (finally!) with this document and a heartfelt 'Thank you'.

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Abstract

This single Case Study locates SME (small and medium-size enterprise) hospitality and food services (HaFS) within a complex food waste system. It examines collaborative support for business change from linear resource wastage ('take, use, dump), towards a circular food economy (CfE)- where 'designing out' food waste may reap savings. The objective is to support SME uptake of waste aversion practices so that they may thrive.

The qualitative research centers on a London-based project promoting food waste valorization and healthy nutrition, in 15 boroughs. That project's outreach for broad-based, collective impact included HaFS that are SMEs. Cross-sector liaison was the research focus for this Case Study which utilizes a hybrid philosophy and meta-framework, based on Critical Realism and Systemic Thinking. Some reference to Interpretivism highlights stewardship values for transforming individual behaviour.

The Study also uses a multi-method design, borrowing soft systems from Management Science and Operational Research. Its blended approach includes: participant observation, mapping and rich picture techniques, semi-structured interviews and focus groups. The main research questions align concepts such as: circular economy, cross-sector collaboration and food waste management- with HaFS that are SMEs. A framework method and Leximancer software supported coding and qualitative thematic analysis.

Primary findings include interesting categories of analytical, NGO and policy literature. Although conversations flagged up pivotal roles for our health and education sectors, the food SME element still seems peripheral in this transition to regenerative business. A 'people vibe' is enabling some HaFS' kitchen waste action and food redistribution and, academia is a potential contributor to this information resource flow among stakeholders.

The Study's unique onto-epistemological framework enhances philosophical and theoretical knowledge about promoting SME resource stewardship. It spans Systemic Thinking (overt connections and acute complexities) and Critical Realism (deep mechanisms and institutional power differentials, impacting change). As an interpretive lens, the framework's contribution to praxis was

tested by shadowing the London TRiFOCAL project. This research could inform a business policy shift from traditional supply chain thinking, towards active UK food citizenship.

RECENT RESEARCH WORK & ACADEMIC COLLABORATIONS

Cavalcanti-Bandos, M.F, Quispe-Prieto, S., Paucar-Caceres, A., Burrowes-Cromwell, T. & Rojas-Jiménez, H.H. (2021). 'Provision of education for sustainability development and sustainability literacy in business programmes in three higher education institutions in Brazil, Colombia and Peru.' *International Journal of Sustainability in Higher Education*. 22(5).

Abuabara, L., Paucar-Caceres, A. & Burrowes-Cromwell, T. (2019). 'Consumers' values and behaviour in the Brazilian coffee-in-capsules market: Promoting circular economy'. *International Journal of Production Research*. 57 (23), pp. 7269-7288.

Abuabara, L., Paucar-Caceres, A., Belderrain, M.C. N. & Burrowes-Cromwell, T. (2018). 'A systemic framework based on Soft OR approaches to support teamwork strategy: An aviation manufacturer Brazilian company case'. *Journal of the Operational Research Society*. 69(2), pp.220-234.

Academic Collaborations

'Strengthening Collaborative Food Waste Prevention in Colombia and Peru: towards responsible production and consumption'. (2021). QR_GCRF 2020/2021, MMU in collaboration with: Universidad EAFIT (Colombia), Universidad Privada del Norte; Universidad Jorge Basadre Grohmann and SINBA (Peru)

Collaborative Case Study: 'What have we done differently in TRiFOCAL to engage with businesses?' (2020). Available: <http://resources.trifocal.eu.com/resources/case-study-trifocal-business-approach/>

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Glossary

B2B	Business to Business
BBE	Bio-based Economy
BIS	Department for Business Innovation and Skills
BWGs	Business Working Groups
CE	Circular Economy
CfE	Circular Food Economy
CI	Collective Impact
CIEH	Chartered Institute of Environmental Health
CR	Critical Realism
CSR	Corporate Social Responsibility
CST	Critical Systems Thinking
DEFRA	Department for Environment, Food and Rural Affairs
EM	Environmental Management
EU	European Union
EDIE	(Network Empowering Sustainable Business)
FSB	Federation of Small Businesses
GHRM	Green Human Resource Management
HaFS	Hospitality and Food Services
HAFSA	Hospitality and Food Services Agreement
HE	Higher Education
LWARB	London Waste and Recycling Board
MFA	Material Flow Analysis
MOU	Memorandum of Understanding
MMU	Manchester Metropolitan University
OoH	Out of Home Services
PPP	Public-Private Partnership
RO	Research Objective
SRA	Sustainable Restaurant Association
SC	Supply Chain

Glossary continued

SSM	Soft Systems Methodology
ST	Systemic Thinking
TMA	Target Measure Act
TRiFOCAL	Transforming Food City Habits for Life
UNSDGs	United Nations Sustainable Development Goals
UNEP	United Nations Environment Programme
WRAP	Waste and Resources Action Programme
WRI	World Resources Institute
YBIF	'Your business is food don't throw it away!'

CHAPTER 1 Introduction

'Given the difficult market situation of food sector SMEs as well as the necessity to cooperate for being able to create and launch food innovations, there is a need for research that deepens understanding of how SMEs experience their relationships and configure modes of interaction with asymmetric partners.'

Colurcio, & Russospina (2013:651)

1.1 The Research Issue: Support for food SME participation towards CE uptake and beating food waste.

Nowadays, global food corporates and large UK food chains are adjusting their business models to drive down food waste metrics, through cross-sector partnerships. It follows that smaller enterprises (with reduced scale, scope and capacity) should not be expected to go it alone. If these businesses are to meet national food waste obligations and to benefit from the regenerative business model of a circular economy (CE), they too will need help getting on board. Yet, although CE principles are gaining traction in some business operations, managing human participation and the social dimension of this paradigm shift is still a fairly undeveloped subject (Papargyropoulou, et. al. 2016; Jabbour, Sarkis & Lopes de Souza Jabbour et. al., 2019).

A CE requires movement away from excess and the 'take, use, dump' practice of a linear economy. This means that circularity prevents waste even from the business design stage and is inherently about systemicity. Materials are kept in use for as long as possible and, as a rule, natural systems are regenerated (Ellen MacArthur Foundation, 2017). When applied to the biological side of our food production, preparation, consumption and disposal systems, these actions give shape to what may be described as 'a circular food economy' (CfE). In practical terms, this contrasts with linear food enterprise where end-of-use organic material either gets dumped in the landfill or otherwise discarded.

This Study presents a circular food economy (CfE) not as an end in itself but as an outworking of food value awareness and collective, purposeful action which backs this up. As noted earlier, thinking and acting circular include waste prevention in the first place but also employing measures which turn any waste

into a resource. This is while ensuring that we are not compromising the very natural resources and biosphere that enable food production. It is worth saying upfront that there are undeniable systemic undertones in such collaborative efforts *against* waste and *for* food valorisation. This is because these processes involve not only resource exchange but vital information inter-change, managing exchange and feedback. They include various ways of people participation- sometimes representing households, businesses, organisations and institutions. With this in mind, the matter of supporting food SME transition to circular practice is a valid research issue. Some may even make the argument that it is an opportunity for ensuring ‘. . .equality and fairness in the UK food supply chain’ (Glover, 2017).

This qualitative Case Study investigates the topic in relation to helping SMEs in the hospitality food service sector (HaFS) to make their own business shift in the direction of circular enterprise. It addresses Glover’s apprehensions and also concerns expressed by other researchers; such as Colurcio, & Russospena (2013:651) in the introductory comment to this Section. In musical terms, I have chosen to describe this particular Study within the larger research melody about food waste and in this respect, I would say that it ventures beyond a tacet to offer a new note. . .

1.2 Food SMEs but HaFS they are. . .

The ‘new note’ presented here relates to examining cross-sector support for hospitality and food services. The topic is explored as broad-based, people cooperation for enabling circular uptake. I specify the latter in relation to designing out food waste in business models and a ‘waste to resource’ approach to managing meal preparation and, other catering processes. These activities require multiple stakeholders consciously promoting transformative enterprise, assessing roles, functional linkages, addressing logistics and added business value.

I would like to explain here that the term ‘food SMEs’ was much too wide a research focus for the modest limits of this Project. In reality, this list is not limited to the hospitality sector. The Reader should be aware that it also refers to enterprises such as: supermarkets and other retail outlets, food manufacturing,

small farming and agro-industries. Therefore, in the broad category of what might be termed a 'food SME', I decided to focus on the single grouping of these enterprises that also represent hospitality and food services (HaFS). For the purposes of this investigation, these HaFS may be defined as any restaurant or food enterprise which prepares meals or otherwise engages in food catering. In other words, this Study pertains to all aspects of OOH (out of home) cooking, any paid meal services for the general public or a particular audience. In some cases, these may include leisure services, accommodation or other hospitality catering provision (which explains the 'HaFS' acronym).

The Reader should also keep in mind that not all HaFS are SMEs. The discussion which follows in the literature review and beyond will spotlight these businesses and their composition. We should note that this is not only in obvious business terms. There is relational interplay bound up in the concept of hospitality. From a practical standpoint, the world of HaFS is a fast-paced, high demand arena of complexity and change. It is very much about pleasing the palates and the expectations of diverse customers. The challenge is to do so, while balancing the accounting books and business loyalties within the food supply chain and, across-sectors. This means that the overlapping of service ideals, client satisfaction and available resources (such as fresh food) is seminal to the HaFS context and also to the sector's prosperity. It is interesting that these activities represent underlying themes of plurality, people and collaboration. When they are all combined, they provide the research focus of this qualitative Case Study.

1.3 Research Purpose and Relevance

Based on what has been said so far, this Project has an instrumental purpose and a definite change agenda beyond current covid realities. Firstly, it acknowledges the 'Build Back Better' policy of both a post-Brexit and post-covid Britain- one that is open to innovation but intolerant of any resource wastage. Secondly, it leans towards advocacy and enabling regenerative enterprise among food SMEs. Thirdly, in speaking of its purpose, the intention is that HaFS within this SME grouping would be poised to reap savings, as a result of cutting

back on food waste. The aspiration is that HaFS would be able to flourish and to sustain business custom, over the long term. In other words, this Study is not about hasty change and short-term delivery.

The Study's cross-sector focus also feeds into ongoing dialogue about collaborative governance (Rubin, 2002; Kim & Darnall, 2015) as a strategy for fighting complex, 'wicked' problems. This factor re-emphasises the Study's significance for post-covid 19 recovery impacting smaller enterprises and also, the need for practical measures that enable business resilience. Then, there is the specific issue of post-covid reinforcement for struggling HaFS within this grouping.

Still on the note about collaborative governance, one overriding concern is that hospitality and food services (HaFS) within the SME sector are not left to pursue business transformation alone. Rather, vibrant connections and exchange (e.g.s. with other enterprises, councils/ government agencies and NGOs) would help to facilitate joined up support for doing their business differently. This title: *'We the People: Supporting Food SMEs towards a Circular Food Economy'* is probably a first hint about such alliance for impacting the food SME sector in the UK. For example, there is now opportunity to reach beyond the conventional sustainable supply chains and B2B networks, in order to advance 'resource efficient enterprise'. Sometimes taking action entails simplistic business change. It may be centred on: general management, in-house reliance or unilateral support from another sector.

However, this Study investigates the topic at hand as a human participation issue. It concerns *all* sectors and thus, fostering regenerative food enterprise and business engagement may help to trigger change, across all three sectors. In other words, by linking food SMEs with diverse stakeholders; their environment(s) and organic resources, the food waste story begins to take new shape. There is dynamic, sequential patterning to this shaping and the 'wicked' problem is revealed as also being deeply systemic.

Hence, this research is important because of its potential contribution to policy discussions about circular economy and SMEs in the food service sector. There

is a point of caution and a balancing act to consider here. Any national policy initiatives which are unsympathetic to the peculiar challenges of SME operations, would also be averse to their eventual sustainability. In view of all of the above, the findings from this research are also very relevant for the national post-covid milieu.

1.4 Research Question and Aim

As was stated earlier, food corporates currently dominate the food waste narrative and they have adopted a partnership approach to aid their business transition. However, Table 1 shows us that along with households and larger businesses (second only to manufacturing), HaFS make their contribution to the UK food waste mountain.

Table 1: An Overview of Food Waste Sources in the UK

UK food waste 2015

Food waste source	UK arising (tonnes)	Arising per person (kg)
Household waste, of which:	7,050,000⁷	108
LA collected food waste, of which:	4,900,000	75
<i>Residual waste</i>	<i>4,120,000</i>	<i>63</i>
<i>Organics collection</i>	<i>639,000</i>	<i>10</i>
<i>Other</i>	<i>140,000</i>	<i>2</i>
Disposed to sewer	1,640,000	25
Home composted	518,000	8
Supply chain waste, of which:	3,140,000	48
Retail	261,000	4
Manufacturing	1,850,000	28
HaFS	1,020,000	16
Total	10,200,000	156

Source: WRAP, 'Report: Courtauld Commitment 2025 food waste baseline for 2015'.

The aim of this research is therefore to examine how a cross-sector partnership approach might boost circular uptake among small and medium-sized enterprises. This is with the expectation that any effort towards regenerative

practice should translate as savings and therefore, help the business to thrive. With this in mind, the Study responds to a primary research question: *'How might cross-sector collaboration support food SMEs in moving towards a circular food economy (CfE)?'*. It should again be pointed out that this question simply relates to beating food waste. It does not pertain to other CfE action areas such as abolishing single use plastic in food and catering services.

1.5 Research Objectives

Moving on from the key question, three research objectives (ROs) further define the parameters of this Project and they specify the HaFS focus, among other food SMEs. These ROs stand out in the real-world SME context of juggling supply chains, staffing requirements, business operations and financial turnover. Additionally, there are also marketing and delivery modes impacting customers and the public at large. The ROs are applicable to three broad data relevance areas such as: organisational inter-relationship and engagement; communication & collective impact and; ethos & legacy. These focal areas will be re-introduced and discussed at greater length in the chapters on research design and findings. As the first research objective, it would be true to describe RO1 as strategic. This is because it had an evaluative function. It produced an assessment and was a base of enquiry for the remaining two objectives. These research objectives were:

RO 1: To assess business engagement and support for food SME action on food waste

RO 2: To assess how cross-sector collaboration might enable food SMEs to adopt CfE principles.

RO 3: To outline a relational circuitry for sustaining food SME adoption of CfE principles.

1.6 Personal rationale and motivation behind this Research

As a researcher, I appreciate Orlikowski and Baroudi's (1991:15) view about the motivation behind research because it resonates with the experience of writing this Study. Their stance is not only candid but pragmatic. They posit that;

'Researchers' prior assumptions, beliefs, values and interests always intervene to shape their investigations.' Saunders et. al. (2019:131) further inform us that this is a matter of axiology - having to do with ascribed values or value, expressed through researcher self-awareness and attention to any given ethical protocol. These investigators are also sympathetic to the importance of honing reflexivity skills when conducting research. They allow the researcher to process rationale, internal questions and basic assumptions. Additionally, these have a bearing not only on our choice of research topic but on how we conduct the exercise, manage and interpret any data.

This Study's anti-food waste, 'pro-SME' orientation is consistent with axiological argument because it takes an ethical position which is against waste but for inclusive business. I grew up in a home where wasting food was essentially a household felony. Parental messaging was that something creative could always be done with surplus or unwanted food and this included sharing with neighbours. Over the years, I developed both a practical and business interest in food catering, hospitality and eco-business (e.g., food-drying using solar technology). Some of these activities took place in formal international development settings affecting school feeding initiatives, environmental projects for income generation and, promoting community enterprise. Coming from this background, it is fair to say that this Study simply adds an academic dimension to already existing interests.

1.7 The Research Timeline and Writing Context for this Thesis

This Thesis is a story about the potential boost to SME action against food waste. The cooperative elements of the London TRiFOCAL Project (2016-2020) provided the case focus for this Study. Additional details about TRiFOCAL and how it was organized are presented in the next section.

Figure 1: Research Timeline

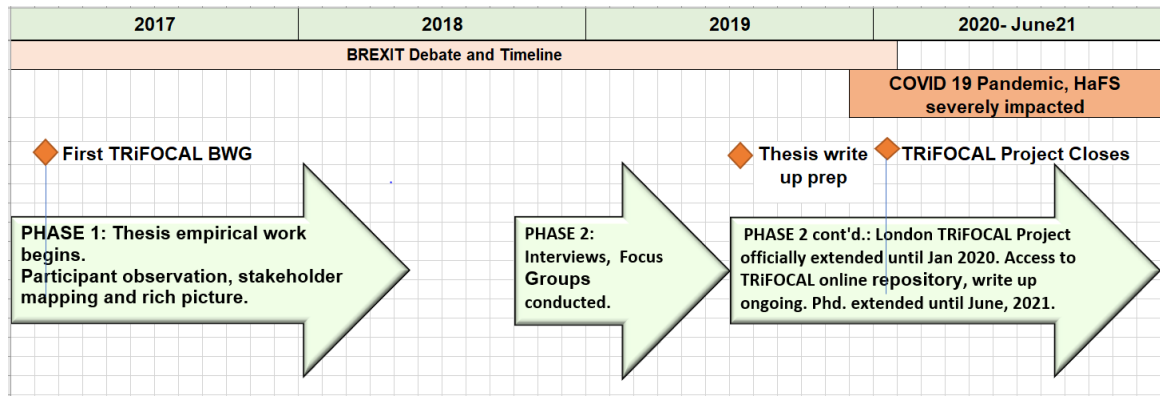


Figure 1 above shows that this research was conducted in 2 broad phases, as a part-time PhD. study programme. Appendix A summarises the original objectives and goals of the Study. Although not set up from the start of the TRiFOCAL project, this research ran parallel with most of the TRiFOCAL implementation schedule; between 2017-2020. This research timeline. was eventually extended in its final year. In any case, TRiFOCAL’s implementation timeframe was also extended. Despite its closure in January, 2020. I still continued to have access to TRiFOCAL’s programme activities. By the end of 2019, I had already started my write up and this access was very useful as it meant that I was able to revisit some of the online library material for public access. That repository had a host of documents that recorded the full series of TRiFOCAL’s activities).

The Phase 1 segment of research took place between the early part of 2017 and continued until May, 2018. The research question and objectives were formulated and refined during the first half of 2017. Participant Observation provided an excellent base for stakeholder mapping and assessment. It also allowed reflection about the level of engagement and backing for HaFS in the SME sector, in relation to the Study’s broad research themes. Participant observation continued at different intervals throughout the research journey and was sometimes facilitated by TRiFOCAL’s business working groups, seminars and workshops. The SSM Rich Picture technique was also utilized at this stage.

Phase 2 of the research got into full swing from about October 2018 and this second stage entailed a staggered spate of interviewing and focus groups which was followed by the write up. It was largely guided by my early findings from Phase 1 but also affected by the availability of respondents. By mid-2019, this

Case Study's empirical work came to an end, with 2 focus groups at a Summer workshop, that was hosted by the TRiFOCAL team.

The timeline for the field work and subsequent writing up took place during a period of incredible geo-political disruption for the UK. There was a lot of trepidation surrounding national business, international trade and global climate change. This was very evident in the media, fervent debates and national polls.

For example, over just three (3) years; there was phenomenal national transition which further underscored the urgency surrounding this Case Study's topic. As noted earlier, BREXIT was brewing. This was a time of great uncertainty for all UK businesses- especially so for any cash-strapped SMEs. In the final stages of writing, along came covid19 and its 'non-essential shops' (the majority of which are SMEs and many in the HaFS sector) still await release from national 'lockdown', as a result of covid19 restrictions. As with everyone else, these cumulative circumstances had a personal impact and, I was especially concerned about the severe fall out and business turbulence affecting HaFS. Specifically, this included some of the owner-managers, staff teams and other stakeholders that had contributed to this Case Study's progress.

In a nutshell, the past four years encapsulate '...a time like no other'. Yet, the prospect of potential business savings (from tackling food waste) still seems a compelling opportunity for HaFS within the SME grouping. It also confirms the importance of RO 3 - looking for a supportive circuitry of change, in the interest of their business continuation.

1.7.1 Introducing the London TRiFOCAL Project

In view of the above developments, the London TRiFOCAL Project was a timely enterprise. The acronym 'TRiFOCAL' stands for 'Transforming City FOod hAbits for Life'. This initiative made its debut in September, 2016 with €3.2 million EU funding to target healthy nutrition and sustainable consumption and by February 2017, the project's business working groups had started. Although there was an initial plan for a 3 year implementation timeframe (until 2019), this period was eventually extended through to January, 2020.

TRiFOCAL seemed a good fit for investigating this Case Study's research question: *'How might cross-sector collaboration support food SMEs in moving towards a circular food economy (CfE)?'* I will expand more about this in the Chapter on findings. For the time being, the Reader should note that this London-based project had a three-fold emphasis with wide-ranging appeal to food waste prevention across-sectors. Furthermore, apart from the more common 'whole chain' approach, this involved: householders, schools and their communities. This Project was also the first of its kind in pulling together three critical aims pertaining to food and daily lifestyle (see Figure 2 below).

Figure 2: The Three Action Areas of the London TRiFOCAL Project



Source: Collaborative Case Study: 'What have we done differently in TRiFOCAL to engage with businesses?' (2020), p.5.

These aims were: a) promoting healthy eating; b) reducing unavoidable food waste and; c) keeping food waste from the landfill (food redistribution schemes were important aspects of this). The two latter aims may be seen as demonstrating 'stock optimization' by increasing and or exhausting full value from available food resources. They resonate with circular practice as essential operational principles of a circular food economy (CfE). As a result of this, they are also very relevant to this Study.

As noted earlier, TRiFOCAL's primary objective was to keep discarded food from the landfill. According to a WRAP/TRiFOCAL release at the start of that Project, getting rid of discarded food (through general disposing or re-processing) was already costing London authorities approximately £50 million per annum. Other

contemporary findings revealed that about 1 in 6 meals in the food service sector was being thrown away. These statistics revealed the absence of efficiency budgeting on the part of Londoners, particularly since the annual purchasing cost of these meals totalled approximately £1.4 billion per year.¹

TRiFOCAL's workstreams involved deliberate engagement with schools, communities, corporate enterprises and other businesses. It should be pointed out that although food SMEs were not specified (based on size), arguably, this grouping could be expected among the mix of food services originally targeted for engagement and support. In short, TRiFOCAL's commitment to collaborate across-sectors for collective impact, definitely matched the research objectives of this Case Study research. This was especially since there was also clear commitment to the 'waste to resource' tenets of CE.

However, it is important to note that the cooperative emphasis of TRiFOCAL provides the actual case for this research. The information here is only meant to profile the Project within its larger context. Later in the document, there are other anecdotes about the London TRiFOCAL initiative. Since this research brought together a number of concepts in a different way, I have commented about special aspects in relation to: philosophical concepts, methodology and, of course, the more in-depth chapter on findings.

1.8 The Layout of this Thesis

I thought it was important to explain the layout of the text and reasons for how it is organised. First of all, the Reader will discover the document is replete with acronyms. This was unavoidable. Many of the organisations presented in this Study have abbreviated titles and sometimes these are already formal acronyms. 'WRAP' and 'TRiFOCAL' are good examples of these condensed titles that are littered throughout the text. For the sake of readability, I have added a Glossary at the start of the document. Additionally, so as not to complicate reading (and to avoid any 'brain fog'), I sometimes refer to various terms, spelling out their full meaning, while also attaching the particular acronym.

¹ See: https://www.wrap.org.uk/TRiFOCAL_PR

As the subject matter of dealing with food waste, the food system (and systemic thinking on the whole) lends itself to demonstration, wherever appropriate, I have included tables, diagrams and figures. The majority of these are in the first part of the document and contribute to introducing the Study's main themes. The intention is to help the Reader to visually connect with the topic or to revisit, with even deeper understanding of the discussion.

In keeping with the required thesis format, I have arranged the document across 7 Chapters, all leading up to the findings in the latter part of the document and reflections about policy implications. However, because there is an annotated style to this Case Study which meant that interpreting, reflecting and coding findings as the research progressed. Therefore, I sometimes report on activities in more than one Section- each with a different focus. One example of this is reference to the literature. I continued reading during the full length of the Study. This was because over the course of the journey, the subject area became even more topical. The writing material increased and media attention also went up. For the purposes of quick reference, an overview of each Chapter now follows below.

1.8.1 Chapter 2: The Broad Picture and the Big, Big Players

Following on from this thesis introduction, this second Chapter provides geo-political background to the research. There is also important statistical and other overview about green policy changes that are relevant to the UK. I take the opportunity to note the big players in the food waste narrative and the importance of urgent attention to supporting smaller enterprises. This Chapter also comments on the special grouping of London HaFS that are SMEs.

1.8.2 Chapter 3: More Food for Thought': A Review of the Literature

This literature review maps out the original focus of review questions that helped in moulding this Case Study research. It is written in 2 Sections. It starts out with an examination of the key concepts related to the topic and there is discussion around how these interface and develop in the literature. This includes a

spectrum of concepts such as: responsible business, resource efficiency, food waste, collective impact and CE. The second part of the review provides a background to earlier information. It tells the story about the review journey and allows some reflection about the nature of the material. Reference is made to a large, shambolic mass of literature that has been categorized into 3 areas- policy, NGO and academia. This contribution from the literature is the first major finding of the research.

1.8.3 Chapter 4: ‘business *within* Community – not Business and community’

This Section is an extensive discussion about the philosophy of knowledge in relation to the Study’s topic. It introduces Critical Systems Thinking against the backdrop of a meta-framework for the research. That outline combines Critical Realism with Systemic Thinking and uses this lens for viewing a proposed socio-ontology for HaFS dealing with food waste. As such, it is also an interpretation of the Study’s main concepts and their inter-relationships. This is particularly as these relate to HaFS in the SME grouping. The Chapter extends its discussion to the Study’s philosophical positioning as; ‘business *within* Community – not Business and community’. This is also linked to the rationale behind the multiple concept approach of the research and the call for a socio-ontology.

1.8.4 Chapter 5: ‘Juggling Plurality and Complexity’: Research strategy and multi-method design

The Case Study’s strategy as qualitative research is presented here, based on insights from the literature and the Chapter on philosophy. The approach taken is consistent with the methodological pluralism of Critical Systems Thinking. I used a staggered, multi-method research design which merges soft-OR techniques including: stakeholder mapping and Rich Picture. Additionally, participant observation, 8 semi-structured interviews and 2 focus groups produced a large data corpus. The rationale for the Case Study strategy and choice of methods and research design are thoroughly discussed. The data’s categorizing and

subsequent thematic coding were aided by abstraction. There was also some input from Leximancer software.

1.8.5 Chapter 6: Food Waste. . .A Hot Topic for Collaborative Action: Discussion on Findings

In presenting the findings, this Section examines some common themes across the data. These were identified by using a framework matrix that was borrowed from the family of thematic coding. In responding to the Case Study's main research question, features each data category. It also responds to the basic question of ' . . what does the *collective* data say?'

1.8.6 Chapter 7: 'Opening up Side-Doors': Conclusion'

In this conclusion segment, I share thoughts about the implications for national policy and the practicalities of change for HaFS that are SMEs. These can help to deliver benefits. An argument is made for policy measures which hinge on the concept of Food Citizenship. This is in view of some strengthened food redistribution networks and HaFS business innovations that are progressing, by stamping out food waste. This Chapter also reflects on the London TRiFOCAL Project as a high-level collaborative venture. I look at its legacy and contribution to non-formal business engagement and to wider public awareness about UK food security. Finally, I examine some aspects of covid 19's impact on HaFS and food waste. This last part is hopeful as it outlines some circuitries of change which are helping some HaFs to adopt CfE principles. This is in keeping with RO 3.

CHAPTER 2 The Broad Picture and the Big, Big Players

'Big inefficiencies suggest big savings opportunities' (Lipinski. Hanson et. al., 2013:2)

2.1 Summary

This Chapter provides the geo-political setting and background information about the topic. It also introduces the London TRiFOCAL Project as the context for this Case Study. The idea behind this Section is to highlight the significance of policy and other developments regarding tackling food waste as a business savings issue. The transition from linear to more regenerative enterprise is central to this business case for combatting waste. Food corporates are acknowledging their need for the requisite support to push ahead with a CfE mandate. It seems logical that the viability of smaller businesses would be also at stake. This is a basis for urgency regarding business support for these smaller food enterprises.

2.2 The Broad Picture

When I first started this research, the global statistics for food waste were mind-blowing. There seemed to be ample space for multi-stakeholder collaborations against business waste but it was unclear where food SMEs fitted into this picture. According to the FAO (2011; 2015 in WRAP & WRI, 2019:1), one third of all food produced for human consumption was squandered, at a phenomenal economic cost of \$940 billion annually. By any standard, these are staggering figures but they still stop short of other financial outlays and costs (e.g., socio-political and environmental) associated with the so-called 'triple bottom line'. Moreover, the literature commentary about this broad picture and how to address it was mostly skewed towards the agriculture sector and the corporate food production side of business. Admittedly, there was also some writing about applying regenerative practice to this arena (Stuchtey & Rossé in Ellen MacArthur Foundation, 2016: 50-61) but the concentration still seemed to be at the macro level of supply chains and the 'farm to fork' progression of the food system.

Also, in terms of this writing, there was not much interest in the speciality areas of SME food preparation and catering in relation to beating resource waste, by adopting circular practice. In terms of priority areas, these topics were further along the food delivery chain and the related academic research line-ups. At

least, this seemed to be the state of affairs with respect to food SMEs and particularly for those in hospitality services in the UK. We should note that this was despite the fact that these activities mirrored the everyday operational challenges for many HaFS on our high streets. In short, this Study's unique combination of these multiple concepts did not appear to be a research priority.

Rather, in speaking of issues that intersect with business scale and other variables, the food waste and evolving CE narrative was dominated by corporate food giants (Weetman, 2017:145). As already noted above, it was certainly evident at the global level where food corporations were gaining international status as big players. They were also deliberately moving beyond the established construct of corporate social responsibility (CSR), towards the 'waste to resource' measures of a circular economy. These efforts were surfacing at the corporate programme level. For example, a recent 12.3 Champions Report informs us:

'At least 20 percent of the world's 50 largest food companies— including Aramark, Danone, Kellogg Company, Kroger, Nestlé, Sodexo, Tesco, Unilever, and Walmart—have established food loss and waste reduction programmes. . . .'²

This union of business awareness and preparedness did not appear to be replicated in the operations of already struggling restaurants and small food outlets on our high streets.

With respect to the UK national figures, food waste estimation (including inedible food waste) was around 10 million tonnes valuing around £19 billion annually (WRAP, 2020). According to this same source and earlier agency reports in 2015, the numbers for hospitality and food services (HaFS) were disturbing. Allegedly, these contributed about 1 million tons of annual waste to the UK landfill (see Table 1). Equally shocking was the claim that 75% of all this discarded food was still edible. WRAP further noted that these statistics represent an estimated monetary value of about £2.9 billion vaporizing annually. Since SMEs represent over 99 percent of the UK private sector (Ward, 2021: 5), it is safe to assume that many of these food businesses were non-corporates and, that their financial loss was likely bound up in these sectoral figures.

² See SDG Target 12.3 on Food Loss and Waste: 2018 Progress Report, p.21.

The hospitality/ catering industry is heavily dependent on both preserved and fresh produce. Technically, the alarming figures at Table 1 (presented earlier) belong to the wide category of 'post-harvesting' organic waste and loss. It is interesting that in this matrix, HaFS are clearly demarcated and also their contribution to the UK's business waste. When it comes to HaFS, we might broadly define such waste as 'associated with food preparation and catering services' (WRAP, 2013, 2017). In terms of actual everyday restaurant workload, one can assume that this would include operations such as: procurement of food stock, storage, preparation, sale to customers. Also, if taking a more detailed approach, we really should not forget the post-sale disposal of leftovers and food waste within the HaFS grouping.

In terms of generating waste, we might consider that the above activities could be determined by a range of factors. These include the whims and fancies of customers about their food preferences; the level of interest and commitment on the part of HaFS owner-managers and; any protocols that are expected but ignored by catering staff teams. Then, there are external factors surrounding other labour linked to the wider food supply chain. These impact on how food waste is avoided or otherwise managed. So, for example, these would include the assigned tasks of employee(s) on farms and how waste is prevented; the approaches of commercial food enterprise(s) and other stakeholder agencies or institutions.

I have taken this fairly inclusive style because it brings into view some of the business procedures expected in food preparation and catering. These are essentially processes requiring some aspect of individual employee responsibility, coordination and/ or people management. The implication here is that consideration should be given not only to how waste is discarded by a particular kitchen staff team but also, to the attitudes and behaviours of HaFS clientele about their own meal choices and dumping their leftovers and other waste. It is also worth noting that on the whole (whether linked to HaFS or not), food resources are time-limited and largely defined by seasonal availability and consumption. Obviously, according to the natural order of things, food is already a highly perishable commodity and therefore, it can 'go off'. This means that by

over-ordering of stock, poor storage or just not paying attention to 'sell-by' (or to 'use-by') dates, ultimately, dumping food is another way of throwing away money.

Lipinski, Hanson et. al.(2013:2) advise about the importance of monitoring expenditure linked to discarding food resources. They summarize their views with a more positive twist; 'Big inefficiencies suggest big savings opportunities'. Table 1 is an overview of food waste categories. This is laid out according to tonnage but it also shows us how the waste is represented at an individual level. We should note immediately that the way in which these figures are laid out indicates two levels of responsibility. These are the level of the business supply chain/ household unit and, the individual level. Yet, even if the statistics at Table 1 were exaggerated, at the very least, they portray food waste as a 'wicked' test for the UK, with complex human management challenges. With this in mind, I would like to emphasize the human (and its innately social) component as a distinct focus of this Study. The Reader should therefore note that unlike other food waste investigation, the fine details of material food waste and waste aversion techniques are not the central interest of this research.

2.3 The Big, Big Players in the Foreground

In view of the above discussion, an important contribution to this Study's setting was the fresh scoop about the business case for combatting food waste. The research responds to this hopeful news about potential business savings, from fighting endemic food waste (Cueller & Webber, 2010; Cloke, 2013; Gille, 2013; Hanson & Mitchell 2017). The information is reassuring for owner-managers in the HaFS contingent of smaller enterprises, during the current rough economic forecasts. For example, a recent UNSDG 12.3 Champions Report announced an average benefit-cost ratio of 7:1 from restaurant investments that address food waste (WRAP & WRI, 2019). This business case approximates about £10,000 per outlet, *if reduction of food waste is taken seriously* and measurement and other required changes are actually put in place (WRAP, 2013; TRIFOCAL, 2017).

2.3.1 What if people were convinced to reduce food waste through the circular economy?

As we can see, there are definite benefits to avoiding food waste. Practicing the waste to resource principles of a circular economy is advantageous not just for business but also in our homes. With further uptake of circular practice, surplus food and organic material could be harnessed, re-purposed and even redistributed to help feed hungry people. These measures are consistent with CE valorisation of excess organic waste. It is based on three main 'green' principles, beginning with designing out waste and pollution.

Yet, principles of any kind (whether 'green' or not) are useless without people who would implement them in a coordinated way. In other words, the knowledge and information exchange about preventing food waste first hinges on individual awareness and behaviour. This 'people factor' may be expressed through a HaFS owner/ manager, a kitchen staff team member or even a customer with an orientation for doing business which does not harm the environment. In terms of SME employer interest in such green issues, the statistics in Table 1 show that there is still cause for some concern. For example, a recent Longitudinal Small Business Survey (Department of Business Energy & Industrial Strategy, 2020:1) reported that 24 % of the SME owner/ managers believed ' . . . that offering solutions to environmental problems like climate change and food waste was of high importance to them'. Notably, this included 36 % of employers in the HaFS sub-group of SMEs. It might indicate their potential willingness to collaborate with other stakeholders in order for change to happen.

At the larger level, the 'people factor' may also be seen in connecting food SME representatives to the appropriate change agency Council, NGO or other community partners. This is assuming that these stakeholders address surplus food waste in their neighbourhoods and extended supply chains. These are important areas in the business transformation agenda. There are implications here for how we go about initiating and supporting change when this involves multiple firms and other stakeholders.

From this perspective, the matter of supporting HaFS participation in food waste prevention (as 'movement' towards participation in circular business) is neither

linear nor singular in its application. It is a multi-faceted issue about an endemic waste problem. Furthermore, in terms of change management, it is a mighty complex affair. This is because of the human factors involved such as: alerting owner-managers, chefs and other food SME staff about the need for transition in their business operations and; empowering the capacity for this change (e.g., in terms of kitchen training). There is also opportunity for using incentives and supporting business engagement with customers, amongst partners in the wider supply chains. Overall, this would promote business and other organizational networking around the HaFS/ food waste issue.

For example, in looking closer at the individual and institutional aspects of managing this process, there may be critical assumptions and concerns among stakeholders about: shared values, collective purpose, communal trust, knowledge exchange and openness to business innovation. It is precisely the intersection of these so-called 'soft' resources required for cross-sector partnership, that form the crux of this Study's investigation. This is the domain of change which I examine in the literature review that follows and also other discussion about a related business philosophy. As we shall see, since these formed a critical part of the TRiFOCAL collective impact approach, they provided the field of investigation for this qualitative research. In some respects, TRiFOCAL became a space for investigating what might happen if people acted on reducing food waste because of exposure to CE principles.

Our discussion so far suggests a problem situation of dynamic complexity, requiring joined up working, across various stakeholders and sector responsibilities. It forms the wider setting for the research topic of supporting HaFS participation in tackling their business food waste. Once again, we might note the latent human cooperative elements for managing change that involves business and other community stakeholders. Even if such sentiments are present at an individual level, they may not necessarily be represented at the HaFS level. In terms of organizational change, while this factor is significant for cross-sector institutional power, it contrasts with the influence and power of a single food SME.

2.4 Big Policy Challenges and Background Rationale

This Study's aims and rationale were also influenced by a shifting UK policy environment and examples of public-private partnership (PPP). The research journey began and ended during a historic period and, a turbulent phase of uncertainty for the UK. As noted earlier, these circumstances heavily impacted the HaFS sector and small business as a whole. There were ubiquitous BREXIT debates revealing deep divisions in concern about immigration, trading arrangements, fishing and food standards (*vis-à-vis* the rest of Europe). Meanwhile, the national ministry for the environment and food affairs (DEFRA) was calling for important changes in the UK food system. There were also conversations about how this related to food security green business and the environment.

It is fair to state that the SME contingent were not necessarily quiet about some of these issues either. As far back as 2008, the Federation of Small Businesses (FSB) made the sustainability linkage in its publication entitled; 'Social and Environmental Responsibility and the Small Business Owner'. Four years later, this document was followed up by; 'The Waste Review - The Small Business Case' and, around that time, the HAFSA also specified 'Taking Action on Waste'. Its final report was published in 2017.

The food waste prevention issue and policy discussions about circular economy (CE) were also becoming "en vogue", so that by 2018, the UK had appointed its first 'FoodWaste Tsar'. Then, between 2018- 2020, there were an impressive reel-out of CE policies. These were further elaborated by mid- 2020 in a 'Circular Economy Package Policy Statement' (CEP). In the wider scheme of UK food enterprise, there was practical leadership through the Courtauld Commitment referenced in Figure 3.

Figure 3: Food Corporates in cross-sector alliance through the Courtauld 2025 Commitment



Source: WRAP (2020).

Since 2015, there has been significant support for this voluntary Agreement which advocates drastic cut back on food waste. The revised Commitment (2025) now facilitates the UK's global obligations to the United Nations Sustainable Development Goal (UNSDG) 12.3. and it boasts over 150 signatories (WRAP, 2020). Courtauld 2025 features a myriad of food corporates, other establishments and networks. A small segment of the Agreement's display of cross chain alliances is presented at Figure 3 above. We should especially note the obvious corporate representation within the HaFS sector that is portrayed here.

2.5 Brief Outline of HaFS in London & the Food Waste Problem

The geographical focus for this research is London; our nation's Capital city, with its extensive range of food SMEs in the HaFS sector. The high streets of city boroughs and neighbourhoods are replete with food enterprises. A closer look would reveal that this diverse grouping of businesses spans restaurants, cafés, clubs, quick service outlets, catering establishments and, the ubiquitous British pub. Until 2018, London boasted almost 10,000 of these enterprises within the food SME grouping (Office for National Statistics, 2019). However, at the time of

writing, (under covid 19 restrictions) it is very likely that this figure might have been drastically reduced.

According to LWARB, London's Circular Economy Route Map (2017), over 8 million tonnes of food is consumed in London per year by the city's 8.6 million residents and, around one million daily commuters. The Route Map (2017:28) further points out that the: ' . . . Cost of food waste collections are too much for small hospitality businesses. Overall, these statistics indicate there is opportunity for HaFS to enhance enterprise capacity, networking and cooperation to support business change, while making savings. This is based on the understanding that in any case, food SMEs and other smaller food enterprises have limited business capacities. They sometimes struggle financially to get rid (appropriately) of their organic, packaging and other waste material. It is logical to conclude that these enterprises would need support, in order to pursue a green agenda by adopting more 'waste to resource' practice.

2.6 Summary Conclusion

We can see that collective action to beat food waste has been progressing at a steady pace over the past two decades. These changes are taking place within the setting of a new approach to doing business, while not doing harm to the environment. We can also see that the geo-political thrust towards a circular food economy (CfE) is clearly attentive to the macro food system and to big business. In keeping with this policy, food corporates are also implementing operational models which gain support from other actors and from working across-sectors. This research is about similar strategy and support for smaller food businesses.

CHAPTER 3 More Food for Thought’: A Review of the Literature’

‘If people cannot see meaning beyond material accumulation, even a prosperous and efficient economy lacks an ultimate purpose’ (Malloch & Mamorsky,2013).

3.1 Summary

This review lays out and organises the literature about the research topic. The Chapter should be read as having broad reporting functions, in two parts. Firstly, it opens up with a series of discussions about key concepts which are relevant to resource efficient business themes of the Study. There is detailing about how the literature approaches these ideas. The latter part of this Chapter outlines the review strategy. It tells the story about the wide-ranging nature of the literature and the journey. This second part explains the original rationale behind the research, how the material was first discovered and handled. In so doing, it highlights tensions around the ‘missing gaps’ within the literature which influenced subsequent research. The review is therefore extensive but the story around it is an important one. This is not only because it summarises the research journey but it organises key concepts, despite a mass of widely spread literature.

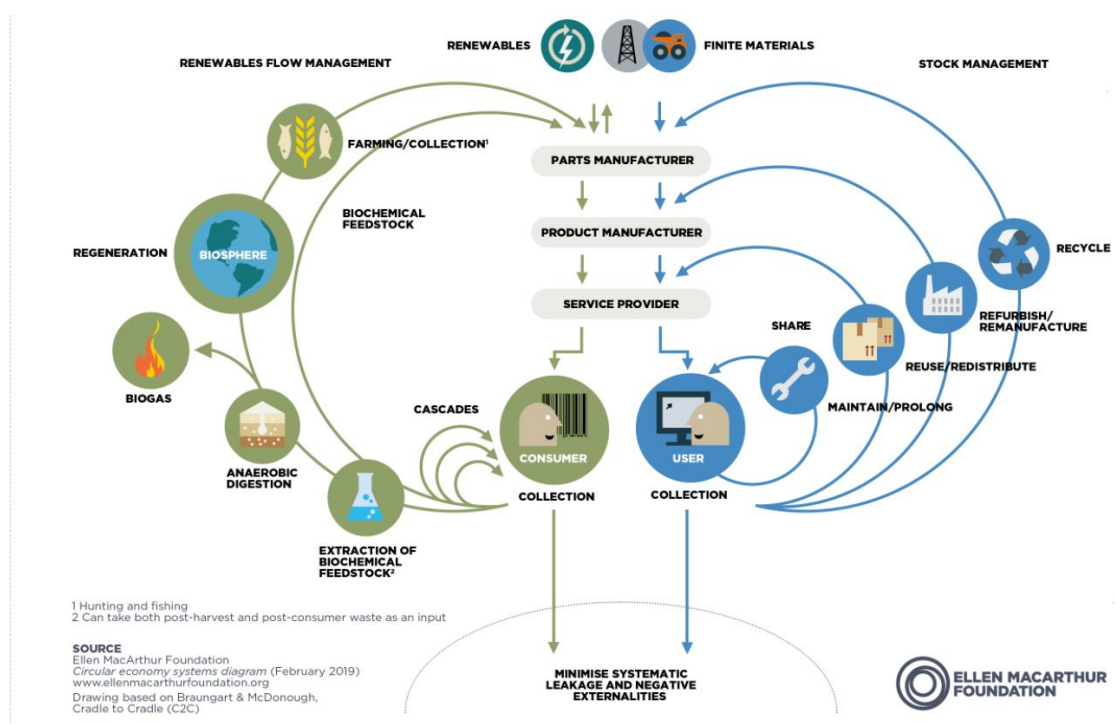
3.2 Unpacking the Concept of a Circular Economy (CE)

You may remember that I outlined the main elements of a Circular Economy earlier in my introduction. This Section now provides further details about the concept. According to Webster (2015:16), a Circular Economy ‘. . .is one which is restorative by design and, which helps to keep products, components and materials at their highest utility and value at all times’. The key principles of circularity are: to preserve and enhance natural capital; to optimize resource yields and; to foster system effectiveness within the supply chain . The idea is that wherever possible, resource value may be enhanced and materials are either regenerated or restored (Braungart & McDonough, 2009; Romero & Molina, 2012; Webster, 2015).

In other words, CE seeks to preserve the highest value of goods and materials for the longest period of the business value chain (See Diagram 1). This CE ‘Butterfly’ presents a setting in which food, associated organic waste and biological processes are represented by the green, regenerative aspects on the left side. These *renewable* flows entail a series of resource inputs, outputs and cyclical cascades involving (but not limited to) food consumption and the discarding of waste by humans. In contrast, the right side of the ‘Butterfly’ outlines *finite* materials used in manufacturing, related technical processes and production flows.

Diagram 1: The Circular Economy ‘Butterfly’

(Source: The Ellen Mac Arthur Foundation)



(Source: The Ellen Mac Arthur Foundation)

There is a growing body of literature calling for the seismic shift from a linear business approach of ‘take, use, dispose’, towards regenerative goals, where waste is actually deemed as a resource (Kraaijenhagen, van Oppen, & Bocken, 2016; Lacy & Rutqvist, 2017; Ruggieri et. al., 2016., Ormazabal et. al., 2018;

Huysman et.al., 2016; Prieto-Sandoval et. al 2017). In recent times, some of this work is being directed to SMEs (Ormazabal et. al., 2018; Pamfilie et. al., 2018). There is also an emphasis on purposeful business design, innovation and modelling so that circular business transcends mere reduction, recycling and re-use (Parry, 2012, Howarth & Fredericks, 2012, Tiefenbacher & Bulson, 2015).

This concept of material flow analysis (MFA) is linked to this idea of an operational CE with its feedback and cascading mechanisms. MFA finds its conceptual roots in industrial ecology. It suggests capacity to measure and to rate resource movement within defined space and time (Brunner & Rechberger, 2003 in Papagyropoulou et.al, 2016). Camilleri (2018:11) also looks at this issue of material flows. He views it as a 'closing the loop' opportunity and it is interesting that he is fully aware of the potential for business savings. In this respect Camilleri informs us: ' The circular economy approach involves developing closed loop systems that avoid waste and resource depletion as small improvements in eco-design, waste prevention and waste reuse can bring net savings to business and industry. Hence, this concept focuses on the redesign of manufacturing and service systems.'

At first conceptual wording and definitions about CE might hide its distinctives as a concept and, how these relate to other green jargon. In looking at the range of resource efficiency lingo, Katharine Weetman (2017:29) provides us with an important difference. She instructs that CE builds significantly on what has gone before since: 'The circular economy approach is supported by approaches based on resource- or eco-efficiency, sustainability, corporate social responsibility (CSR), the triple bottom line and so on. . .'. Weetman then makes an essential point that was integral to this review and the eventual direction of this research Study ' . . . but these are *not as systems-focused* and can probably be classed as encouraging strategies that are 'less bad', rather than 'more good'. Weetman's comments are very significant in that they provide an early hint about competing tensions in the literature surrounding CE and, other interpretations of how to do resource efficient enterprise. Most of all, Weetman is emphasising here that systemic thinking and attention to detail cannot be ignored if we are serious

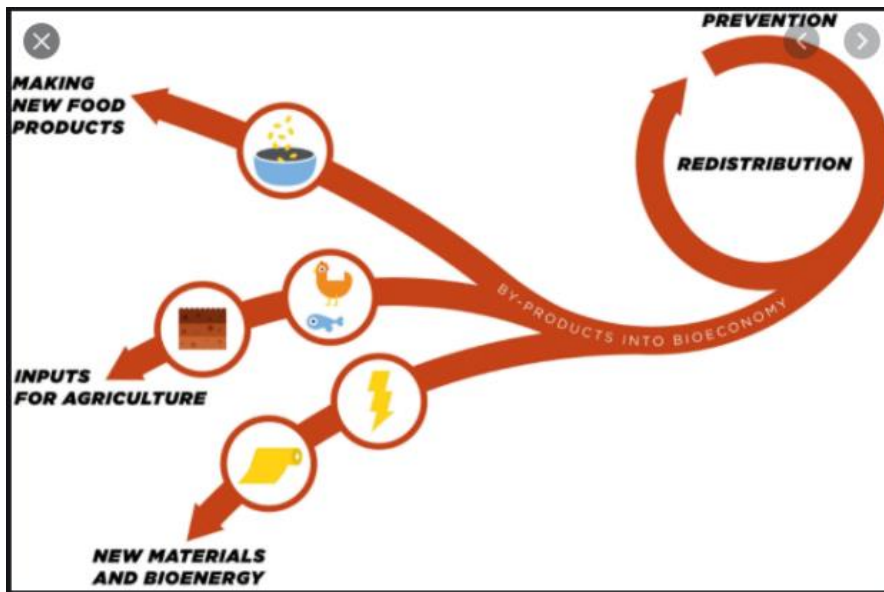
about strategising for change. When considering HaFS within the SME domain, these are also provocative assumptions about a methodology for business change. Weetman's comments further confirms the important function of systemic thinking, as proposed by this Study.

3.2.1 Knowledge and Tools for achieving a Circular Economy

At the same time, much of the literature reports on concept. At least there is still an interest in business application and the need for innovation. These are identified as crucial for enabling transition and fresh modelling. When referencing Mexico, Aranda (2018) points out the innovative implications of the CE concept. This is regarding business strategy and its relevance for enterprise re-design We should note that Aranda was not concerned about catering and food resources. Yet, she researcher stresses the importance of owning local contexts and awareness of indigenous knowledge, in order to support business transition.

The point to be made is that these are rich elements for helping businesses to make the shift to a different way of operating. Aranda (2018:5) further argues that: 'Circular design strives for an ideal state of cradle to cradle performance through innovative solutions, technological advances and law enforcement which will be achievable in time if the required context is finally achieved. . .For Mexican designers to start working within this innovative circular approach, and specifically, within a technical cycle strategic approach, they would have to analyse present and prognosed Mexican context, local materials state of the art and the 4 Rs. . .' It would be interesting to see how local ownership of information and practical design could be applied to HaFS within the SME segment of businesses in the UK. This is particularly if such factors could be aligned with RO 3.

Diagram 2: Food Material Flows of the Food System



Source: The Ellen Mac Arthur Foundation

3.3 The Concept of a CfE

The food valorisation principles of a CfE find their source in the teachings of a Circular Economy. This means that a CfE may be defined as a restorative approach to interacting with the food system, on the part of business and economics. As such, a CfE would not be limited to the confines of daily operation of food businesses. It concerns the wider ambit of how the biological processes which sustain the food system, how food and related organic materials are valued and handled. The implication here is that everyone eats and therefore, everyone has a role to play.

Diagram 2 above outlines the material flows of the food system, explained as organic by-products which contribute towards the bio-economy. Of course, organic matter is biodegradable and this process feeds into the natural order of life. Therefore, CfE consideration on the part of food business personnel would be grounded in how the delivery of food services, actually impact this natural order. It would also include responsibility for the appropriate ordering and disposal of waste.

When defining a system as a group of connected elements within their own environment, Barijugh (2016:11) recommends deconstructing the food system in

order to first understand it. I am not taking that stance. Rather, I propose systemic thinking. This requires at least mental construction or visual representation of the 'real world' points of contact. Therefore, we should note that according to the Food Waste Hierarchy in Diagram 3, the notion of a CfE requires prevention as a starting point for addressing food waste. The demand is that we stop throwing away food in the first place. Furthermore, the hierarchy implies that there is a myriad of ways by which we can recycle and redirect organic waste.

There are other resource management concerns surrounding CfE business transition that are not only about food as a resource but concern acquiring, preparing and dealing with surplus food. For example, in HaF settings, food packaging and meal delivery (e.g., 'doggy bags' and other 'take-away' parcelling) to customers would fall into this bracket. There are also other factors such as: food storage, redistribution, water and electricity usage, transportation, logistics and also reverse logistics which come under the heading of setting up a more sustainable food supply chain (Howarth & Fredericks, 2012; Eriksson, 2015).

It makes sense that food waste redistribution to feed hungry individuals, communities and animals would be a first consideration as the most preferred option. Only then is this followed through (in descending order), progressing to recycling and recovery measures, before landfill disposal.

DIAGRAM 3: The Food Waste Hierarchy



(Source: WRAP, 2012)

There is also a social, institutional aspect to a CfE. For example, community organisations supporting food surplus redistribution, schools and other educational institutions representing educational and health sectors are key stakeholders in the above process. From this viewpoint, we can see that the philosophical ‘waste to resource’ tenets of a CfE and, urgency for so-called sustainable business are potential rudiments of a ‘peoples’ movement. The philosophical thread connects food, efficiency and civic activism and is symbolized in this Study’s title. As an ideal it is already gathering considered attention from other researchers (Mustafa, et. al., 2008; Laughton, 2017).

At this stage, we may refer to Lawson’s (2006) perspective on heterodox economics and its dependence on some form of social analysis. This inclusion is usually exempt from the mathematical deduction and reductionism of ‘orthodox’ economics. It is an interesting argument since in any case, CE principles are definitely removed from the more traditional canon of macro-economics and linear thinking. Hence, by explaining ontology as enquiry into the structure of reality, Lawson (2006: 493) takes on further mileage by stating emphatically that ‘. . .the essence of heterodox opposition is ontological in nature’.

Therefore, we may conclude that the mission of a CfE and its complex organisational management requirements may also be determined along these lines- rooted in a *heterodox* ontological position, which offers a different way of doing business. It is worth pointing out that this stance about *both* food resource *and* organisational management is now fast becoming mainstream.

3.3.1 The Concept of Food Waste

Food waste is sometimes referred to as ‘the mother of all systemic problems.’ The idea of food waste as basic loss (in production or preparation) or deliberate discarding food is referenced throughout the food waste literature. This Study reveals a mass of international policy documents and academic literature in which food waste and the skewed over consumption of food resources, are considered as a huge global issue.

It has been described by a high level global committee as ‘. . . a decrease, at all stages of the food chain from harvest to consumption, in mass, *of food that was originally intended for human consumption, regardless of the cause.*’³

The literature on food waste reveals a focus on quantitative waste audits, technical and bio-chemical features (Lee et al. 2013). Overall, there are a range of metrics and contextual approaches to defining food waste (Garcia-Garcia et.al. 2019) but not much emphasis is given to examining the philosophy that nurtures them, beyond mere references to ‘culture’. Some research writing present food waste in a global, empirical context (World Food Security, 2014; Hassan, 2015). Others examine food waste within the confines of household waste (Van der Werf, Seabrooke, & Gilliland, 2019). Yang, Bao, & Hui Xhe, (2019) provide us with more contemporary information. This is with country specificity and sectoral relevance to HaFS in China, while Heikkilä, et. al., (2016) comment on the subject in Finland.

There are also tensions in the literature about the north/ south debate surrounding the food waste problem. Some researchers are keen to

³ High Level Panel of Experts (HLPE), 2014 ‘Food Losses and Waste in the context of sustainable food systems’. A Report from the Committee on World Food Security, Rome, 2014

acknowledge and to point these out (Garcia-Garcia, Woolley & Rahimafard, 2015; Hassan, 2015).

The food waste problem is also a serious issue for the UK and the annual food waste bill is exorbitant. Moreover, food and other SMEs struggle to follow through with Council and other regulations since business waste disposal could be very expensive. Diagram 4 reveals sobering figures. It also pinpoints where HaFS are contributing to this scandal as an enterprise group.

Diagram 4: Figures on Food Waste in the UK

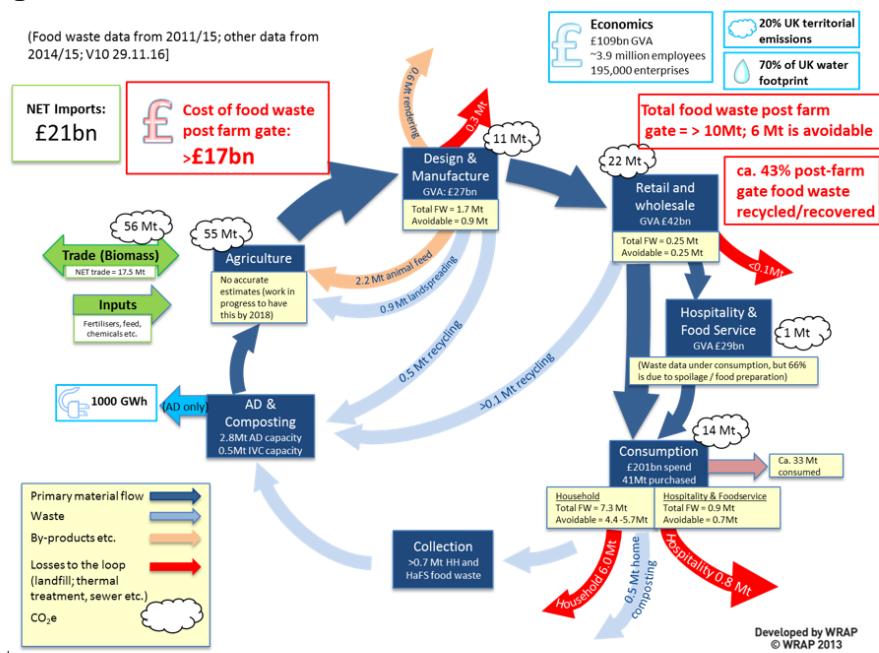


Table 1 Summary of what is known about food waste and related material arisings in the UK, and the treatment and disposal routes of these (See notes for further detail; food waste data from 2011/15; food surplus data from 2015; table updated January 2017)

Source: Estimates of Food Surplus and Waste Arising in the UK, WRAP, (2017).

Generally speaking, food waste may be categorized; as ‘avoidable’ (such as ‘leftovers’ and restaurant plate waste, food that was simply allowed to go bad etc.) and ‘unavoidable’ food waste. The latter refers to what might not usually be considered ‘edible’ (such as: peels, skins, shells, bones etc.). One should also note the issue of food losses taking place along the food supply chain. This may happen because of spillage, over production leading to gluts, poor harvesting and storage and losses attributed to processing techniques (e.g., washing and peeling).

Needless to say, there is a broad categorization of food waste regarding both vegetable and animal commodities and their by-products. There is little attention to the socio/ cultural aspects of waste flow (Papargyropoulou et. al, 2016). Since information exchange and collaborative working are important dimensions of social interaction, there is clearly an imbalance in our approach to addressing the food waste problem.

There are two basic points here which highlight the food waste challenge to sustainable living and business. Firstly, it implies the existence of multiple 'actors' involving business and rest of community. Secondly, it suggests a measure of collective responsibility of these same actors -at least in attempting to bring about change. Therefore, whether involving households and/ or businesses, there is a need for practical response and modelling at two levels. These are externally; including sectors in community and internally; within enterprise itself, along the supply chain. For a start, designing against food waste in business operations may include viewing scraps and leftovers as a resource; using it to feed hungry people or as biomass fertilizer for animals.

There are other concerns about leftover food scraps and neglected waste heaps. These entice rodents threaten public health and create problems for households, businesses and the rest of society. The high perishability of food resources also makes the fall-out a severe one for food SMEs (Shokri, Oglethorpe & Nabhani, 2014:1001). Smaller food businesses are usually more hardpressed regarding cashflow for procurement of stock and required storage. In short, wastage and sloppy disposal of food could lead to an even greater environmental dilemma which then puts a strain on limited landfill space in many countries.

Therefore, when examining the systemic nature of the food waste problem, business challenges for HaFs that are SMEs also come into view. Although Shokri, Ogelthorpe and Nabhani, 2014: 1011) approach the problem within the larger context of 'six sigma' design, quality management of food distribution and supply chains, they conclude there is already a 'research gap' surrounding food SMEs. Hence, it is fitting that a call is being made for a paradigm shift-away from the take, use dispose' linear disregard for food. As a result of the complex nature

of the problem, this 'call' implies the need for widespread cooperation and organizational management at every level of business and community. Hence, it is a rallying point which echoes this Study's purpose.

In summarizing all these considerations, I have opted for a wide categorization of food waste in this Study, simply because examination of the organic waste is not the primary concern of this research. Instead, the area of interest is support for preventative action and further uptake of 'waste to resource principles'. This stance draws attention to the human behavioural, participation and business responsibility aspects of the food waste scourge.

3.3.2 Food Waste Systemicity as a Challenge to a Circular Food Economy (CfE)

Based on the above discussion, a CfE is one in which business and the rest of community manage food resources, without harming the natural environment, without wastage. I might add that as proposed through TRiFOCAL, some may also argue here for attention to healthy nutrition and partaking of good food. Some philosophical aspects which determine the food waste course will be discussed in Chapter 4. For the time being, we can establish that as part of the bio-economy, food waste could take place 'pre-farmgate' or 'post farm-gate'. While the former covers agricultural wastage involved in farming and basic food production, the latter incorporates food retail, manufacturing, meal preparation and catering (such as HaFS).

CfE principles would require original business modelling and design that eradicate waste at every other level of the traditional supply chain (Kristensen et. al., 2016). Resource stewardship is an important core principle. It would include taking appropriate action to ensure food security and sustainability of food production, distribution and redistribution processes. This translates as dealing with the food waste systemicity problem by simply making a case for food valorisation and as such, cutting back on the rotting and wastage of food.

The use of terminology such as: 'resource efficiency', 'food waste redistribution' and 'zero waste' meet the specific goals of a circular economy. This is because circularity helps to secure the sustainable business goals that require food resource efficiency in the first place. Furthermore, while we might acknowledge the debatable notion of 'zero waste' at least, it could be functional as a motivational CfE goal even if not as a practical achievement. One reason for this is because a CfE emphasises the value within the bio-ecology 'wealth of flow' of natural resources needed for agriculture– arable land, water etc. The 2018 EU Monitoring Framework on CE recognizes this interface with food waste prevention, as having: ' . . . an enormous potential for saving the resources we use to produce the food we eat.'

Therefore (and by way of savings), CE ambition applied to the SME food sector might help to address some of the financial and resource challenges facing these businesses. It would include attention to the logistics of food value chains. Eco-social factors (e.g. physical environment, local neighbourhood and extended community) are also important. These factors extend to reducing escalating landfill bills, to over-packaging and to other areas surrounding poor waste management.

In terms of achieving outcomes, these activities could enhance food SME profitability and consumer/ community savings. This is by recognizing fresh strategy for achieving bottom lines and sustainable living. For example, although not necessarily defining SME status, Papargyropoulou et. al. (2016:335) provide case studies of restaurants in Malaysia. They emphasise the disconnect in the complex problem of food waste generation outside the household. These researchers propose a framework for linking these areas. They also inform us that past tendency to focus on either material or socio/ cultural /economic issues have ' . . .fallen short of connecting the two.' On a related note, this call for synergy is also represented by the mixed methods approach which these researchers used for their 5 case studies.

3.4 The Concept of Collective Impact

Collective Impact may also be considered as one expression of Systemic Thinking because of its orientation to holism (Weaver, 2014). Collective Impact requires a 'backbone' agency to carry the administrative weight of collaboration. The concept has been applied to a range of social problems such as housing, health care, education and community development.

Figure 4: Five Conditions of Collective Impact



Source: TRiFOCAL BWG Meeting, (Lund, 2017).

Collective impact is therefore a structured, multi-sector approach for tackling complex problems. Figure 4 shows that there are basic conditions which should be carried out simultaneously, around a 'backbone structure.' The collaboration includes action within two spheres – from an organisational impact perspective and also with a systems level lens. In terms of the latter, Collective Impact requires cyclical courses of inter-relationship and feedback. These processes assume holism and classic systemic thinking.

3.4.1 The Concept of Cross-sector Partnership for Collective Impact

As a concept, 'cross sector' proposes that society has basic sub-divisions. They are: national government, private enterprise and; non-government (or the charitable 'Third Sector'). These sectors may interact or be joined in various ways cooperatively, for collective impact (Rubin, 2002). For the purposes of this research, cross-sector partnership may be described as a cooperative strategy with agreed purpose and direction. In this case, it would be to achieve agreed goals such as preventing food waste, reducing it or turning it into a resource wherever possible. This would translate as thinking about HaFS 'food waste' and promoting and facilitating 'resource management' that is 'circular'. As a cross sector exercise, this would involve: local Councils; businesses; national food waste convenors; NGOs and; other stakeholders.

Resource personnel and the size of staff teams provide a natural opening for discussing and acting on these principles. The concept may well distinguish HaFS staff engagement with clientele as strategic for boosting local custom and facilitating any desired business change. Thus, partnership support for food SME buy-in to circular business is convenient for collective impact.

Colurcio, & Russo-Spena, (2013: 648) explored the engagement theme as both an inter-organisational and a networking tactic. They describe that in practical terms an operational scene would entail: '... the integration of diverse knowledge sources and development of learning processes are carried out in relationships between a multiplicity of actors that may show different characteristics of asymmetry'.

Judging from what has already been said about the human element and relative absence of the socio-relational theme in the literature, there are some absorbing points here about collaboration. Firstly, there is the issue of social relationships between SMEs and their districts (Lester & Canella, 2006; Muske et al., 2007; Fitzgerald et al., 2010; Steiner & Atterton, 2014). For example, one kind of relationship might include SME employment of locals with indigenous knowledge about local issues and networks. Secondly, such action may be considered as an investment in social capital. It could stimulate further SME/community liaison and also aid in harnessing other SME business support where needed.

For example, apart from providing loyal business custom, the returns from such people resources may help to tackle 'real world' problems like 'what to do about business food waste?'. In their Study about rural enterprises, Steiner & Atterton (2014) stress local access as a decisive factor for conducting business in these settings. They especially emphasise the importance of SME social and geographical accessibility to the rest of their communities. Their research suggests potential exchange of benefits involving SMEs and their communities.

This point reflects this Study's concern for the hospitality and food services sector and its SMEs. Many of these establishments are already neighbourhood-based. Rizos et al. (2016: 13) also refer to this point about locality and the importance of diverse stakeholder inputs as contribution to local trade. They identify such individuals as 'supportive multipliers'. This means that there is potential for cross-sector collaboration which can bring about change. Hosseininia & Ramezani (2016) also provide commentary from their research about the Iranian food sector. These researchers highlight the glaring need to unite the social and environmental factors affecting sustainable enterprise among food SMEs.

Jabbour, Sarkis & Lopes de Souza Jabbour, et. al. (2019) define the 'nuts and bolts' of the issue as one of 'green human resource management' (GHRM). In making the link with circular economy (CE) principles they explain: 'Interestingly, and unfortunately, the 'human side' of the circular economy is underrepresented in the research literature. . . The power of human resources to facilitate sustainability initiatives goes beyond the boundaries of the firm, with the human side of sustainable supply chain management also attracting significant attention. . .'.
Jabbour, Sarkis & Lopes de Souza Jabbour, et. al. (2019:794)

We can appreciate the staunch argument of these researchers and the implications for relevant organisational management. At the same time, this is a modest viewpoint in that it does not identify who lies 'beyond the boundaries of the firm'. I would argue that this is where further complexity about responsible business surfaces. This is especially if we acknowledge the cross-sector realities affecting business. These are not limited to the defined nature of a traditional business 'supply chain'.

There is an interesting twist to the above discussion. This is when it comes to SME participation in resource efficiency and current discussion about a 'performance economy'. A performance economy entails movement away from the resource consumption of the former industrial age, towards more skilled jobs, related manual labour and resource efficiency. It is knowledge intensive in focus - endorsing use of ; ' . . . smart materials, smart goods and smart solutions' (Stahel, 2010:1). If we follow this line of solution thinking, organisational collectives which support local SME business change, might also be deemed as 'smart' action.

3.4.2 The Concept of ' . . .moving towards a CfE'

It is worth noting that ' . . .moving towards a CfE' (as suggested in the Study's title) indicates some kind of dynamic progression. Systemic complexity comes to mind here as this suggests an open-ended but also a compound issue. The above discourse in the literature reveals classic systemicities, in which food resources have the potential to join a biological waste stream. CfE embracing would contribute to protecting the food system. It would help to ensure that business (including food SMEs) is sustainable and poised for the long term. This means that the fight is not simply against food waste. It is in pursuit of continuity. As such, food value chains and other linkages would be informed by CfE principles.

Therefore, in referring to this Study's title ' . . .moving towards a circular food economy (CfE)' suggests local action. It also lends substance to 'opting in' to any business innovations and related savings. This is because relational thinking and efficient resource management are *both* entrenched in the concept of a ' circular food economy' (CfE). This 'business and rest of community' synergy will be discussed at greater length in the next Chapter on business philosophy.

Moreover, if we view circular economy as an outgrowth of resource efficient business, it becomes clearer that the subject of collaborative management support has been a neglected area of Study in promoting circular business. Kraaijenhagen, van Oppen & Bocken (2016:14) are upfront in commenting; 'Many experts have discussed circular cycles, product design and business

models in detail but practical support is lacking for the building block of collaboration'. These comments are significant when applied to food SMEs addressing their business food waste.

3.4.3 SMEs & Collaborative Strategy as Open Innovation

There is some agreement about this need for 'new configurations' of fresh mindsets, information exchange and cooperation as part of the dynamism surrounding food sourcing and stewardship of resources (Kristensen, Kjelden & Thorsoe, 2016: 752). Such new configurations would represent an open innovation approach to support circular transition. The New Citizenship Project published a report informing that a CfE requires a fundamental shift in thinking as mere consumers to a mindset of responsible citizenship.⁴ In examining the food theme, this suggests that collective stewardship involving food businesses might help to secure a more sustainable national food system. Moreover, it would be a context in which food SMEs could participate and flourish, as a result of combined support from their communities. The latter could entail business custom, food waste redistribution and local projects which harnesses food resources. It would utilize cross-sector, multi-party support in order to boost business remodelling and change.

It is fair to accept that such collaboration would be proof of partnership (and vice versa). Yet, when applied to the food sector, it seems that there is still a dearth of material about how the people elements of innovation: fresh mindsets, information exchange and collaborative tools might help food SMEs to combat waste and, shift towards circular business. Again, this would represent an open innovation arena. But overall, the literature seems skewed towards discussing clean industry techniques and the mechanics of resource efficiency. This is as opposed to food and other organic themes. Despite some proposed ideas about business cooperation through open innovation, the interpretation of this concept is still unclear.

⁴ See 'Food Citizenship: How thinking of ourselves differently can change the future of our food system', *New Citizenship*, 2017.

For example, the 'internal perspective' such as SME Owner/ Manager/ Consumer 'buy-in' are important to collaborative strategy. These individuals are stakeholders in their own right. It is fair to say that perceptions are important because as initial ideas, they help to shape perspectives, attitudes and green practices. However, people who are uninformed, unimpressed or otherwise motivated are less inclined to be agents of change. This critical issue of citizens' awareness is a broadly reoccurring theme throughout the literature on SME green business (Merritt, 1998; Vernon et. al., 2003; Howarth & Fredericks, 2012; Brammer, Hoejmose & Marchant, 2012; Williams & Schaefer, 2012), but it lacks sector specification.

Pollitt (in Pitelis et al. 2011:78) also contributes to this discussion by offering the psychological concept of 'personal norm activation' for individual engagement. Howarth & Fredericks (2012:679) would refer to this as a '*sense-making*' quality. It could be compared with Gilmore & Pine's assertion (2007:56) that 'natural authenticity principles' (which include ecological concern behind green business) appeals to aspiration, higher purpose and cause. Likewise, Neal, Quester & Hawkins (2006:527) would define these principles as the 'self-oriented values' behind environmental awareness. The essential point is that innovation would be hard pressed in settings which are not 'sense making' and where there is low motivation.

Despite these limitations, some linkage is now being made between open innovation and resource efficiency and, it is being applied to food waste. This is not only being discussed but demonstrated at an international level. In this respect, Melanie Tan, (2016) encourages that ' . . .while complex issues cannot be solved overnight, open innovation competitions can bring new technologies and talent together to create new ideas that can change the way we view issues such as food waste.'

The above conversations reveal complex diverse settings. They also indicate dynamic interconnections which link food waste to resource processes and people. It is important to understand how these play out in food SMEs settings- particularly among HaFS that are tackling organic waste. Conversations cannot

be limited to just the business owners. A whole systems approach is needed simply because plural elements are involved. Such an approach would entail specific outreach to all stakeholders such as: HaFS' staff teams, customers, supply chain partners, EHPs and other sanitation focal points, policy makers and, to the general public.

From the above discussion, we can see the importance of food SME readiness for innovation in their business delivery. This is critical because as a concept, sustainability involves a dual commitment to the business interests of the enterprises and also, to their communities. We can gather that the food waste/ CfE/ food SME matter is definitely a complex affair but there is still room for hope.

3.5 The Story of this Research Journey: Purpose and Early Strategy

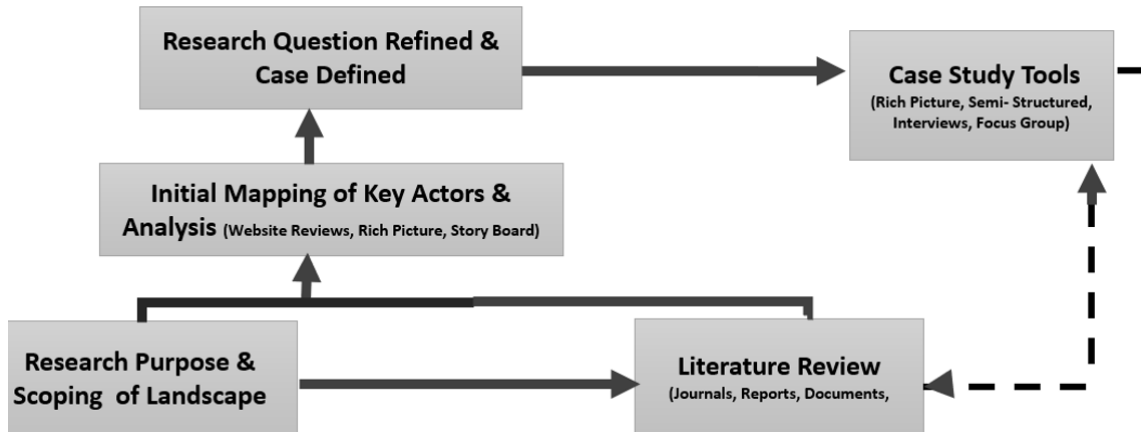
The review purpose informed the research strategy for this PhD. project, as a multi-year commitment. It should be pointed out that some overview of the literature was taking place even while conducting participant observation activities. This meant there was an overlap with the field work. The enquiry quickly gathered momentum and scope, with new information and learning. Furthermore, when certain themes became more topical, access to fresh material also increased. I maintained the SME, circular economy and relational elements throughout the phases. Food waste was becoming part of a national debate yet, there were still obvious gaps and a lack of confluence in the literature. Appendix D records only some of the electronic note-taking which helped to guide the process, as academic papers were also being read and sorted.

During the early stages, reviewing and sorting literature was like a 'provisional' exercise (Bryman & Bell, 2015:104) There was also some engagement with projects and programmes of interest to the topic, again, facilitated by participant observation. Gillham (2000:15,38) supports this idea of taking valuable preparation time for reading, even while engaging with a case.

Diagram 5 below shows the outworking of the research strategy. It lays out planned interaction with the literature but also in the field. As a result, RO1 was empirical in focus and delivered an early assessment. It spoke more to what was actually taking place in the field than to what the literature was saying. As a first

RO, it also provided a buttress for RO2 and RO3 of the Case Study. Moreover, Diagram 5 below confirms that the research was not set out in linear fashion.

Diagram 5: Early Research Strategy



This literature review’s purpose was always about how a relational approach might support SMEs in circular uptake. It was the ‘golden thread’ running throughout this Study. In the very early stages, the aim was to research circular economy practice and responsible enterprise among SME family businesses. This was by exploring theoretical viewpoints and finding out what the literature was saying about helping these enterprises to participate in waste to resource business.

I have taken this narrative approach to explain the original family enterprise theme, not only as a type of relational business but also to tell the story about the Study’s progression from review to research stage. The relational aspect of ‘*familiness*’- the ‘union of ‘family’ and ‘business’ is seen by some as a basis for distinguishing family firms from other enterprises. It could be perceived as a ‘culture’ that enables SME responsible business (Habbershon, Williams and Macmillan: 2003; Pearson, Carr and Shaw: 2008). At the same time, people collectives (as conduits for supporting business) are also consistent with relational thinking.

Concepts eventually gathered significance and deeper meaning as the review progressed. Firstly, there was the idea of the people ‘collective’ as ‘social capital’ for implementing business change. This concept of social capital is defined by

Bubolz (2001: 129) as ‘. . .matter, energy or information converted into specific forms for attaining goals embedded in relationships among people, upon which they can draw to provide information or other resources. . .’. At this stage, we might note that this combination is given to holism (i.e., including social, physical and communication elements) and also leans towards systemic thinking. The significance of holism, systemic thinking and the inter-relationship of ‘green’ concepts in this Study is discussed in the next Chapter on the philosophy of business. Meanwhile, the literature review seemed to be flagging up that relational thinking and philosophy were not mainstream approaches in doing business.

‘Resource efficiency’ was an important concept for this Study. It could be an outworking of responsible enterprise and stewardship principles. The point should also be made that resource efficiency is one aspect of circular business in the drive to stop food waste.

Additionally, the circular economy concept encapsulates an enterprise approach for waste prevention, over the long term. The early stage of the research allowed reflection about a spectrum of concepts. An important part of this was investigating how the concepts related to one another and especially, how this concerned food SMEs.

3.6 Review Questions and Finding the Literature

The review gained momentum through wide word searches using bibliometric analytical tools such as Web of Science, Scopus and Google Scholar. This approach was very productive. It entailed scoping the literary landscape and defining themes, related to SMEs and, responsible SME business in general (Merritt 1998; Spence and Schmidpeter, 2003; Muske, Woods, Swinney & Khoo, 2007; Perrini & Spence, 2009; Vásquez-Carrasco and López-Pérez, 2012; Brammer Hojmosse & Marchant, 2012; Williams & Shaefer, 2012; Spence 2014; Van Gils, 2014).

Figure 5: Search Matrix for the Literature Review



The search matrix at Figure 5 above is another depiction of this Study's early research strategy. The online searches were helpful especially since I was also able to set up a cite referencing system. This provided alerts (in real time) on any trending articles. In terms of storage, when skimming through abstracts, any literature of interest was saved electronically for follow up. Special files were created with titles/ sub-titles which matched the subject matter. For example, there were files entitled: 'SMEs and Resource Efficiency', 'Circular Economy' (with sub-filing about CfE). Some of this material was subsequently printed out for future retrieval-reading and note taking.

This subject matter responded to some review questions such as:

- What literature exists about SMEs and resource efficiency as an expression of responsible business?
- What does the literature say about SME practice of responsible (resource efficient) business?

During this period, I met with SME owner/ managers, NGO opinion leaders, academics and other persons (with an interest in the developing topic). This was

invaluable. Sometimes, these exchanges and conversations resulted in referrals back to specific literature and this led to even deeper engagement with the topic.

One example of this learning was when the Study's focus extended to include a specific food waste theme. As a result, I was able to add the following review question: *'What literature exists about collaborative support for SME participation in resource efficiency (with respect to food waste)?'* This question was directed to enabling food SME business change. National attention to the food waste issue was developing fast and I decided to keep consulting with the literature. The idea was to keep updated and to find out what issues were emerging around the topic, especially as this applied to SMEs.

3.7 Discovering the London TRiFOCAL Project

As a result of this strategy of interaction with the literature and scoping the field that I found out about the London TRiFOCAL (Transforming City FOod Habits for Life) Project. Successful research is about appropriate preparation and basic structuring of tasks and, methodology across a range of issue areas or qualitative and quantitative approaches (Maqsood, Finegan & Walker, 2001; Braun & Clark, 2006; Shareia & Bubaker, 2016; Hu, 2018). However, otherwise unplanned activities may help our investigation. This was the case in finding out about the London TRiFOCAL Project which provided the context for this Case Study. TRiFOCAL met the basic search criteria for an organisation/ venture which was firstly; addressing food waste, secondly; employing a collaborative approach and thirdly, inclusive of food SMEs. These basic sampling parameters were then defined by 6 features. There is further explanation about this in the Chapter on research methodology. Needless to say, after extensive online searches and networking, scouting and, attending a host of events, I first heard about TRiFOCAL during one of the latter scoping exercises. Although the initial search was tedious, the TRiFOCAL timing was perfect for scheduling milestones for this research.

3.8 'Gap Spotting and Missing Elements'

By this stage, circular economy, relational business and SMEs were becoming main areas of interest. A purposive, contingent approach was used for choosing the sample of literature. Bryman & Bell (2015:430) comment on the significance of this organic approach affecting both review and / or potential research questions: 'A purposive sampling approach is contingent when the criteria for sampling units of analysis evolve over the course of the research.' In other words, the selection criteria for reading material followed an iterative process.

I wanted to find out what support existed for SME uptake of responsible business. This was particularly after early scoping of the literature and noting what seemed to be missing in examining the parameters of the topic and the stakeholders involved.

Among others, the following literature strands and prompts were explored via word searches such as: '*Family SMEs and resource management*', '*SME Green Business*', '*Circular Economy*', '*SME Environmental Management*', '*SMEs and Ethical Enterprise*', etc. These broad links were chosen as synonyms or as preferred outcomes for greater business accountability, business resilience and for sustainable living, in general.

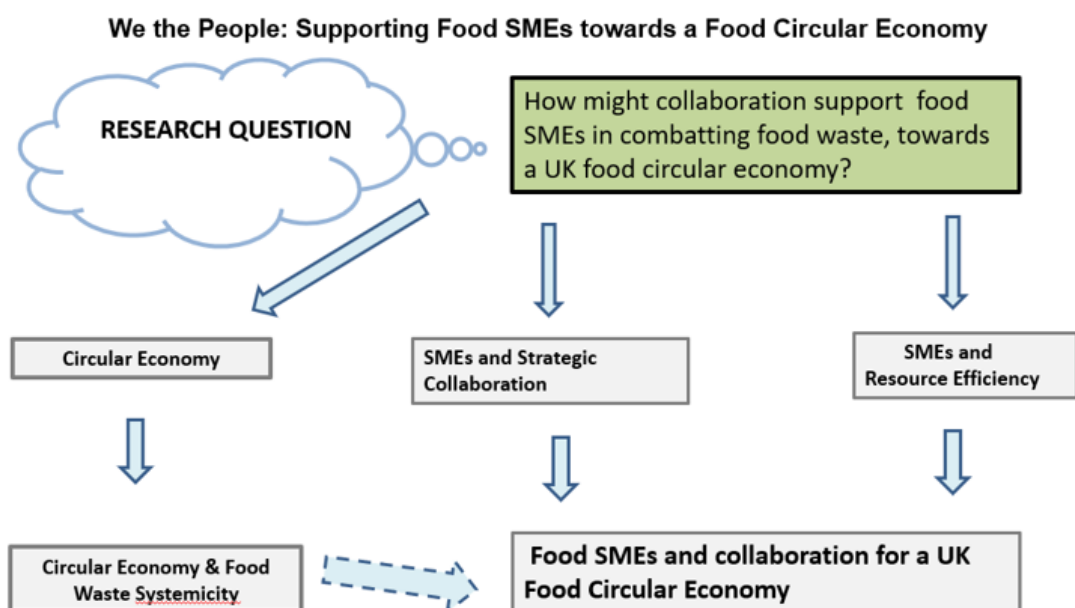
One contributing factor to refining the research focus was that the food waste discourse intensified as a national concern. There were arguments for immediate food waste reduction in landfill dumping and also in planning a long-term business response. The concept of business waste as food and potential redistribution to feed hungry people was also of surging interest for the media and the general public. Yet, the narrative and spotlighting were mostly around big businesses and food waste. This factor made the question of what was happening at the food SME level especially appealing for investigation.

The result of all these developments was a revised review topic that centred on three very broad themes:

- SMEs and Resource Efficiency (defined as a demonstration of responsible business)
- SMEs and Strategic collaboration
- Circular Economy.

It seemed that these areas could form a base from which to visit a second batch of data (specifying a Circular Food Economy (CfE))and, investigating supportive measures to help SMEs address food waste systemicity. This arose from fresh curiosity about what literature had already been circulating and how the SME food sub-sector was being depicted. This evolution may be seen in the Literature Relevance Tree at Diagram 6 below. In reality, this Diagram represents only a written layout of the exercise. The journey was neither a clear-cut nor linear process. Much of the research preparation, insight and activity during this phase were conducted in tandem with library visits and internet searches linked to the revisited sub-themes.

Diagram 6: Literature Relevance Tree



During the review's inception stage, the idea was to find out as much as possible about the subject and also, any overlapping factors or areas of interrelationship. There are many perspectives about this inception phase of conducting research and the dynamic that it could bring to investigation. For example, Darke et al. (1998:280) describe this kind of research strategy in terms of its value in ' . . . helping to position the research question (s). Bryson and Bell (2015:110-111) also comment about the benefits of this early stage in reviewing literature and argue that it assists the Researcher by 'generating understanding', as opposed to simply amassing information. They further explain that this narrative style of storytelling: ' . . . may lead you to consider the inclusion of variables in your research that you might not otherwise have thought about.'

Sandberg & Alvesson (2011:37) propose the logic of 'gap spotting' in existing knowledge as a catalyst for researching a particular area:
'We think it often makes sense to review and base one's work on earlier studies. For instance, if there is a wealth of good studies, which one, after a critical scrutiny, finds reasonable, it may be a good idea to use them as a springboard for formulating one's own research questions. . . '

Collis & Hussey (2003, adapted by Myers, 2013) would also defend this review of material as an iterative strategy for testing the feasibility of a research problem. They propose a method by which the researcher reads on a particular topic, while noting any spaces or unanswered questions in the body of literature. The objective is a more fine-tuned area of Study. It uses the said identified 'gaps' in the literature, in order to confirm whether a 'suitable problem' exists. In other words, by probing and discarding what is irrelevant, this also means that the researcher is engaging reflectively with the literature. According to this view, there may even be recommendations urged on by other researchers that encourage a shift of emphasis, regarding variables or concepts of the original review topic (Myers, 2013:22).

I have mentioned this range of viewpoints because they match some experiences while conducting this Study and especially during the inception of the review.

Another reason for this detailing is to clarify the setting for the enquiry, how it progressed and, to explain how changing emphases were linked to lack of confluence in the literature or even 'missing gaps'.

Still on this note of openness, there were advantages in spending many hours sorting, perusing and reflecting on the literature. These activities afforded distance from which to examine how themes/ sub-themes were evolving and what was actually trending regarding key subject areas. Although not a part of the empirical aspect of this Study, I consider the findings from the literature as critical breakthrough in directing this research. These provided a platform for laying out concepts towards the interpretive framework which follows in Chapter 4.

3.9 The Nature and Categorization of the Literature

A literature review allows critical assessment of what others have written about a particular topic (Myers, 2013). It is also a helpful way of tracing how that topic of interest has evolved and noting outstanding issues or areas for further enquiry. Some researchers also see reviews as opportunity to go deeper in exploring a particular subject. This is to the extent that initial research questions may be shaped or revisited in a way that directly impacts the design of a research project (Bryman & Bell, 2015; Olsen, 2012; Yazan, 2015; Merriam & Tisdell, 2016; Yin, 2018). This review was conducted along these lines and we can now examine some of the key findings.

3.9.1 The NGO Literature

Perhaps the first major discovery arising from this review was the existence of three distinct strands of literature. Some reading material was being generated by NGO intermediaries such as the Federation of Small Businesses and public sectors (national policy initiatives & legislation). This was significant as it represented a third sector response to the issues about SME resource efficiency. The writing revealed concerns about the effects of BREXIT commerce and, business and EU legislation about circular economy.

I thought that the issues were decisive for continuing research. There was also the potential of a knock-on effect for industry/ academia collaboration, at least in ways that could achieve practical support for food SMEs. Sometimes in the NGO literature, (at Table 2) there were underlying empowerment themes related to people collectives (i.e., citizens, charities, councils and other community) and business change. My observations on the field, backed up some of these findings.

For example, it was also becoming clearer that awareness of the issues at hand (re: waste to resource business in general, key actors and areas for support) were central to food SMEs maintaining any semblance of a triple bottom line. This was another basis for examining how collaborative support might encourage SME resource efficient practice.

Table 2: Examples of the development of NGO Literature pertaining to this Study

DATE	LITERATURE	SOURCE	COMMENTS
2011	Development of a competency Framework for Business Resource Efficiency	WRAP	Report commissioned by DEFRA engagement with 43 SMEs. SME resource management usually linked to cost savings NOT environmentalism. Hence cost is the central point of interest for them opting into change
2013	Resource Resilient UK	UK Circular Economy Task Force (Green Alliance)	A Report with UK focus
2013	Overview of Waste in the UK Hospitality and Food Service Sector	WRAP	Definition of this sub-sector and reporting on key issues and challenges related to food waste.
DATE	LITERATURE	SOURCE	COMMENTS
2015	Courtauld Commitment 2025	WRAP	A voluntary code/convention including businesses but also targeting households and wider society UK's commitment to reduce national food and drink waste by 20% per individual by 2025.

2016	Food Loss and Waste Accounting and Reporting Standard	The Consumer Goods Forum, Waste and Resources Action Programme (WRAP), Fusions, Save Food Initiative, United Nations Environment Programme (UNEP), World Business Council for Sustainable Development (WBCSD), World Resources Institute and	High level multi-stakeholder partnership with global reach and impact
2017	TRIFOCAL 'Your Business is Food'	WRAP	Impressive Campaign literature with multi-stakeholder core, triadic focus and appeal. This is symbolised in the title
2017	Estimates of Food Surplus and Waste Arising in the UK	WRAP	Hospitality and food services (HaFS) produce 9% of post 'farm- gate' food waste in the UK. Need to measure pre-farm gate. 75% of food wasted in HaFS is avoidable (mostly carbohydrates).
2017	Food Citizenship: How thinking of ourselves differently can change the future of our food system, August 2017.	New Citizenship Project	Need for shift from 'consumer' mindset to collaborative citizenship, as guardians of our Food System. This is the ultimate leveller for everyone across ALL sectors. Clear reliance on Systems Thinking and emphasis on a participatory approach (employed 'Rich Picture' technique in workshops).
DATE	LITERATURE	SOURCE	COMMENTS
2017	Collected Case Studies: Collaborations between Universities and Businesses	Centre for Cities	Paper confirming benefits of cross-sector collaboration/or multi-stakeholder partnerships, example of food and drink (Interface Food and Drink, 17 universities and industry groups in Scotland) came up with algorithm to cut waste (meat, agriculture and drinks)
2016	Food Loss and Waste Accounting and Reporting Standard	The Consumer Goods Forum, Waste and Resources Action Programme	Multi-Stakeholder Partnership

		(WRAP), Fusions, Save Food Initiative, United Nations Environment Programme (UNEP), World Business Council for Sustainable Development (WBCSD), World Resources Institute	
2017	Competing Demands and Perceptions of Sustainability.	Glover, J. (2017). The University of Birmingham REACH Fund and Business Engagement Fund	Study sympathetic to small enterprise challenges of farmers. Notes the importance of attention to localities
2017	A People's Food Policy: Transforming our food system- contributions from at least 100 UK grassroots organisations and networks	Growing People	Rural significance- broad-based consultation and indicating importance of local initiative already taking place
2018	Cities and the Circular Economy for Food	Ellen Mac Arthur Foundation	Urban significance
2018	From a Linear to a Circular Economy: Experiences from Denmark and New York on Closing the Loop through Partnerships and Circular Business Models	State of Green, 2018	Demonstrating Cross-Sector validity
2018	UK Food Waste Road Map	WRAP and IDG	First of its kind in the world. Supports Courtauld 2025 and SDG 12.3. Anticipation of 'Target-Measure- Act' policy. Towards 50% of the nation's large food businesses (250), by Sept. 2019, using this report on food waste

3.9.2 The Academic Literature

There was a growing body of academic writing touching the main concepts presented in the first part of this Chapter. The material was widely spread across a range of journals and it was very disordered. For example, with respect to the subject area of resource efficient business as an expression of social responsibility, Vo's (2011:89) reflections about the SME storyline is that the nature of the literature is 'fragmented and underdeveloped'. Moore & Spence (2006:220) also recognize the disorganised nature of this material surrounding resource efficiency. They comment; 'One of the primary problems in gathering together literature on this area is that relevant research is published in a wide spectrum of journal types.' This is even more challenging because of cross-

disciplinary relevance to: business management, asset-based community development policy and ecology. Meanwhile, Vázquez-Carrasco & López-Pérez (2013) criticise the 'low profile' attributed to social responsibility in the top-three SME journals.

Since I continued reading well after the initial review stage, I noticed that connected themes such as food waste and circular economy (applied to SMEs in the hospitality sector) eventually became more frequent. The Reader may reference the matrix at Appendix D. My intention was to layout the chronology of the development of the literature from the start of this project. In so doing, I have adopted a similar approach to Rajeev et. al. (2017) in their charting development of material about another sustainability topic. Additionally, there are definite patterns in how the themes in this Study correlate with green business terminology.

I have charted from the 'familiness', responsible business and CSR constructs, to issues of resource efficiency and, more recent concepts linked to CE. These informed the focus on SMEs and the thrust towards circular practice. Although incomplete, this matrix has the potential to become an exhaustive collection of literature. This expanse of literature may be considered as a base for future research on other aspects pertaining to the concepts in this Study. I have outlined the material according to the following classifications:

a) Definitive discourse

This literature grouping is conceptual in its focus. It presents theoretical frameworks and/ models which are foundational to the general topic. The second 'Definitive' category applies these constructs to broad-based issues and key themes (e.g., cross-sector partnership, management and circular economy). Some of this literature has a functional review purpose. It includes commentary of already compiled literature.

b) Comparative Statement

This category refers to a blossoming area of dual nation or other international

comparisons with the UK. This was helpful in showing the development of concepts in the topic, as these applied to other parts of the world.

c) Instructive Function

Material with an instrumental focus- Reporting on empirical exercises (e.g., application of food waste measurement) or to improve business processes and operation.

3.9.3 Policy Literature

The nature of this literature could be described in terms of its policy-related sources, formats and projected focus areas. This review especially recognises the timeliness of the UK commitment to the UN Sustainable Development Goal 12.3, to halve global food waste by, 2030. This goal is linked to other environmental and bio-economy-concerns about depleting natural resources. As a result, there is a mass of UK and EU policy legislation, reports and other NGO campaign documents with food waste themes. The information presented here is only representative of this development.

Food loss and waste are not only business resource efficiency issues (but ultimately a matter of food security.⁵ The policy backdrop for this research is significant at both international and national levels. It spans: the CE Zero Waste Programme for Europe; the 2014 *Green Action Plan* for SMEs; the recent 2015 UN Climate Change Conference (COP21) and UN 'Responsible Consumption and Production Goals'⁶. There are also UK commitments to food waste reduction and a new 2025 phase to the Courtauld Commitment (as noted in the Introduction).

An earlier 2018 UK Food Waste Road Map proposed a national measurement system for helping businesses to monitor food waste. It prioritized large 'farm to

⁵ See 'The World is Our Oyster' by the Consolidated Hub Development Ltd.

⁶ See UN Sustainable Development Goal 12.3 <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

fork' businesses, using a supply chain strategy. As this measure encouraged corporate food agencies to support their suppliers, there are implications for food SMEs along the supply chain.

BREXIT was the most intense political, socio-economic and environmental contention impacting the future of UK business. From all appearances, the commitment to a green economy policy has been maintained. This policy shift came with a sweep of legislative changes affecting: food businesses, strategies, product/ service designs and delivery mechanisms. One example is the UK's 25 Year *Food and Farming Plan* (2016).

Against the above backdrop, the business preparation message behind this Study is timely for food SMEs. It also anticipates monumental changes ahead. In terms of campaigning literature on this topic, Laughton (2017:ii, 45) calls for the quantification of the 'multifunctional' benefits of the food supply chain. For example, she notes the high motivation of some UK small farmers, along the lines of food security and food waste, through '...care of the soil, water and biodiversity, reduction of greenhouse gas emissions, as well as provision of public education about farming and the building of community. . .'. The idea would be to use such quantification to support what is already known about qualitative contribution to areas '... such as the reduction in food wastage achieved by direct marketing.' Over the last decade, some policy materials which speak to these issues are outlined below at Table 3.

Table 3: Examples of Key Policy and Measures (2008-2018) related to this Study

DATE	LITERATURE	SOURCE	COMMENTS
2008	EU Waste Framework Directive	EU Environment	Sets out basic concepts, principles ('polluter pays' and 'producer responsibility' and waste hierarchy for dealing with waste
2010 -2015	Food for Wales: Food from Wales: A Strategy for Food	UK, DEFRA 2010-2015 Government policy	UK Specific

2011	Enhancing the innovativeness of food SMEs through the management of strategic network behaviour and network learning performance 'SMEs network learning in non-EU food sector networks'	EU funded project	Examines 'hands on' approach to learning, facilitated by 8 networks in 5 countries: Brazil, Canada, USA, Vietnam and New Zealand. Cognitive focus p.43
2013	Food Waste Monitor, Mid-term Report	EU-related, The Netherlands	Multinational reference
2013	Resource Resilient UK	UK	A Report from the Circular Economy Task Force (Green Alliance)
2013	How can social innovation help reduce food waste?	FUSIONS, EU	Social innovation highlights relational business made possible through multi-stakeholder approach. Attention given to business purpose which although profitable, works in the interest of the common good. "Social innovation is about new ideas that work to address pressing unmet needs. We simply describe it as innovations that are both social in their ends and in their means. Social innovations are new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations" p.3
2013	The role of Lean thinking in increasing resource efficiency in the UK food and drink supply chain	DEFRA	Includes key recommendations and strategies
DATE	LITERATURE	SOURCE	COMMENTS
2014	FUSIONS Definitional Framework for Food Waste	EU	In search of a common definitions regarding food & drink waste in order to inform national state policies
2015	UN SDG 12.3	UN	' . . .calls for cutting in half per capita global food waste at the retail and consumer level and reducing food losses along production and supply chains (including post-harvest losses) by 2030.'
2017	London's Circular Route Map	UK, London Waste and Recycling Board & ADVANCE LONDON	Significance: City-specific
2015	Final Report Summary – SENSE	EU Practice delivery	Project explored creation of methodology for harmonised

			environmental impact of food production, using information. Commitment to monitoring, tracing waste and real-time reporting, especially for benefits of SMEs in food and drink industry (Spain)
2016	Encouraging and Supporting SMEs to improve their resource efficiency (Shared Resource Efficiency Managers)	DEFRA	UK specific
2017	Food for The Circular Economy	EU related- The Netherlands	A PBL Policy Brief
2017	'Food for Life', the European Collaboration of the National Food Technology Platforms, and the European Federation of Food Science and Technology on Implementation Actions for the SMEs in the Food and Drink Sector.	EU	Food and Drink SMEs are of 'great economic importance' creative potential in the sector is not tapped urgent attention needed to improve the situation p.2 SMEs in the 'Food 2020' Project-towards a sustainable CfE, cross-border collaboration (German-Dutch, involving companies, research and other specialists) Making Research and Innovation Work for SMEs in the Food and Drink Sector (2016) Joint Chapter of the European Technology Platform
2018	Circular Economy: Closing the Loop- An ambitious EU Circular Economy Package	EU	Including 'A Monitoring Framework on the Circular Economy'
DATE	LITERATURE	SOURCE	COMMENTS
2018	SDG Target 12.3 on Food Loss and Waste 2018 Progress Report	Champions 12.3 UN	International significance
2018	'From a linear to a circular economy': Experiences from Denmark and New York in Closing the Loop through partnerships and Circular Business Models	Danish Cleantech Hub & State of Green	EU related material, acknowledges that shift to CE is systemic, requiring cross-sector collaboration

3.10 Towards a meta-framework of human cooperation

The logic behind recent national campaigning that; '*. . . food waste is everybody's business*', is an argument for widespread stakeholder inclusion⁷. The immediate appeal of this challenge is for broad participation because *everyone* has a part to play in fighting food waste. There are other implicit conclusions which can be drawn from this cause. Firstly, we can associate the food waste matter with

⁷ WRAP national campaign, 2018.

resource efficiency. The second point has an implied urgency- the food waste matter is also an issue of food security and, long-term sustainability. This lands the affair in the wider CfE field where a number of this Study's concepts already reside.

For example, we might revisit the distinct call for collaboration in order to combat the global food waste problem. According to Ruggieri et al. (2016), meta-organisational support for responsible enterprise can ease business transformation towards circular practice. In other words, collective contributions might not only help businesses in minimising waste but also augmenting re-use of materials as a valued resource. Kalmykova et. al., (2018) would consider this as a type of stock optimization (in this case, dependent on multi-stakeholder cooperation). We should note that this principle is fundamental to the CE concept introduced earlier in the literature review.

Ruggieri et. al. (2016) also provide some important contrasts about this matter. While not excluding an SME role, their idea of a meta-approach for achieving 'symbiosis' through circular production processes featured networks of business organisations (and even customers). Moreover, they highlight innovative manufacturing processes that support CE practice. For example, inter-business cooperation and setting up eco-industry parks are proposed as one way of achieving this goal. In short, while promoting regenerative business concepts, Ruggieri et. al. (2016) apply these to industrial production. Arguably, this is very different to the boutique business culture of many SME food services.

At the same time, it is worth noting that these researchers openly acknowledged the limitations of their research. This is evident in calling for a wider action paradigm with '...room for the presence of subjects like brokers, intermediaries or accelerators of cooperation, whose role and effectiveness in the development of a circular economy should be investigated' (Ruggieri, 2016: 14). This Study may be considered as a response to their invitation. The aim is to bring attention to these other 'subjects'.

There is another side to this observation, since many HaFS that are SMEs are already embedded within neighbourhoods, more joined up food waste

participation by HaFS could promote 'grassroots' action and community change. In this case, actors would include other businesses, council agencies, educational institutions, charities and customers.

In terms of national commentary, the UK's Road Map is very clear about the need for collective action; 'To meet the national and global targets, collaborative and concerted efforts to reduce food waste are required.'⁸. Kraaijenhagen, Oppen & Bocken, 2016:28). Bititci, Turner & Kearney (2006) also examine the topic of collaboration and facilitating economic competitiveness. However, it is worth noting that their work was about B2B cooperation, to identify weaknesses and develop SME capabilities. This contrasts with the idea of multi-stakeholder, collaborative support for the SMEs, working across-sectors which is being proposed in this Study.

3.10.1 Concepts used to define an Interpretive Framework for this Study

This literature review made a significant contribution to this research. It provided a launchpad for developing and refining the Study's direction. It also helped to expose the need for a comprehensive stance from which to understand the issue. As we can see, the academic literature is showing a lack of joined up thinking across four central themes. This relates to 1) collaborative, 2) cross-sector organisation involving 3) food SMEs in 4) CE application.

In speaking about collaboration, one of the most important principles is Systems Thinking. Systems Thinking is essential for business model innovation. It would allow business practitioners and other actors to consider multi-stakeholder interests (including society and environment) as part of the way business is delivered. This would include a comprehensive appreciation for dynamic inter-connections, relationships and feedback within a particular scheme. Arguably, in using Checkland's (1983) terms, the early status of the literature (in relation to the review topic) reveal an absence of the very 'system of process'.

⁸ See p. 4, 'Target. Measure. Act. The Food Waste Reduction Roadmap toolkit', WRAP 2018

It now seems more fitting to describe the status of the reviewed material in terms of a lack of 'convergence' and, not just as a 'gap' in the academic writing. This 'big picture' factor may be confirming prevailing reductionist viewpoints and exclusions regarding the topic. Furthermore, there are obvious divides.

For example, some researchers are expressing disappointment about little attention to the human cooperation topic in the literature. Ruggieri et. al (2016) also express concerns about an 'inter-organisational cooperation perspective' for accelerating circular business. Vasileiros et. al. (2015) lament that despite many claims for multi-stakeholder cooperation to support circular business, more effort is needed in this area. This is especially with reference to SMEs – and not assuming denial of food SME commitment to the issues either. These are all admissions about the need for fresh research. This is especially since the contribution of SMEs to the waste action arena seems disproportionate to the true expanse of the national food sector.

Wilson, Williams & Kemp (2011) also point out this imbalance with respect to the huge size of the SME sector in the UK. Even if for the sake of appropriate terminology, it would be necessary to go *beyond* the usual corporate social responsibility; 'CSR' construct for effecting SME business resource efficiency. Of course, this is admission that (by definition), the 'CSR' term excludes smaller enterprises, in the first place (Baden and Harwood:2013).

I am making the point here that these 'divides' were not necessarily a limitation. They provided an opportunity for appropriate lens for further examination of the subject matter. It seemed logical that this interpretive framework would have the capacity to pull together the many research concepts and themes. This interpretive lens would allow basic understanding about the expanse and the intricacies surrounding support for food SME uptake of resource efficiency.

3.10.2 Taking Concepts Forward. . .

Apart from the complexity around the concepts already examined at the start of this Chapter, there were other thematic areas which surfaced as relevant to this Study. Firstly, since the issue was taking shape as a human participation challenge (at both individual and institutional/ organisational levels), it was clearly about managing complexity. Then, there were other new concepts such as: SME business purpose; values and resource valorisation and; resource stewardship applied to food enterprises. These aligned with earlier concepts such as responsible business; food waste and collective impact. As a result, I began to construct a hybrid lens featuring Systemic Thinking and Critical Realism. However, it is important to note that Critical Systems Thinking (Midgley, 1995; Jackson, 1994; 2003) provides a reference point for this interpretive lens. This is because of its commitment to holism and practical orientation for improvement, while working through complexity.

In this respect, methodology is also an area of interest. Anticipating the support and participation of the many: owner managers; chefs; council representatives; supply chain personnel and; customers is a basis for the multi-method described in Chapter 5. This approach is also supported by the methodological pluralism of Critical Systems Thinking.

3.11 Summary Conclusion

This narrative review examined support for food SME participation in the waste to resource principles of circular business. Overall, the story reveals three strands of literature surrounding the topic and, a significant mix of related concepts and themes. The review exposed a lack of convergence across this material, especially in terms of support for food SMEs business transition to more circular practice. It also records the review progressing from early concepts of relational themes (associated with familiness), applied to SME resource efficient business.

Combining the broad literature strands presented in this review complements holism and systemicity. This aligns well with relational business concepts and a call for more attention to preserving the food resource stewardship and business

innovation among food SMEs. There is also deep significance in the discovery of academic, policy and NGO (including private sector) literature on the topic. Even though they are at various stages of development and detailing, this all sector representation suggests a role for citizenry' the people'- whether as staff, customer or colleague.

At the same time, it is an indication of complexity. This would require a conceptual framework which endorses interconnectedness and interdependence between enterprise and its environment. We will now have a closer look at these ideas in the next Chapter on business philosophy.

CHAPTER 4 ‘business *within* Community, not ‘Business *and* community’

The transition to a circular economy requires holistic approaches and frameworks. . . To capture the immense potential and benefits of the circular economy, high levels of coordination across-sectors and public-private divides are necessary. State of Green, (2018).

4.1 Summary

A transformative philosophy is needed to support food SME regenerative enterprise. In order to achieve this, revisiting the essentials of business purpose is inescapable. This Chapter offers ideas for a social ontology as a contribution to developing this important basis for change. It discusses the philosophy of knowledge in relation to the Study’s topic and its linkage to prevailing narratives about sustainability and the Anthropocene Era. In this Study, the latter is associated with extreme environmental disruptions which are affecting food production and distribution. In many respects, this validates action on food waste and the proposal of a CfE.

Perhaps the most tactical part of this Section is its draft framework which combines Critical Realism with Systemic Thinking. By combining these two meta-approaches, an interpretive lens is proposed for understanding the Study. However, this is against the backdrop of Critical Systems Thinking (CST) which solidifies the Study’s philosophical positioning.

4.2 Matters Arising: The Literature Review’s Signposting to Philosophy

As noted earlier, the literature helped to inform this qualitative Case Study. It brought institutions, neighbourhoods and information exchange into the forefront of the discussion about human *resource flows* affecting food SMEs and moving towards a CfE. This showed the potential in thinking systemically - about how collective action (that supports food SMEs), might host emergent possibilities for a post-Brexit UK. Despite traditional profiling as non-champions for responsible

business, this review suggests the opportunity for fresh vision surrounding SME participation in this arena. There is more to be said about the social dimension on the whole. This is where human issues like information waste flows, collaborative learning and interdependencies might enhance food SME delivery and, the management of institutional partnerships.

Reviewing the literature therefore presented a case for a systemic approach to the broad topic of SME resource efficiency and change, through collaboration. Some of the agency efforts, projects and practical work which promote food waste reduction already assume some aspect of systemic thinking (ST). Yet, it is of note that this view (and especially its philosophical rudiments) is often not spelled out or openly stated in business arenas. There is need for further discussion about the philosophical and theoretical nature of Systems Thinking.

This involves some rejection of the traditional assumptions of 'business *and society*' (Lockett, Moon & Visser, 2006:119). Likewise, Van Gils et al. (2014) are upfront in proposing that business should be defined within the context of its social system- not as an autonomous entity.

4.3 Critical Systems Thinking: A Valuable Positioning

On this assessment about local business operating within community context, Van Gils et. al (2014) actually provide an entrance for referencing Critical Systems Thinking in this Study. There has been considerable debate taking place around Critical Systems Thinking, its nature, contribution to operational research and problem structuring situations (Jackson, 2001; Mingers, 2009; Flood, 1990; Midgley, 1995; Jackson & Sambo, 2020; Smith, 2011).

Although CST may be considered as offering a critique of the different strands of Systems Thinking, its significance for this Case Study is not this type of argument. It is because of a shared philosophical commitment to holism by thinking systemically in the first place. In any case, Jackson's (1994) appeal to '...move beyond the fragments' seems like an indirect plea for integration and holism. Jackson (2003: xv) also draws attention to the contribution of seminal

concepts such as creativity and ethics, in the midst of diversity. These ring true with the management aims of this research. He comments: 'Holism puts the study of wholes before that of the parts. It does not try to break down organizations into parts in order to understand them and intervene in them. It concentrates its attention instead at the organizational level and on ensuring that the parts are functioning and are related properly together so that they serve the purposes of the whole.'

This call resonates with the holism applied to the diverse concepts earlier in this qualitative Study. Of course, there are further challenges around how such conceptual foundations might be integrated to encourage support for food SME participation in restorative business. This point is reflected in the Study's title.

Apart from the central issue of holism that is so fundamental to systemic thinking, CST provides a strategic reference for this Study in other ways. Firstly, it is sympathetic to 'real world' problems like tackling business food waste and the need for regenerative enterprise. In other words, Critical Systems Thinking ably fits the sustainability concerns of this research not only because of systemic thinking but because it offers *critical overview and awareness which is change focussed*. Jackson (1994; 2001; 2003; 2020) is consistent about this argument. Midgley (1995) also comments about it. Some researchers link this point to other fields such as knowledge management (Gao et. al. 2003) and information technology (Jokonya, 2016). I am making the point here that CST is also applicable to awareness about the food waste debacle and, how SMEs are supported (or not- especially, in keeping with their business scale and capacity).

Furthermore, in terms of praxis, CST is attuned to working through complexity, power differentials and even some 'emancipatory' aspects of human experience. On this note, I refer not only to the SME status issue but the current state of affairs surrounding the natural environment (in which our food system was originally meant to thrive). This subject is discussed later in this Chapter. For the time being, Smith (2010: 2) offers thoughts about how this relates to international development: '. . . CST has an implicit systems approach that, among other things, enables a development practitioner to conceptualize the interdependent

nature of human and ecosystem well-being and to act in a way cognisant of the complexity, multiple perspectives, and ambiguity associated with this interdependence'

For the time being, let us look at interesting shifts already taking place which indicate the need for systems thinking (for managing the topic on the whole). The developments below are also significant where philosophical underpinnings in business are concealed or the implications of this are not fully spelled out.

- a) An increasing body of third sector literature and material- initially linked to campaign messaging but moving towards embedding food savings and other practice issues. The direction of change envelopes all dimensions of society. The strategies are moving towards cross-sector collaboration as a model for bringing about change.
- b) Redefinition of the 'supply chain'- This is most obvious in the 'all in' approach of various campaign titles. The assumption is that addressing food waste (over the long term) is not limited to a linear supply chain of business to the adult customer. It is worth noting that with reference to stakeholders, the 'closed loop' may be inclusive of children and young people. Vibrant food waste outreach programmes to schools across the UK are proof of this. These also underscore apparent transition from 'Business *and* community' to a 'business *within* Community' mindset.
- c) With respect to philosophy, the above seems to be linked to an epistemological shift in our understanding of transformation. Ultimately, 'how we really know that we know' is through responsive, creative change, over the long term.
- d) In view of the above, Action Research methodology is becoming commonplace. Additionally, the conceptual papers and the Case Study approach are among the most topical strategies for research design and storytelling.

4.4 In search of a Philosophy of Knowledge for Sustainable Business

Despite these developments, it seems that the push for sustainable business is happening at the expense of a comprehensive knowledge framework to validate and to help pilot this change. I broadly define this framework as a 'philosophy of purpose'. There are different dimensions of philosophy and social scientists generally agree that philosophy incorporates at least 3 basic components. These are: ontology, epistemology and theoretical perspective (Moon & Blackman, 2017). Ontology allows us to explore foundational beliefs about the nature of reality and existence (Merriam & Tisdell, 2016), whereas epistemology is concerned about the scope of knowledge.

Epistemology may be described as the theory of knowledge. It also examines the logic behind belief systems and, what really makes a particular dogma 'legitimate' as opposed to just an opinion (Blaikie, 2010). Burrell (1979) contributes to this discussion by summarizing ontology as the logic of knowing what actually exists, whereas epistemology determines '...how we know that we know what exists.' These two philosophical components are closely aligned, helping us to define our view of the world and, how we believe it should be. It seems logical that the 'world of business' and business research are not exempted but fall somewhere within these philosophical parameters of being and knowing.

Therefore, I would argue that when it comes to this Study's topic and examining the current food waste narrative, both components are important. This is because philosophy and epistemology can allow us to set up 'thinking frameworks' for revisiting specified hypotheses and concepts. This means that in fact, there could be space for examining the onto-epistemological stance behind promoting a bio-based economy (BBE) with its emphasis on renewing organic resources, zero waste, efficiency and as such, a direct genesis to a proposed CE. Likewise, it is safe to assume opportunity for thinking about enterprise philosophy that fuels business transformation. Only this time, it would be through the collaborative support of who Zwier et. al. (2017:) may determine as '...other social actors'. Such thinking would be in keeping with this Case Study and the conceptual proposition of collective people action, towards more ecologically-sound food SMEs (consistent with CfE principles).

In other words, we are discussing an active knowledge process that entails disclosure of meaning about the overall topic and, how concepts correlate (or not) within any held belief system. However, even as thinkers, one should keep in mind the practicalities of business delivery as a key concern of this Study. In light of this, such conceptualization actually represents *real* settings, it involves *real* businesses and other *real* stakeholders. From this position of all that have been discussed so far, we can see that philosophy could be deeply personal (as a held belief) yet, it can provide functional insights for operational enterprise, defining business ethos and value with respect to the marketplace.

The third philosophical constituent involves a theoretical position about a certain issue or phenomenon. How we then organize and apply this guidance is further accomplished by research methodology. The outworking of this third aspect is introduced later in the Chapter on research design but for the time being, let us now examine an important contribution of business philosophy.

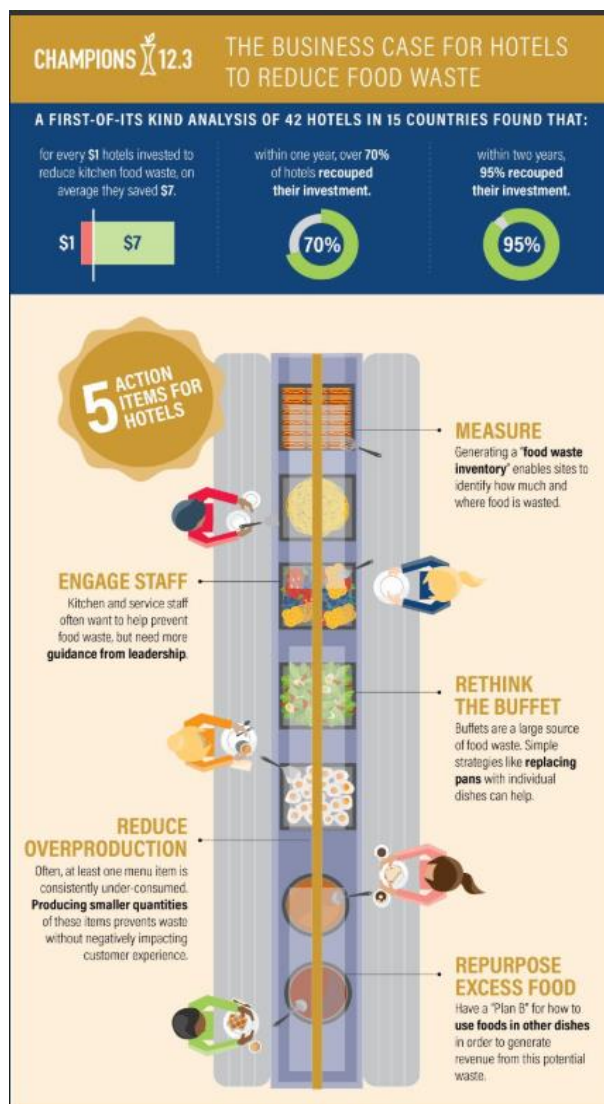
4.5 Philosophy's contribution of 'a Thinking Space'

The gift of thought; the ability to conceptualize, to assess and to evaluate are human aptitudes that are crucial for business. Judging from the above discussion, if philosophy appears to be separated from business, the dichotomy is a false one. The Reader should note my confession that this perspective reveals a personal philosophy. However, that is precisely the point and at least it is a declared view. Furthermore, I propose that any philosophy of enterprise offers a 'thinking space' for us to create, explore and to exchange perspectives. This process may flag up hidden assumptions, barriers or even opportunities for socio-economic transformation. I propose that the current CfE discussion and rationale is an important issue for such a 'thinking space'.

There is an individual and collective human aspect to how this agency of thought guided by a particular worldview and solidified as mindsets, can impact business efficiency. Mindsets expose philosophies. They are articulated by attitudes and behaviours, like dumping edible food. On other occasions, there may be failure to find alternative usage for what might be considered inedible food (e.g., vegetable cuttings). Hence, within the practical setting of a food SME, owner-managers

may find it challenging to encourage kitchen staff to adopt new habits such as: *targeting* key food loss areas, *measuring* food waste and *acting* to prevent further wastage. This TMA process is laid out in Figure 6 below. When returning to the example of vegetable cuttings, there may be innovative potential here for ‘food in another form’- such as stews or soups. I have raised this subject because of its bearing on the philosophy of support related to this Case Study. In this instance, the example of HaFS organic resource waste also shows how the lack of cooperation involving staff teams and owner-managers could be costly. In summary, if tackling food waste is not a shared priority, it follows that staff uptake might be slow or at best tedious.

Figure 6: TMA and the Business Case against Food Waste



Source: WRAP, (April 2018).

It is worth mentioning that human beliefs emerge from held individual philosophies that (collectively) maintain socio-cultural norms and professional practices. Moreover, these may feed organisational culture. In terms of food waste action, they may translate as ignorance, lack of trust, knowledge exchange and the absence of collective agreement to support business transition.

Papargyropoulou, Wright & Lozano et. al., (2016:17) comment on how the lack of joined up thinking and collaboration, even across HaFS' departments might be:

' . . .another contributing factor to food waste generation due to poor communication and coordination between the different departments in charge of bookings (sales department), food provisioning (purchasing department), food preparation (kitchen), and operations (waiting staff). This was especially relevant in instances where changes are made to the initial booking.'

A closer look at the above statement suggests that there is an internal organisational aspect linked to people, their assigned work roles and applying business thinking. Effective coordination or any disconnect may often be explained in terms of philosophical language such as lacking 'ethos' or 'spirit'. Thus, even at the risk of being considered immaterial, these rudiments could still preclude a business transformation agenda. This suggests that they constitute a latent arena of influence, power and impact in HaF settings. The example further supports the argument that material resources may not be the only waste flows in the food waste narrative. Ideology, perceptions and values may actually reveal information waste flows and deeper mechanisms at work. Perhaps, by failing to investigate this within the food SME context, we jeopardize the business transformation agenda requiring collective progress for collective impact.

In reviewing the problem of waste in the HaFS sector, Papargyropoulou, Wright & Lozano et. al. (2016:335) approach the argument from a position of culture impacting food consumption and waste generation. Their conclusion seems to resonate with Zwier and Blok in calling for an appropriate conceptual framework. These researchers point to its crucial function to connect ' . . . biophysical flows with social and cultural practices that define research problems in fields that have in the past focused either on the material or the social aspects but have fallen short of connecting the two.'

We can be grateful for the insight of these writers since they are helping to make the point that in terms of a CfE, a philosophy of sustainable business is not just about considering matters of the biosphere or the value of natural resources and applied innovation. According to the above argument, the so-called 'softer' aspects of society help to determine the value of enterprise itself. This is especially with respect to the notions of business environment (literally) and, to the cause of the human collective which certainly surrounds enterprise and also animates it. Therefore, this is an early indication that business can be devoid of its fullest meaning and fall short of its true profit. Let us now look at philosophy in terms of supporting food SME participation in CE practice (essentially, moving towards a CfE).

It is helpful to look at these philosophical aspects because of their overall significance. A number of researchers have already established a clear relationship between food waste and philosophical aspiration for more circular business (Vilariño, Franco & Quarrington, 2017; Teigiserova, Hamelin & Thomsen, 2020). Thus, linking food waste to a CE raises the argument for a CfE. These concepts are sometimes associated with the notion of 'zero-waste' impacting the bio-economy, as investigated by Zwier, et al.,(2015) who are not shy in raising important points about the human responsibility factor.

The following discussion addresses some aspects of the philosophical layout in this research. It helps to explain the integrative aspect of the Study's philosophical framework which is summed up in the Chapter's title; 'business *within* Community, not Business and community'. The writing format here is deliberate in order to emphasise the difference between the whole (i.e., 'Community' and the subset (i.e. Business). This matter is presented in greater detail further on in this Section.

At this point in time, we move on to the primary concepts in this Study. They all have important standing in contemporary sustainability arguments affecting business and the marketplace as a whole. These are the concepts of: food waste'; moving towards a CfE'; 'food SME resource management' and, 'cross-sector collaboration (associated with supportive people and agency partnerships).

As previously explained, conceptualization exists and thrives at the level of thought. From this, we can gather that business concepts are representations of fundamental perceptions, which are tied to philosophical ideals that we may hold. In the case of this research, identifying the concepts which are central to this Case Study was fairly straightforward. Working through their meaning, applicability and interrelatedness was mostly facilitated by the literature review and face to face discussions with participants in this study.

However, there was still a need for deep thinking and philosophical considerations on my part, as a researcher. This process included uncovering ontological and epistemological assumptions behind the ideas and their meanings. This helped in creating a philosophical meta-framework for examining and hanging the major concepts related to promoting support for regenerative HaFS enterprise.

When it comes to the notion of 'zero waste' Zwier et. al's research forms part of the growing contemporary critique that present the 'zero waste' goals of a CE as at least a valid *ideal*. This is not only because they entertain questions around the practicality of the idea. They go further in highlighting that much of the debate excludes any thinking space for a philosophy of both abundance and of wastefulness. With respect to the latter, they shed light on the thinking around CE as rooted in current thinking about a 'restrictive' economy.

I have referred to Zwier et. al's (2015) work mainly to highlight these researchers' acceptance of a place for philosophy in the debate about sustainable business, as opposed to the more familiar discussion at the level of theory. Having established this, the thinking constructs and affiliation around the concept of waste are still intriguing. One group of researchers; Sirola et.al. (2019:1) embed waste aversion within a socio-cultural context. They inform us about the Japanese anti-waste ideal of 'Mottainai', which is associated with the '...regret of wasting something valuable'. Admittedly, this highlights the preferences of the Japanese consumer. But there are still implications for exercising a business philosophy through resource management. This is because these researchers view culture as a whole construct which determines the 'meaning' of waste- whatever the resource and whatever the application.

Therefore, although not directly spelling out philosophy, Sirola et. al. (2019) provide us with hints about some kind of wider socio-ontological framework behind their argument. It is true that they stick to the realm of theory by first positioning the discussion within current ‘theories of practice’ about resource sustainability. However, while stopping short of pinpointing philosophy, the onto-epistemological assertions may be seen in their commentary about ‘. . . how people make sense of the surrounding world.’

4.5.1 CfE and Philosophy

In referring to Diagram 7 we may argue that a CfE is about a teleological process. This means it is locked into purpose and dynamic design for business that does not destroy the natural environment or jeopardize human wellbeing. In this case, any imperative for change would not be limited to the business sphere of either corporate or food SMEs. It would be informed by conviction about food value, stewardship principles affecting our environment, essential purpose behind business to flourish, and the socio-political context which governs all these aspirations. It is not surprising that in the UK, the policy shift towards circularity is backed up by a realm of EU and national legislation.

Henningsson et. al.(2004). argue that philosophy is expressed through our mindsets as individuals. In very certain terms, they were implying that individual attitudes and behaviours are inextricably linked to barriers to change.

Henningsson et. al. (2004: 507) offer us a description of what is definitely needed in these scenarios: ‘Procedural changes are the changes that change the approaches to thinking and acting within organisations. These require a dedicated focus by managers and the training of personnel in waste minimisation, in order to effect change’.

This is a gripping argument. If applied to a HaFS enterprise it presupposes that there must be a fundamental shift in the thinking of the owner-manager and, by extension, other decision makers in the business. Otherwise, how else would these ‘procedural changes’ actually happen and maintain momentum?

There is another point to be made about the philosophy behind the concept of food SME resource management. This connects us with comments shared earlier in the Introduction about how corporate food entities are approaching the challenge of food waste management. In this case, the main consideration is that smallness is not an excuse for management inefficiency. This point may seem unpretentious. However, when speaking of food SMEs and their relative 'smallness', this issue may in fact be an opportunity to do business differently. I have already made an earlier reference to the UK Federation of Small Businesses which endorsed this principle a decade ago by publishing their 'Waste Review'. We should note that the EU (2013a) also published a policy document entitled 'SMEs, Resource Efficiency and Green Markets' although not limited to food, it exposed the crux of the matter.

Likewise, Garcia-Garcia, Woollard, & Rahimifard (2015) are not confined by either the SME or HaFS' categorization when they present a very structured nine (9) stage outline for addressing waste. They also propose some 'optimal management options' to food waste management. Finally, we still need to keep in mind that HaFS are diverse constituents within the UK food sector. It would be interesting to see what the methodical style proposed in this case would mean for HaFS that are SMEs. I raise this point especially since these enterprises are defined by smaller staff teams (less than 250 persons, with micro-businesses having less than 10 employees).

4.6 'Deep and Wide: Two Main Philosophical 'Divides':

Having examined the individual concepts in the Study, we can look through the hybrid lens which is a combination of Systemic Thinking and Critical Realism. This framework represents the two main dimensions of depth and width. It is an intentional construct which serves to link the concepts that represent the Study's overall topic. From a philosophical standpoint, these concepts may be delineated sequentially as:

- 1) 'people collaborating across-sectors'
- 2) 'supporting food SMEs (HaFS), to fight waste'
- 3) 'adopting food waste management' and

4) 'towards a CfE (more regenerative business)

As a basis for combining these two dimensions, I would argue that a number of researchers have already been making claims about the shared elements of ST and CR (Mingers, 2000; Karlsson in Edwards, Mahoney & Vincent, 2014; Armstrong, 2018). In particular, Armstrong (2018:2) focuses on a type of supportive role which Systemic Thinking may offer to CR. He quotes Bhaskar in stating it '... attempts to understand the world are separate from the world itself'. This is much like applied ST (via SSM) whereby, according to Checkland (1980) we may consider the system '...as a means to organize our thinking in order to gain understanding and address a situation perceived as problematic'.

When commenting about the environmental disruptions and other challenges affecting humanity, Gustave Speth shows his resolve in stating '... I have come to the conclusion that our largest problems...are deeply rooted in our fundamental political-economic system' (Gustave Speth, 2015:9). Almost immediately, this perspective resonates with CR assumptions about mechanisms of causality which influence a particular issue or event. Additionally, in noting Gustave Speth's clear commitment to systemic thinking about these concerns and proposal of a 'Next System Project', one can argue that he is thinking along the lines of the 'deep and wide' philosophical stance proposed by this Study. However, in true CR tradition, it would be thought provoking to probe deeper to find out what mechanisms might be responsible for the flawed political-economic system which he opposes.

Therefore, within this Study, ST and CR signify two main philosophical divides with some opportunity for the confluence which seems so lacking in the concepts presented in this Study. There is potential for a measure of synthesis. As a result, the framework operates as an interpretive lens for reviewing the correlation across the Study's primary concepts and, for overall analysis.

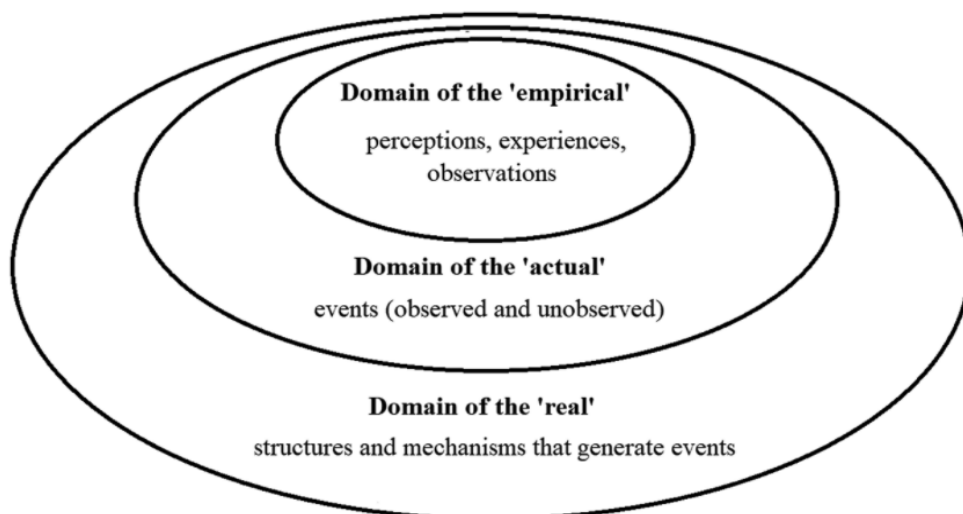
4.6.1 Critical Realism: The First Philosophical Divide

Moving on from these points, I should add that the discussion on Critical Realism in this work is not meant to overpower but to complement basic principles of

Critical Thinking and, the Reader should note CR's shared synergies with Systems Thinking itself. Put succinctly, Critical Realism is not proposed in this Study as an exact theory but as an available backdrop for its CST and ST features. Furthermore, this philosophical commentary is meant to add to the discourse, with SMEs in mind. The intention is to encourage conversations for a socio-ontology about the Study's main themes. In any case, CR's search for meaning (by uncovering phenomenon and delving beyond layers to other domains), is already assumed in the essence of the research method.

This Study's first philosophical dimension therefore only makes a broad reference to Critical Realism. CR may be described as a meta-narrative that explains reality as a stratification of layered existence. Figure 7 below shows this CR dimension of depth, by explaining reality in terms of the empirical (i.e. superficial experiences and perceptions of the individual), the actual (i.e. causality- having to do with events triggered by underlying mechanisms) and, 'the real' which is usually interpreted in terms of the social or physical mechanisms themselves at the source. CR is therefore able to combine causality behind issues and occurrences with a mandate for change (Archer., Bhaskar., Collier et. al., 1998; Archer, et. al, 2016).

Figure 7: The Stratification of Critical Realism that facilitates the Dimension of Depth



(Source. Hoddy, 2018)

According to this description of CR, it may shed light on deep mechanisms and institutional causal powers impacting food SME status and, their capacity for initiating major business change, such as embracing CfE practice. Interestingly, CR may also help to explain root causes behind why resource depletion and mismanagement would be perpetuated or accepted as business norms. This is discussed below with respect to the Anthropocene Era. In this Study, I have also chosen to reference the CR tradition much more simplistically. This is because the uncovering of phenomenon, delving beyond layers to other domains represent the basic trajectory of conducting research. However, with reference to Figure 7, I emphasise that this simplicity is in the added value which CR offers regarding environment and context, in the system being studied. This is being utilized here as a support to Systemic Thinking, not as an exact theory.

The second divide acknowledges the *modus operandi* of systemic thinking *vis-à-vis* the concepts which are on display. It looks at the overt relationships, inter-connections and acute management complexities that might exist in this particular situation. For example, cross-sector alliance inevitably flags up peculiarities. These might be a result of stakeholder diversity and, individual and institutional commitments to particular disciplines and praxis. This second divide therefore allows assessment of complex scenarios, based on Systemic Thinking (ST) (Checkland, 1980; Arnold & Wade, 2015).

In looking at the first dimension, we can consider that it appeals to explanation and foundations. As a result of this, it aligns well with a critical realist ontology where historical antecedents (underlying 'generative mechanisms') are believed to create a scenario or particular phenomenon. As mentioned earlier, according to the Critical Realist view, there are stratified levels to reality as existence and notably, this exists whether or not the phenomenon is experienced by human beings. In other words, Critical Realism establishes that ontological objectivity is independent of whatever our belief system but the process of uncovering deeper levels of reality is still open to epistemological relativity (Archer, Collier & Porpora, 2004). 'This means that our engagement with knowledge, our understanding and how we come to know things is multi-faceted.' These learnings may be exposed by impacting social and political factors which demand change. As a result, they eventually become observable.

Therefore, looking closely at the subject of this research, Critical Realism may even help us to examine what ‘historical antecedents’ exist at the radix of food SMEs *not* being perceived as key players in green business. It might at least explain their need for collaborative support in order to implement business change, simply by nature of them being ‘SMEs’. This status is an obvious contrast with holding powerful food corporate status.

4.7 Why Critical Realism?

Critical Realism acknowledges the distinctions between the social and natural world, but it also confesses to inter-relationship. In this respect, both food waste and collaborative efforts for food SME business change are already operating within the context of the ecology- our physical environment. Moreover, this interface is looking towards valuing food resources, while also limiting the carbon footprint on the physical environment and generating business savings, which is associated with food waste. Mingers (2000:1264) hints at the CR implication for methodology by commenting that it ‘. . . encompasses both hard and soft (critical) approaches’.

Critical Realism is therefore being used as an honest reference point for the philosophical areas of this Study. Meaning that it serves by offering perspective and insight and, in giving space for the ‘primacy of ontology’ (Bhaskar in Edwards, O’Mahoney & Vincent, 2014:vi). For example, this approach would view cross-sector collaboration of TRiFOCAL as an open social system operating within the wider context of changing social attitudes to food waste and also, how this might be tackled by business and the rest of society.

According to Bhaskar (in Edwards, O’Mahoney & Vincent, 2014:vi), CR boasts a ‘laminated system’ which is based on 7 levels of scales. These may be aligned with human functions (individual through to institutional and global). It is worth making the point that this range allows elements associated with interpretivism since it pays attention to human psychological factors. When speaking of collaborative action to support SME transformation in tackling business waste, these may be lined up progressively, according to the following areas and specific examples:

- a) Motive & Depth psychology (sub-individual)
- b) Individual profile/ personality (aware individual)
- c) Micro-Small-scale interaction (business/ neighbourhood level)
- d) Meso-Functional roles and practices (green supply chains including food SMEs. These are acting on the shift to CfE business practice)
- e) Macro-Large wholes (More extensive, comprehensive green supply chains)
- f) Mega-Geo-historical stretch over space and time (UK Food SMEs & responsible business supported by 'smart city' technological and other constructs)
- g) The Global/ planetary whole- growing imperative to shift to Circular Economy practice and imperative of global food waste reduction, in the interest of human & ecological survival

According to this progression, the notion of holistic causality offered by Critical Realism assumes that there is inter-relationship and reciprocity in the social world. This could effect change. In this transformation, there could be potential support for food SMEs that are fighting their business food waste. However, by extension, holistic causality also explains the need to acknowledge cross-sector stakeholders. This is even in situations when certain entities might not be actively cooperating. In keeping with Bhaskar's argument, this viewpoint connects holism with systemic thinking. The important point here is about similarity between the two constructs which are both given to discovery, understanding, innovation and transformative changes, (Bhaskar in Edwards, O'Mahoney & Vincent, 2014:xv).

This Study takes Burrell's (1979) view of a paradigm as a belief system comprising a distinct grouping of concepts for viewing and making sense of the world: '*what exists?*'; '*how do we know it exists?*' and; '*how should we engage with what exists?*'. In this case, the Critical Realist paradigm may help to facilitate food SME cooperation with community stakeholders, in order to address food waste. Critical Realism would therefore be giving mental space for examining 'real world' socio-political agendas. For example, the food waste and SME elements in this Study may be interpreted in terms of current efforts against

environmental degradation and abuse of other natural resources (such as land and water).

In view of the above discussion, it follows that there is growing demand for inclusive business practice. This might also explain the rise of qualitative socio-ecological assessment and importance being given to the narrative around stakeholders (Freeman in Stieb, 2009: 405; Wang Liu & Mingers, 2015). From this perspective, research about food waste and the collaborative potential of SME/ community stakeholders would lose out on the richness of explanation and detail, if it was based on purely positivistic, deductive reasoning. Hence, this writer joins with Lawson (2006: 493) in his point that Critical Realism often rejects the limitations of formal, reductionist methodology.

Coarse (in Lawson, 2006: 490) goes further to inform us that a Critical Realism lens may be connected to the heterodox leanings of a circular (as opposed to a traditional, linear) economy. Lawson (2006) is himself emphatic in defining mainstream Economics as something which: ‘. . .floats in the air and which bears little relation to what happens in the real world.’ On that note, Lawson (2006) eventually reveals his heterodox sympathies by calling for a new ‘social ontology’ for the business sphere. Though some may consider this viewpoint as extreme, this researcher attempted to respond to this call at Diagram 7.

Critical Realism also rejects any rigid conventional categorization of research. Its paradigm and philosophical underpinnings imply the need for transformation at two levels. With reference to the London TRiFOCAL campaign, messages such as: ‘Stop Food Waste’ and ‘Food Matters Live’ are a definite call for greater food resource efficiency. This would include SMEs and members of the local community- not just corporates. Secondly, this agenda may be applied to adopting new techniques and approaches (such as the SME/ community collaborative focus of this Study), in order to help bring about necessary change.

Moreover, the Critical Realist maintains an open-ended stance to the prospect of external knowledge helping to fuel change. Fleetwood (2014:7) refers to this as a posture for transcendence. Again, Critical Realism is here ‘. . .characterized by stratified, emergent and transformational entities, relations and processes’. So, for example, this paradigm could furnish profitable reflection on the part of the

SME owner/managers, consumers and other community members. This is especially in making a case for food resource efficiency. Thus, it could include argument as to why food should not be wasted; the ecological burden of waste on landfill and, the moral implications for being wasteful with food which could be redistributed to feed hungry people.

4.8 Systemic Thinking: The Second Philosophical Divide

Since food waste has been deemed ‘. . . without being hyperbolic, the mother of all systemic problems’ (Hassan, 2015). It seems logical to assume that systemic thinking would also inform approaches to addressing it and supporting business change. This is a critical point when considering the framing for the collaborative and cross-sector elements in this Study. This is also where we can entertain the idea of a circuitry of: individuals, institutions, businesses and other agencies, working along with the hospitality sector, to enable a shift towards more ‘waste to resource’ enterprise. In real terms, it demands the basics of business engagement, functional inter-linkages, information flow and knowledge exchange among stakeholders and across-sectors.

This dynamic process features what may be described as a second philosophical divide. The divide may be illustrated as a ‘horizontal expanse’ representing not just the scope and latitude of people cooperation but most importantly, the collective aspects of holism and integration. These elements are all are bound up in enabling CfE progression. This second divide is also firmly rooted in Systems Thinking. Systems Thinking allows us to create representations or models of real-life situations that are problematic, so that improvements can be made (Checkland,1980,1983; Checkland & Scholes,1990). In this case, modelling a circuitry of change (as proposed in RO 3), allows us to envisage how respective councils, NGOs, customers and other businesses might support HaFS in ‘going green’. From a practical standpoint, this would include dealing with surplus food and any organic waste by transforming their business operations.

4.9 Why Systemic Thinking?

As the second philosophical divide, systemic thinking also contrasts with pure logical empiricism and reductionist viewpoints about reality. As an aspect of systemic thinking, holism definitely veers away from reductionism. The latter approach to epistemology represents objective measurement. It relies heavily on a quantitative approach to knowledge and data gathering. It is worth taking note that this also represents the more traditional paradigm which is usually connected with business enterprise and its trusted macro-economic context. Unfortunately, sometimes this perspective, may pay less attention to joined up thinking about business, people and the environment. This would also include instances where shareholders and customers are not solely perceived as market players but as actual stakeholders in sustainable enterprise.

In terms of philosophy, these ideas represent a myopic understanding of 'profit' natural and other resources when they are only defined in financial terms. Once again, it should be emphasised that quantitative reductionism could present difficulty for this Study's subject matter, if food resource security was solely defined by finances. This is because as a business approach, reductionism would be more attuned to short term gain of linear thinking. It is sometimes characterised by dichotomizing purpose, from cause and action. This may conflict with the delayed gratification for the natural cyclical pattern of ecology which is fundamental to a healthy green economy. Over preoccupation with reductionism could also lead to imbalanced presuppositions about the inevitability of lack-hence, discounting any expectancy or potential for nurturing abundance.

In short, this approach is represented by an epistemology that promotes the ascendancy of the economic narrative over relationship (including with the environment) and the potential for collective action and impact (as presented in this research topic). Yet, in their argument about 'relationships as the key to a more resilient economy', Schuller & Lee (1993) point out that: '...behind every financial transaction there is a relationship'. It is the relationship that determines the long-term success and impact of what goes on in terms of finance and money.

As a growing movement, the notion of 'Business for the common good' supports this argument for relational enterprise. It might also be interpreted as a type of systemic thinking in that it associates business with the prosperity of the whole of society. This notion is part of a major value shift taking place to effect change in commerce, enterprise and economic circles (Sharp Paine, 2003; Colander et al., 2004; Hoyt-O'Connor, 2007:209). The so-called 'value-shift' is supported by a global thrust for commitment to ideals such as: shared value, stewardship principles, relational analytics and virtue assets being applied to business (Malloch & Mamorsky, 2013; Higginson; 2012;77). They join with Featherby (2009) in his call for 'Virtuous Business'. Higginson (2012) candidly explains that '... Virtues are less abstract than values because they are rooted in persons'. Klein (2005:5) defends this approach with an interesting comment that it represents '... neglected areas of epistemology, for example, the connection of knowledge to wisdom and understanding.' Colander et al. (2004:485) are equally frank about these epistemological developments. They claim that the transition entails '... movement away from strict adherence to the holy trinity—rationality, selfishness and equilibrium—to a more eclectic position of purposeful behaviour, enlightened self-interest and sustainability'.

Therefore, while the phrase 'business for the common good' suggests a knowledge base in Moral Realism and Virtue Ethics, campaigning is not necessarily limited to such sentiments. The EU case for an economy based on circularity confirms this. Terminology such as 'cradle to cradle', 'zero waste' and 'closed loop' clearly suggest this and there is also some impression of movement that is embraced in this Study's title. These terms indicate the need for a new business orientation based on deliberate purpose, design and ultimately, resilience. These sentiments are part of the rationale behind this research.

In the UK, there is a now a thrust towards including 'pro-social soft skills' in business education, apprenticeship and training curricula. It could be argued that sheer pragmatism and urgency are pushing this contemporary campaign at both the state and EU levels. Even so, the social responsibility approach (e.g. demonstrated in cross-sector collaboration among groups and networks, such as TRiFOCAL) is also progressing. As noted earlier in this Study's introduction, it is

already influencing the food corporate sector. This means that all three sectors are engaging around this crucial topic of food waste.

4.10 Uniting the Divides: A Proposed Social Ontology for Food SME Regenerative Business

Against the backdrop of the above discussion, we can see that both philosophical viewpoints are important for the complex food waste scandal and the application of meta-theory. In using the term 'meta-theory' here, I am supporting Hoddy's (2018:113) reference to a wide area application beyond the traditional confines of what we call theory. This is because it '... concerns aspects and matters in the philosophy of science, ontology, epistemology, causation, methodology and so on, which are all implicated in social scientific research.' I would therefore argue that as individual meta-theories, Critical Realism and Systemic Thinking together produce a meta-narrative which is appropriate for this research context. It may be seen in some shared onto-epistemological assumptions at the base of the scheme of CR and ST beliefs and in the capacity of reality to also change.

These assumptions create a composite teleology that signifies the important role of purpose in business and management. They lend significance to the concept of purpose (axiology). It is applicable to meaningful, value (and values-laden) enterprise. In plain speaking terms, this means that purpose is fundamental to conducting responsible business, towards CfE outcomes.

As a result of these shared components, joining the CR and ST 'divides' into a meta-narrative might help to enrich our philosophy for supporting HaFS regenerative enterprise. All this with the understanding that transformation in business and management is possible Diagram 7 proposes how the union of these two philosophical perspectives may contribute to a socio-ontology. This would pertain to collaborative support for food SME resource stewardship'.

Overall, this Diagram submits an outline of important aspects of this proposition. For example, a close up of these common CR and ST onto-epistemological assumptions suggests plurality, diversity, complexity and a progressive inter-relatedness. The latter is possible because the framework also incorporates a dynamism which we can assume is represented by the interaction of institutional

and organisational business exchange. In terms of praxis, this even reaches to the level of individual stakeholder representation. In other words, the elements at the onto-epistemological radix are literally radical in nature. This is because they have the potential to impact individual and institutional support for HaFS (here, categorized as food SMEs). Of course, we must also acknowledge a socio-political and ecological environment.

We should note other characteristics arising from this philosophical hybrid framework. For example, the Critical Realist notion of transcendence and ST attention to complexity. For the sake of clarity, Archer, Collier and Porpora (2004:27) provide a general overview of transcendence as ‘. . .implicit in the basic, critical realist distinction between the intransitive domain of the real and our transitive knowledge of it. Transcendence is always built on, though never reducible to an immanent ground made up of pre-existing knowledge, including theories, beliefs, tacit knowledge and traditional practices.’ Thus, we may argue that transcendence may give birth to open-ended possibilities that may help to provoke food SME business innovation. It is this penchant for creative re-modelling which Braungart & McDonough (2009) introduce in their landmark book (about how waste can be a resource) entitled; ‘Cradle to Cradle: re-making the way we make things’.

Archer (2004) and her team of academics are unapologetic about their perceived linkage between transcendence and spirituality. At least this view lines up with popular language in reference to the ‘spirit’ of enterprise. It also reverberates with other bandied terms such as ‘the spirit of innovation’ and the expectation that these may impact not only HaFS but also their staffing, customers, extended supply chains and other associations.

In the meantime, while commenting about the relation of complexity, epistemology and the limits of prevailing postmodern thought, Fiddes (2013:131) offers critique that:

‘Elements of post modernity may be traced in complexity theories: there is an interest in a diversity of local rules which are only loosely connected with ‘universal’ laws of physics, and the world is conceived as a cluster of fluid networks, opening up differences, and open to many avenues of development.

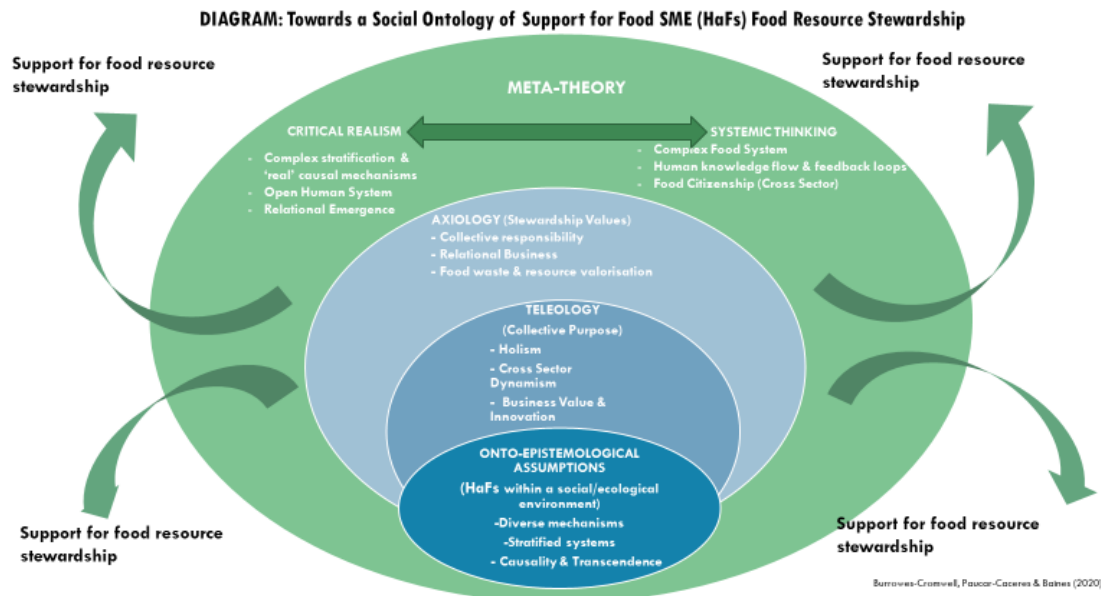
Modernity persists in a certain confidence in the self's ability to investigate and classify this complex world, yet the recognition of complexity also creates an awareness of limits on human knowledge, and this prompts a certain caution and even humility.'

Although more an expression of 'micro 'than the meta-narrative', Fiddes (2013:69) does offer further insight about what may contribute to the core characteristics of ethical green business and collective, cross-sector action for enabling change (as in the case of tackling SME business food waste). He refers to responsibility not just for 'the 'self' but also for 'the other'. It is interesting that he promotes the idea that 'Self and subjectivity is thus established through responsibility to the other . . .the infinity of other persons visited upon us in ethical experience'.

It is also worth noting that I have used the stratification doctrine of Critical Realism (CR) to demonstrate the practical value of the critical realist viewpoint in allowing us to 'dig deeper' when conducting research. Again, the main reason for Diagram 7 is to contribute to the development of a social ontology to inform engagement and collaborative support for SME regenerative business, in the HaFS sector.

Moving on from this, there is progressive inclusion of the axiology component. This area relates to agreement on both values (i.e. the essence of significance, instrumental merit and worth) and value (i.e. the basis on which exchange is determined for profit). There are definite nuances surrounding ethics and relational business in this dimension. In keeping with this Study's subject, these may be seen in practical business value ascribed to food waste. The fundamental concept of stewardship may be seen at this level and more will be said about this later on.

Diagram 7: An Interpretive Lens towards Food SME (HaFS) Food Resource Stewardship



In looking at Diagram 7, the outer layer may explain meta-theoretical positioning of how critical realism and systemic thinking relates to the overall Study topic. The two contributions together confirm an endemic problem situation. It is defined by complexity within *both* the human business relational and food systems. One might even add that relational business emerges as a factor of food citizenship and with cross-sector appeal.

According to this view, food citizenship could be considered as supporting the philosophical stance of 'business *within* Community' and not 'Business and community'. Although not usually pointed out, it would appear that the latter assumes parity between enterprise and its much wider societal context. For example, in their booklet on Food Citizenship as a grass roots people's movement, the New Citizenship Project (2017) find a synergy between green business and the democratic principles which can nurture the security of green business and extended community resilience. This requires a 'shift' from the consumer mindset to the citizen mindset local food production, exploring reverse logistics and supply chain innovations that may allow food waste repurposing or other CfE practices. As a result, food citizenship may bolster the participation of HaFS and other food SMEs in more resilient green business.

We should also note the relevance of Critical Realism in the context of a narrative of meta-organisation where institutional mechanisms and activating power can impact change. So, for example, this may be seen in complex management situations, involving diverse institutions with various levels of influence. A good example would be a joint committee in charge of a massive community campaign or outreach (such as stopping food waste).

Checkland (1980;1983;1990;2000;2006) referred to such representations as 'holons'; or as human activity systems. On this basis, we might consider, both the food waste scheme and its management (or lack thereof) as holons. In the first instance, we may argue that the proposal of a CfE details the inter-connectedness, feedback loops and inter-relationships of classic Systems Thinking. This requires some appreciation that food waste could be symptomatic of an already broken food scheme. It also gives entrance to the idea that perhaps we should not only be interested in the material flows of waste but also the information flows which undergird the working system. This latter part is consistent with Checkland's concept of a human activity system. It helps to bring the management issue into focus and provides the basis for this case Study on cross-sector collaboration and partnership impacting food SME business change.

We can conclude that Systems Thinking & Critical Realism address themes of power & dynamism affecting HaFS inclusion in food waste reduction & more circular business practice. This is because they provide a collective thinking space. We can now look at the significance of the divides as an invitation to investigate conceptual depth and to analyse conceptual expanse.

4.11 A Philosophical Reflection on Critical Realism and the Anthropocene Era: Investigating Depth

We have established that Critical Realism responds to the 'why' and explains the existence of particular observable facts. It allows us to dig deep in searching for causal mechanisms that give birth to these particular issues. When examining the prevailing 'take use discard' linear practice in business, it is interesting that the Anthropocene factor is one of the main contemporary explanations for the current bad behaviour of enterprise, including food businesses. The

Anthropocene factor translates as a human centred approach to enterprise that exploits the ecological biosphere and natural resources. As this description is more wasteful and abusive to the environment, it provides a contrast with the CfE approach which holds to designing out waste at all levels of food production and handling.

4.12 The Anthropocene ‘Era’ of Concern: High Time for Change

Attention to business philosophy is therefore crucial for the current economic change agenda. There is a budding debate about this in relation to ontology (Zhu, Geng, & Lai, 2011; Zwier, Blok & Lemmens, 2015). The conversation shows grave concerns about environmental degradation in the so called ‘Anthropocene Era and, its primary focus is about what should be done to save our planet from a looming dystopian future (Zwier & Blok, 2017). One should note that this philosophical approach is very ‘anthropos’/ human-centred. There are different interpretations to this view that the natural world exists purely for the use and benefit of humanity. The problem with this perspective is that it can be a self-fulfilling prophecy to support environmental degradation or other imbalance, once commercial gain and financial profit are in the works.

We can understand then why not everyone is fully convinced about the argument for sustainable development, and the practicality of Circular Economy (or by extension, a CfE). For example, Mobbs (2018) and Walters (2019) recall the thermodynamic laws of physics to explain the limitations of the Circular Economy (CE) model. If applied to the food waste narrative, they would point out that nature’s inclination to entropy and dissipation of energy would not allow a perfect cyclical flow in banishing food waste. Korhonen, Honkasalo & Seppälä (2018:41-45) note this too and provide an overview of another 5 limitations to the philosophy of what some determine a CE Utopia.

In attempting to make the vital link between philosophy and business practice, I have presented brief reflections below about how their views may affect SMEs in the HaFS sector. This is in the context of attempting waste to resource and other CfE measures involving food. It should be stressed that in each scenario there are implications for efficient information flow, organisational joined up working

and, people management - all significant factors for this project. Therefore, according to Korhonen et. al. (2018), there could be limitations of:

-Spatial and temporal boundaries affecting food supply chains- this is in view of the fact that food is a highly perishable item with limited shelf life. Therefore, attention to storage conditions and delivery timeframes (with implications for transportation along the supply chain) would need to be paramount, to avoid food loss and wastage. Otherwise, we should expect disruption in the 'closed loop' goals of any CfE operational goals.

-Physical economic growth and the so-called 'Jevon's Paradox' of efficiency could be problematic for a CfE. In this case, price lowering arising from improved competency or productivity might contribute to an increase in new food purchasing and, eventual material wastage. This could be exacerbated by the prevailing culture of consumption. According to this view, some aspects of 'Jevon's Paradox may be played out at a smaller scale when the individual householder (or restaurant Chef) make bulk purchases (e.g., vegetables). These may be underutilized in menu planning, eventually rot and discarded. Similarly, the temptations of 'all you can eat' restaurant scenarios sometime encourage customers to pile their plates high- resulting in an abundance of leftovers. This kind of avoidable food waste means money being thrown away in the form of both customer and business funds.

- Path dependencies and so-called 'Lock-in' - acknowledge the competitive nature of enterprise and the potentiality that any disruptive innovation for addressing food waste, will likely result in early benefits to those businesses that make early changes. In this scenario, the CE drive for re-use, re-cycling and even re-purposing food could mean practical difficulties for any enterprises which are overly dependent on any one area of material flow or supply. One example of this could be cafés that rely on sourcing food from local or other surplus (as represented by one establishment in this case Study). In strict business terms, this could be dangerous dealings if sources dry up. 'Lock-in' could also occur when HaFS owner-managers reach a plateau at a level of business changes, as opposed to moving on to next stage re-modelling or transitioning.

- Intra-organisational vs. Inter-organisational Strategies and Management – This factor is also relevant to this Case Study in echoing the complexities of multi-stakeholder settings. The argument here is that even with the best intentions of cooperation, human dispositions, behaviours and poor choices will at some time jeopardize smooth management processes. The food sanitation and waste disposal regulations of EHPs come to mind here when stipulations from local Councils may prove impractical or otherwise inconvenient for HaFS, swamped with regulations and compliance demands, while still striving to make their businesses work.

Lastly, there is the issue of:

-Defining Physical Flows – This is a tricky area because of values and value attributed to materials in the food waste flow. It is also an opportunity to show where philosophical divides may exist around the very definition of waste. If the concept of waste is in flux, determining what is valuable food to be retained and what is not valuable may be an ongoing conversation for kitchen staff and their customers. This could be associated with individual food heritage and ethnicity. It may also be a customer satisfaction issue, as with children rebelling against meal choice by parents or otherwise, contributing to restaurant plate waste.

Philosophical domination is essentially the ‘power to define’ concepts and what is considered valuable. Some might even argue that this extends to what is currently trending as ‘sustainable business’. For example, the hegemony of western values and geo-political power over the two-thirds world could affect food security (Petetin, 2020). This power differential may take another form for HaFS that are SMEs- impacting supply chains, purchasing power and, food selection for menu preferences. Thus, while expanding choices for some, in reality, choices for others may be limited. I have mentioned this point because philosophical disagreement and underlying assumptions about topics like ‘what constitutes wasted food’, reflect cultural variance and, cultural variance is often a sign of conflicting world views and ontologies.

Painter-Morland, Geert & Ornati (2017:308), contribute to this discussion from the position of dissatisfaction that the business case is still central to the discussion about sustainability and the triple bottom line. They base their argument on the

metaphors and etymology about the topic and this research team is candid in stating: 'Ultimately, sustainable development should be motivated by a concern for flourishing and less preoccupied with the 'business case'. The implication is there may be other 'cases' for examination, especially since they imply that social values and morality could become generative mechanisms for responsible enterprise. It appears that nowadays, business practice is returning 'cap in hand' to what used to be considered the basics.

I am not attempting here to conjure up a false nostalgia of 'the good ole days' but sometimes, those days featured an appreciation for relational discourse. Likewise, practical business management (especially at the SME level) sometimes valued stewardship principles of 'oikonomos'. Interestingly, this was the root term from which the term 'economics' is derived. In their writing on the collaborative prerequisite for transformational business. Schultze & Lee (2009:24) posit; 'As everyone in business knows, you can't even make money without effective relationship, because markets and companies are, in the end, only groups of people working together.'

Some would argue that this borders on a spiritual world view defining business and its interaction with the rest of community. It is worth noting here that a number of academics and other thinkers from a mixed bag of disciplines are already bravely crossing this threshold (Archer, Collier and Propora, 2004; Warwick, 2015; Yoder, 2017). Yet, while worldviews are not usually openly declared in the sophisticated sphere of enterprise, the tide is now changing. At the very least, it seems there is a nascent outcry that business cannot continue as usual. Some have used this as a rallying point for heterodox economics and a fresh paradigm to support socio-economic transformation. For example, Praetorius (2015), puts forth provocative logic for a 'Care-Centred economy' and likewise, other academics have their heterodox say (Lawson, 2006; Mearman, 2012; Mearman, Berger & Guizzo, 2021).

By definition, heterodoxy opposes mainstream economic thought and its stoic, linear approach to causation and hierarchy. This includes acknowledging the rationale behind plurality and heterogeneity as major tracks for dealing with ecological problems. It is now fashionable enterprise to be concerned about

carbon efficiency, 'extinction' and the circular enterprise agenda suggests changing worldviews. These are providing a discussion platform about the rationale behind economic assumptions and (specifically) behavioural change'. Although there appears to be a vacuum of philosophical discussion. There is certainly an 'oughtness' behind resource efficient agendas and, promoting transition from linear to circular business.

According to this line of thinking, we can establish that in the context of this London Case Study, there are multi-cultural factors that would define food value and resource flows. Diverse cultures and ethnicities in London imply diverse food heritages and views about what constitutes food waste and how it should be tackled. Equally interesting is the reality that many HaFS in the SME sector are family-run businesses representing immigrant populations. As a result of these issues, the discussion about what constitutes food value and waste automatically widens.

Painter- Morland, Geert & Ornati (2017) continue to make their philosophical case that; 'Instead of merely criticizing capitalism for its current form, our challenge is to reframe our thinking in more positive ways and to help find our more social and subjective desires to find expression. It may be unlikely that we can escape the 'moral accounting' that underpins so much of our moral reasoning, but we can at least attempt to rethink its terms'. This is an important debate, but it is outside the parameters of this Study.

I have presented these aspects of the philosophical divide to make the point about a potentially helpful contribution for refining CE understanding and, CfE models of interpretation. However, this does not invalidate the need for changing our approach to valuing our food resources or food waste management in business or in the rest of society. What CfE does deliver are critical questions which can help us through the difficult process of shifting from linear thinking to business models. The aspiration is that these changes would be less harmful to humanity, flora, fauna and our general ecology.

Thus, *moving towards a CfE* (as expressed in the title of this Case Study) may be seen as a declaration for conscientious, practical adjustment and for food SME

business transformation. In this respect, I support the comments and conclusive reasoning of Korhonen et al. (2018: 42) in stating that:

‘But despite of limits posed by entropy and also despite of speculations on theoretical possibilities to recycle everything, it is very clear that in the current global linear throughput production-consumption. . .radical improvements can be achieved through the simple arrangement of the physical flows *toward a more cyclical model.*’

The point to be emphasized is that ‘radical improvements’ are not only necessary but possible. Pursuing these changes makes perfect sense, even without the intricate scientific details of the laws of physics. In a specific point about a philosophical ‘gap’, Zwier & Blok examines Heidegger’s argument surrounding the Anthropocene (Heidegger, 1977 in Zwier & Blok, 2017: 4). They too comment about the need for a new management ‘paradigm’ for sustainable business:

‘The Anthropocene is therefore not merely a description of a planetary condition, nor a prescription on how to deal with the (implications of the) ecological demand but has ontological bearing insofar as it concerns a mode of appearance according to which the world appears as managerial resource and, human beings as planetary managers. We can therefore say that the Anthropocene is at hand : it marks our contemporary encounter with things under the demand of “handling” or managing them.’

It follows that avoiding the costs, environmental dangers and managing the messiness of SME food waste are central to this research discussion.

Interestingly although not supporting all that Heidegger proposes about humanity as ‘dominant earth shaper’ and the Anthropocene (as an ontological ‘mode of appearance’), Zwier & Blok, (2017) still warn about an ontological ‘call’ to concrete change in the existing crisis of earth management itself. Thus, humanity should not only be ‘responsible’ (as in the case of the bandied CSR appeal) but *practically responsive* to a summons to stewardship principles. These assist in directing business purpose by tending and caring for the environment and natural resources so vital to enterprise and for existence as a whole. (Muwadzuri, 2014).

4.13 A Philosophical Reflection on Systemic Thinking: Investigating the Expanse of Complexity and Interconnection

As noted earlier, the second philosophical divide in this research draws attention to systemic thinking and the teleological aspect of a holistic worldview about interconnections and relationships. This is as these relate to a cooperative response to supporting food SMEs in tackling waste.

Teleology is the doctrine of purpose affecting life and the material world. Hence, systemic thinking would anticipate overt connections and acute complexities in the pursuit of such purpose. Another way of saying this is that collaborating to enable HaFS regenerative business may be ripe with teleological assumptions of purpose. These systemic 'lens' further support integration of business knowledge and praxis to design and purpose. Featherby's cautioning that 'Our finance reflects our philosophy' (2012:6) offers us insight. It is a telling statement that where we place our treasure is a true indication of our world view. Such purpose includes the intentions and expectations of business profit. Although it transcends financial gain, it does not have to be perceived as 'misguided altruism'. Of course, by the same token, if we are throwing away food despite financial and other business costs, the statement still seems valid.

4.13.1 Stewardship Values as a Dimension of the Philosophical Debate

I return here to the vital concept of 'stewardship' as a basis for regenerative basis. In terms of an actual worldview 'divide', this principle is still central to many indigenous philosophies. For example, this concept of stewardship is fundamental to the holism and the systemic thinking presuppositions of some Afro-centric, Hebraic and other eastern worldviews and has been upheld by their griots and their sages for generations (Sorley, 2011; Muwadzuri, 2014; Yoder, 2017). In terms of definition, stewardship *is* inherently business, demonstrated by tending and caring for a particular entity. It does not connote ownership, but it is assignment-based and therefore, closely aligned with a teleological philosophy of purpose. As a principle, stewardship contrasts with the existing western, post-modern philosophy and worldviews. Despite allegations of inclusivity, these sometimes seem intolerant of non-mainstream perspectives. Senanayake

(2006;91) takes issue with this philosophical 'orthodoxy' surrounding the contemporary sustainable development paradigm and other potential contributions:

' . . .the critical strength of the indigenous knowledge is its ability to see the interrelation of disciplines, and then integrate them meaningfully. This holistic perspective and the resulting synergism show higher levels of developmental impact, adaptability and sustainability than Western modern knowledge. Therefore, it is a very good source of readily available and already tested appropriate technology for policy makers to use in their planning process.'

By extension, this argument also suggests other conceivable inputs about sustainable business and cooperative ways of promoting regenerative enterprise. As such, it is another way of highlighting the place of ethnic heritage, moral realism and/ virtue ethics, as potential bases for collective action against business food waste. Moral realism may be defined as an objective basis for determining values, as opposed to the relativity of subjective opinion. Ironically, its appeal to fact-based, independence, correlates with the scientific empirical paradigm. Virtue Ethics (Malloch & Mamorsky, 2013; Ritenour, 2011; Widmer, 2012) critiques business practice along the teleological lines of 'oughtness'. This is the belief that 'things are not what they should be'. Both these ideals assume the centrality of business stewardship, which does not harm the earth- its flora, fauna or to its residents.

There is a need for more research in this area but suffice to say, I have used the above factors to point out that apart from 'the divide' the sustainability argument is inevitably bound up in an ethical basis. In keeping with this argument, some people groups can present both critique and rationale for a business change agenda, based on the consistency of their particular world view and ethos. For example, in the contemporary UK context, Featherby, (2009; 2012) and King, (2016) would contend that the economics of waste is itself linked to unbridled capitalism. With reference to the exploitation and abuse of food resources, Orlikowski & Baroudi (1991: 20) would likely intimate that such: ' . . . conditions of domination need to be understood and to be critiqued. . .'. Whatever the case, at

least these commentators may be referenced to offer some explanation as to *why* CfE measures are urgently needed.

Likewise, the Resource-based View (RBV) theorists, co-production and other post-Marxist theorists (Habbershon, Kaye & Williams, 1999; Prothero & Fitchett, 2000; Fitzgerald et. al., 2010) would also debate along these lines about concepts of 'engaged citizenship' and the business social responsibility of food SMEs as part of the movement for change. This is one basis for proposing radical measures such as 'green commodity discourse' in business and the rest of community. Prothero & Fitchett, (2000:48) comment about this but with a degree of caution:

'If the overthrow of commodity culture is rejected as a viable strategy by which environmental concerns can be addressed, it would seem logical to try and establish a theoretical justification that embraces capitalist social relations to further the ecological cause. . . The code of capitalism is destined to define the revolutionary means of change, and it would therefore seem logical to identify and locate the solutions to current ecological concerns within existing social frameworks . . . '.

As this Study embraces the inter-relatedness of the above themes, I would argue that these pluralities (e.g., of heritage) also have axiological implications for embedding stewardship values in the business sphere. I propose here that this refers to business value affecting food SMEs in three areas (as outlined in Diagram 7). These stewardship values are reflected in the fundamental concepts of: collective responsibility, food waste and resource valorisation and also, individual and institutional relationship as a basis for all business transactions.

This perspective raises epistemological implications. Specifically, it forms a basis for the multi-method design presented later in Chapter 5. Therefore, from a philosophical standpoint, this Study does not subscribe to a singular approach to epistemology. It acknowledges interrelatedness of multiple concepts and research themes as a real business scenario for HaFS, within the SME grouping and also, for other stakeholders. Furthermore, diverse explanations given for systemic food waste which challenge CfE progression, reflect elements of human

organisational complexity. This factor helps to explain why supporting food SME participation may be likened to a messy, problematic situation (Checkland, 2009).

4.14 The nature of HaFS and their neighbourhood contexts

From a philosophical standpoint, this research positions food SMEs that are HaFS within an environment where 'The whole is greater than the sum of its parts'. It should be stressed that this setting comprises socio-political and environmental (ecological) features. As a result, the 'golden thread' running through the Study is the philosophical notion of 'business operating *within* Community'. This is in direct contrast with the traditional parity attributed to 'Business *and* Community'.

In supporting this view and its need for comprehensive expression, Stojanovic, 2019:438 calls for '*. . . a working model for sustainable development which directs economic growth in profitable societal and ecosystem functions, and limits enterprise's optimal scale relative to the economic capacity of the basic socio-environmental setting*'. The philosophical stance of this Study therefore draws from systemic thinking and related holism. In so doing, I am joining with Jackson's (2003) allusion to the 'one society' of Wordsworth (in 'The Prelude', 1850). In purely philosophical terms, I have placed market enterprise (whether corporate or SME) within the boundaries of society itself. This is as opposed to market enterprise being society's compelling competitor.

Following this line of thought, HaFS may be considered as operating within the larger, more complex system of their neighbourhoods and the wider society. In this respect, they are able to affect their environment but are also affected by the cultural knowledge processes within the wider system (Van Gils, 2014). Having established this, let us now review the nature of the HaFS sector, as presented in the matrix at Table 4.

Table 4: The Categorisation of HaFS in the UK

(Source: WRAP, 2013)

Subsector	Definition	Examples
Restaurants	Outlets that have table service.	Italian, Chinese, Indian, French restaurants.
QSRs	Outlets that may have take-away or eat-in, or both.	Fast food, cafes, take-aways, fish & chip shops, sandwich bars.
Pubs	Outlets that focus on providing alcoholic drinks, and food sales are less than 50% of turnover.	Pubs (tenanted, managed branded, managed unbranded).
Hotels	Outlets that provide overnight accommodation and food accounts for less than 50% of turnover.	Hotels, bed & breakfasts, youth hostels, caravan parks.
Leisure	Outlets located in places where leisure services and transport are the prime focus of activity. Outlets in this sector may provide restaurant, quick service or pub style catering.	Museums/galleries, theatres, cinemas, sports clubs, events and mobile caterers, visitor attractions, motorway service stations, travel/transport.
Staff catering	Feeding employees at the place of work including government locations as well as business and industry.	Run in-house, contracted staff restaurants.
Healthcare	Outlets whose main focus is providing healthcare (including short- and long-stay care).	Private & NHS hospitals, care & nursing homes.
Education	Outlets that are primarily concerned with educating children or adults (or both).	Nursery, primary, secondary schools; further & higher education establishments.
Services	Outlets that provide a publicly-funded service and which are not healthcare or educational establishments.	Prisons, armed forces, police & fire service catering, local authority & government departments/agency staff restaurants.

During the inception phase of this project, HaFS in the SME sector represented a vibrant grouping in the so-called ‘real economy’ of UK businesses. Table 4 above shows how these UK enterprises are categorized into 9 enterprise classes: pubs, hotels and B & Bs, large restaurants, cafes and other quick service restaurants (QSR), schools catering and similar food services. In 2018, the wider HaFS sector commanded national attention when the Office for National Statistics (2019) projected a turnover of approximately £100 billion. It is reasonable to assume that SME turnover was included in these figures.

Many of these operations have a neighbourhood base, with a boutique-style approach to doing business. This geographical positioning and presence on local high streets suggested that HaFS were already poised to benefit from support for regenerative business. There was another side to this too. It may be that HaFS

(particularly SMEs) could be strategic for fighting food waste at a deeper level within their own communities.

Additionally, there is not a consistent pattern or geographical spread of this constituency across the UK. This factor could be interpreted as a measure of richness for these food SMEs and opportunity to be exploited through cross-sector linkages and gaining from this support. Inevitably it would entail some level of intermingling or collective know-how involving B2B contacts, their local councils and other community stakeholders. Furthermore, this may be considered as a truly 'real life' knowledge setting, revealing complexity and the dialectics of socio-economic, political and environmental change. Miles et al. (2015:2) would view this in terms of 'systemic engagement'. Moreover, they contend for the inclusion of higher education (HE) to this approach featuring six (6) principles. These begin with Systems Thinking itself, followed by collaborative inquiry, support for ongoing learning, emergent design, multiple inquiry and action and transdisciplinarity.

On the assumption that UK food SMEs are already embedded in local neighbourhoods, they are likely contributing to the vibrancy of 'High Street Britain' and business town partnerships in different ways. It follows, therefore, that collaboration and interconnection might nurture business relationship, knowledge exchange and experience about combating food waste and, moving towards more circular practice. It is also proposed that in terms of epistemology, this could be linked with the emergent orientation of Critical Realism. In terms of food SME engagement, this commitment could be felt at the local level, especially since this is where many quick service businesses, restaurants and caterers actually operate.

4.15 Praxeology and Circular Food Economy (CfE)

At the same time, the local and national campaigning from organisations (such as those at the heart of TRiFOCAL) other third sector organisations, green growing communities and business networks have been busy *doing* something about food waste. The collective effort is delivering at the community and national

levels. It is this *doing* on the part of TRiFOCAL participants that defined a praxeology, about addressing food waste based on circular principles.

Praxeology is also helpful for strategic planning, drafting mitigation measures and collective impact. This is especially in instances of assessing business and wider community/ national risks (Stahel, 2012; Benton & Hazell, 2013; Abramson et. al., 2015). In short, Praxeology is about commitment to the processes of thought and relevant action. Diagram 7 shows this may involve some shared focus with teleological views, resulting in purposeful action (i.e. exercising deliberate and rational choice) or a type of 'methodological apriorism' (von Mises, 1998:35).

Overall, the proposed philosophical framework combines Critical Realism and systemic thinking as related meta-theories which can inform collective action for change. The following core elements come into focus: multiple institutional mechanisms- (including the diversity of HaFS); the existence of stratified bounded systems (implying the socio-ecological context of HaFS' enterprise but also, the notion of working across-sectors) and issues of causality and transcendence. As noted earlier, the latter entails a linkage of cause with potential open-endedness and innovation.

This philosophical base also provides a mixed metatheory around change. It is consistent with Mingers' (2015) anti-reductionist, confluence approach to exploring ontology and epistemology. We can now look at these basic notions themselves.

4.16 Thinking Together & Changing Together: Philosophy & Epistemology behind collaborative change

This concept of knowledge surging from knowledge is very conducive to a Critical Realist epistemology. The dynamism, emergent change and transformation may be applied to responsible food SMEs (in this case HaFS). This is in their business re-modelling and practical change that enhance the resilience of both enterprise and the rest of their communities (Lester & Cannella 2006; Muske et. al., 2007; Steiner & Atterton (2014). Fleetwood (2014:19) comments on Bhaskar's Critical Realist views regarding knowledge source:

'Every action performed requires the pre-existence of structures and mechanisms, which agents draw upon in order to initiate that action. By drawing upon these structures and mechanisms, agents reproduce or transform them.' Moreover, unlike Piaget's constructivism, it would seem that Critical Realism is open-ended to the prospect of externally derived or even revelatory knowledge (apokálypse sofía). Once again, this view connects with the CR tenet of transcendence.

There are two major limitations to the holistic themes represented in this Study. The first relates to the definition of 'community resilience'. Abramson et al. (2015:44) define this term as 'process; ' . . . traits and characteristics of a system that permit it to conserve or marshal its resources'. While this writer agrees with definitions of community resilience as procedural, the elements of purposeful continuity and exchange (as opposed to reaction or response to emergencies, hazards and disasters) are important.

By joining the philosophical debate about food waste as a (literally) messy social problem affecting local environment and economy, the so-called 'triple bottom line' regarding SME business value comes into view.

There are definite epistemological implications for this research. These relate primarily to:

- a) Clarifying the philosophical school(s) of thought relevant to the nature and direction of the Study
- b) Identifying various knowledge assumptions concerning the notion of 'business for the common good' which is arguably, at the root of a CfE.
- c) Defining and examining major assertions concerning collaboration and, food SMEs practicing responsible business and pursuing a CfE.

As noted earlier, one might apply modern Critical Theory to the 'green cause' and environmental resource management bound up in the idea of ". . . moving towards a CfE'. It may even be argued that at a macro-level, a Critical Theory viewpoint may present an historical (even institutional) narrative about the vagaries of capitalist economics, natural resource depletion and, over-dependence on fossil fuels which are *finite resources* (Dietz & O'Neill, 2014). In

general terms, this would also highlight the difference in scale, power and influence affecting the business struggles of food SMEs, which contrasts with larger food corporates. Thus, when it comes to epistemology, the critical realist notion of transcendence and emergence of knowledge fits well with this research project.

At the same time, any discussion on the problem of food waste addressed by a CfE reveals classic systemic thinking about food waste but also the potential for change. This is because it acknowledges interrelationship and complications within the food system; the business supply chains in which food SMEs operate and, the behavioural issues related to people, groups and change. Hence, it seems logical to assume that by horizontal linkage across these factors (and sectors)- a holistic approach is needed for change but for change which could be sustained.

The logic behind such linkages is obvious at a macro-level. It follows a chain of thought about: likely causes behind climate change; affecting the physical environment and therefore, impacting availability of natural resources; food production (and by extension), food security. According to the flow of this argument, it becomes an imperative for beating food waste.

4.17 Linking Epistemology to Rationale & Praxeology

The developments listed below are current and very relevant to this discussion. They could help to assess implications for local economy and the wider UK society:

- a) UK Policy – Joint action from the Department of Environment, Food and Rural Affairs (Defra) and the Department for Business Innovation and Skills (BIS) through a national Resource Security Action Plan (RSAP). According to Benton & Hazell (2013:4), this report advised against the current linear business model. It proposed that ‘. . . conserving resources in the economy was one of the best ways to meet resource security concerns.’

- b) HaFS as a vulnerable sub-sector- This factor reinforces the need for informed, collective action.
- c) EU Policy- Emerging EU policy to promote zero waste business and the Circular Economy will have impact at all levels of business. This includes: product design, access to commodities and resources, business standards, reliable supply chains and, UK trade with the Continent.
- d) The urgency of Environmental Disasters and other catastrophes. There are implications here for food security which should impact the curtailing of food waste. The crux of the issue is that environmental challenges are arising whether or not there is epistemological consensus and convergence regarding the problems. Chalmers views this in simple, realistic terms and warns: 'The upshot is that consensus in philosophy is as hard to obtain as it ever was, and decisive arguments are as rare as they ever were.'
(Chalmers: 2009: 18).

4.18 The place for Interpretivism

On the other hand, pure Interpretivism theory addresses even greater detail. In this case, defining business as a social construct with diverse elements, actors and interpretations. According to Orlikowski & Baroudi (1991;14) this: . . . posits circular or reciprocally interacting models of causality, with the intention of understanding actors' views of their social world and their role in it.'

Thus, Interpretivism sits at the base of contemporary writing associated with Behavioural Economics (Neal, Quester & Hawkins, 2006). It also draws from related psychological studies linked to the 'ethical consumer' (Perez-Sanchez, Barton & Bower, 2003; Harrison, Newholm & Shaw, 2005; Pitelis, Keenan & Pryce 2011). It may be argued that the concept of the 'food citizen' embraces some notion of this aware consumer, SME owner/ manager, bureaucrat or community activist, who is committed to stewardship of our food resources. It is interesting that despite shared green concerns, some of the above conversations remain outside of the mainstream debate on business ethics.

4.18.1 Not quite Pure Interpretivism

Any hints of interpretivism in this Study relate mostly to the role of individual behavioural change in stopping food waste tendencies and, pursuing pathways to more responsible business. This perspective is in direct contrast to pure interpretivist thinking noted above which emphasizes human action based on subjective interpretation. Interpretivism would also open gateways for multiple understandings and, diverse (not necessarily complementary) viewpoints about how change could happen in this Study's context.

Yet, this Study has clear aspiration beyond 'CSR' and 'environmental friendliness'. It is sympathetic to a growing body of literature which is linking business to socio-ecological problems (Perez-Sanchez, Barton. & Bower, 2003; Pitelis, Keenan & Pryce, 2011; Van Gils et al.,2014: 196).

The potential outcomes from multi-stakeholder cooperation involving SMEs are also significant. For example, the concept of knowledge surging from knowledge is very conducive to a Critical Realist epistemology and to an Action Research methodology. Dick and Swepson (1994) refer to this evolution as '...a cyclic process, so that early interpretations can be challenged and refined.' This view seems an appropriate match with any dynamism, emergent change and transformation involving the food SMEs in this Study.

These changes would eventually entail (but not be limited to) a growing body of shared knowledge and, stronger linkages involving food SMEs and community stakeholders (e.g., representatives of consumers, charities, groups etc.). From this perspective, SME and community collaboration to address food waste is a participatory process with definite potential for emergent properties. Fleetwood (2014:19) comments on Bhaskar's Critical Realist ontology regarding source for knowledge:

'Every action performed requires the pre-existence of structures and mechanisms, which agents draw upon in order to initiate that action. By drawing upon these structures and mechanisms, agents reproduce or transform them.'

Here, synergy with Action Research is again very apparent and it matches the reasoning behind the methodology for this Study.

The principle of the hermeneutic circle asserts that ‘. . .all human understanding is achieved by iterating between considering the interdependent meaning of parts and the whole that they form.’ (Myers, 2013:42). This bias towards Aristotelian Holism maintains; ‘The whole is more than the sum of its parts’. Hence the Study’s ontology is rooted in such holism. In this regard, its research philosophy is sympathetic to the notion of ‘Business *within* Community’ as opposed to ‘Business *and* Community’. As a result, the Study will highlight how social change and environmental challenges are triggering new discussion about the purpose and value of business.

Arguably, Logical Empiricism and Reductionism represent the more traditional philosophical stance regarding ‘doing business’. However, unlike Reductionism, the relational themes in this Study merge well with Critical Realism, its orientation towards social justice and, inclusive, participatory business. The latter invites a wide range for business which engages across-sectors. It assumes a place for an SME presence, while valuing the contribution of neighbourhoods to local economy (Steiner & Atterton, 2014).

In other words, the inclusive approach has a natural affinity with the multi-party focus of this research. Hoyt-O’Connor (2010: 208) comments on this mimicry between ‘things economic’ and ‘things social’: ‘Just as economic growth can exhaust natural ecologies without counting the cost, so it can deplete social ecologies upon which economies actually depend.’ When encouraging self-interested behaviour, markets erode the social conditions of their own sustainability by rendering social relations and commitments precarious and fragile.’

As a typical Critical Realist, Lawson (2006) exposes his heterodoxy by simply calling for a new ‘social ontology’ for the business sphere. This request has important implications for Epistemology and by extension, for higher education and formal training related to business and management pedagogy.

4.19 TRiFOCAL & the Philosophy of a CfE

Hence, in setting out the boundaries of this case, there is an emphasis on the supportive elements of TRiFOCAL's cross-sector status and, how these facilitated HaFS' circular practice. This is despite the obvious levels of complexity. First of all, the project integrated healthy nutrition with food waste prevention and recycling unavoidable food waste. This triple agenda indicates real challenges around food valorisation, human consumption and behavioural change. Since these factors are intertwined with the resource efficient principles of a CfE, achieving change is definitely one level of complexity.

Secondly, TRiFOCAL's aims required broad-based engagement that translates as organisational complexity. In view of all these factors, examining philosophical significance meant working through multiple (but very interrelated) concepts. This was unavoidable simply because it reflected not only the compound nature of the project but also its plurality of partnerships (as seen Diagram 13). Weaver (2014) underscores this point: 'Collective Impact works best when the issue being tackled is complex and dynamic. Complex issues are such that they have multiple root causes, there are many players already at the table, and there may not be a direct line between an intervention and a result. Communities are equally dynamic and complex. . .'

Boiral et al. (2013:364) recognise the issue also and speak of a third way, regarded as a combined approach. In commenting about ontological purpose affecting sustainable business, they refer to: ' . . . the meaning-system that determines the personal worldviews, deep motivations and abilities to take complexity into account.'

An important part of this discussion is acknowledging the food SME owner/managers and employees first and foremost as citizens. This understanding emphasises the social context of business and connects logically with the ideals of food citizenship. If wasting food is a societal problem, the threats to human and community security are real. With the working assumption that food SMEs are already embedded within UK neighbourhoods, the philosophical divide seems less that they should be supported as potential change agents. It is more about delineating perspective and transformational strategy for the way forward.

An ontology of 'not either or' (with respect to the objectivist/ subjectivist divide of research) but the 'both plus. . .' is needed. This is while noting objective reality and human subjective bias. The 'both plus' approach also embraces the boundless nature of knowledge and research discovery. As a result of this stance, it makes sense that '. . . a key commitment of critical realist research is that there are deeper levels awaiting discovery.'(Edwards, O'Mahoney & Vincent in 2014:10). These 'deeper levels' may be likened to different representations of knowledge, according to the Hebrew and Greek linguistic interpretations of: 'Chokhmah'/ 'Sophiya' (moral wisdom); 'Phronesis' (sagacious knowledge for decision-making, based on an understanding of purpose); 'Sunesis' (a compound of wisdom and understanding for practical application) and; 'Ginosko' (a progression of deep experiential knowledge). This terminology is largely relegated to the confines of theological philosophy (Gregersen, nd). Yet, it is worth noting that the very origin of 'Philo-sophy' (as spelled out) may be found in the linguistic rudiments of 'Sophiya' wisdom.

The crucial point being made here is about the opportunity for academic re-connection and further theory development surrounding these terms. This is especially in view of the CR perspective about stratified depths of reality and, its clear orientation towards transcendence. These interpretations of wisdom and knowledge might yet provide some missing dimension to organisational theory and eco-business management.

4.20 Summary Conclusion

This Chapter examined the philosophical and epistemological significance of cross-sector support influencing SME participation in a circular food economy. It links current discussion around the Anthropocene Era with the need to abandon food waste. This is linked to inclusive ways for supporting smaller enterprises, during this shift. The concept of Holism (incorporating systemic thinking, virtue ethics and principles of stewardship) is combined with Critical Realism. This is based on synergy and, commitment to business purpose and to regenerative business. These contrasts with reductionism and linear (albeit disparate) thinking. The result is an interpretive lens for understanding this Study topic.

CHAPTER 5 ‘Juggling Plurality & Complexity: Research Strategy & Multi-method Design’

‘For some critics, however, the ‘mental models’ approach still suffers from too rationalistic a conception of agency and from a methodological individualism which abstracts human subjects from their social context’ Owens (2000:1143)

5.1 Summary

Moving on from the earlier literature review, this Section introduces the Case Study’s qualitative design and data collation methods. The Chapter discusses the topic with justification for the position taken in this research. The term ‘multi-method’ is used here (as opposed to ‘multi-methodology’). In this respect it specifies the activities which were necessary to support both primary and secondary data collation. Apart from the literature review, these methods included; semi-structured interviewing, focus groups and, participant observation. The Rich Map/ Picture and stakeholder mapping techniques (borrowed from SSM and Operational Research and Management studies) also supported data collation. These multiple data sources correlate with other plural features of this Study, namely; the participation of many stakeholders, spanning three sectors. This is backed up by the Study’s hybrid philosophical approach and the basics of Critical Systems Thinking.

5.2 The Primary Research Question

The Case Study approach that was chosen for this Study was based on its instrumental purpose and the Study’s commitment to cross-sector, organisational alliance that supports the food SME sector. The main question guiding this research was therefore: *‘How might cross-sector collaboration support food SMEs (that are HaFS) in moving towards a circular food economy (CfE)?’* At the risk of this seeming a bit longwinded, I have parenthesised ‘HaFS’ above, to specify a particular category of businesses. Again, we should bear in mind that the focus is only about a subset of food catering, restaurants and hospitality and

other stakeholders in London. Having established the primary research question, let us now examine the research objectives which are set out below.

5.3 Research Objectives and Framework

This Study's three research objectives (ROs) and focus areas are presented in the tables below. Arguably, the used of multiple methods is following along the lines of the methodological pluralism of Critical Systems Thinking, discussed by Midgley (Midgley:1995).

The idea behind the first RO was to provide an assessment and a base from which to find out more about supportive relationships for food SME waste prevention.

5.3.1 First Research Objective (RO1)

RO1: RO 1: To assess business engagement and support for food SME action on food waste

To achieve this, the following data collecting methods were used: Participant Observation, Rich Picture and mapping exercises.

Issue areas and examples of questions supporting this first Objective are:

Issue Areas & Questions	Rationale & Potential Data Significance
Who are the sector collaborators supporting food SMEs in tackling food waste? What does this collaboration look like?	Defining and Articulating Inter-relationship Responding to the initial query: <i>'WHAT is going on?'</i>
What is a CfE and where would HaFS in the SME sector fit in?	
What are the main challenges to engaging these food SMEs with the message?	

5.3.2 Second Research Objective (RO2)

RO2: To assess how cross-sector collaboration might enable food SMEs to adopt CfE principles.

In order to achieve this, the following data collecting methods were used in relation to HaFS that are SMEs: Literature review (business journals, reports, archival reports, policy documents and journal articles) and semi-structured interviews.

Issue areas and examples of questions supporting this second Objective are:

Areas & Questions	Rationale & Potential Data Significance
a) How are HaFS being 'enabled' to adopt CfE principles, as a result of collaborative support?	Awareness, Communication & Collective Impact Responding to the basic query: HOW might collective support enable HaFS participation in CfE action?
b) What's working for these food SMEs?	
c) What's not working, why?	

5.3.3 Third Research Objective (RO3)

RO3: To outline a relational circuitry for sustaining food SME adoption of CfE principles.

In order to achieve this, the following data collecting methods were used in relation to HaFS that are SMEs: focus groups and semi-structured interviews.

Issue areas and examples of questions supporting this third Objective are:

Areas & Questions	Rationale & Potential Data Significance
a) What are the strategic sector relationships for helping to sustain HaFS' participation in CfE efforts?	Innovation, Ethos & Sustainable Legacy Examining underlying mechanisms of change for resilience and continuity
b) Who are the primary influencers/ stakeholders for progressing this?	

c) What are the implications for UK policy and further action?	Responding to the basic query: <i>'HOW might HaFS' participation be sustained so that they may flourish?'</i>
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It should be pointed out that the questions respond to key issues which were already raised in the literature review. Hence, ROs were matched to issues and link questions. These were further elucidated by a rationale and potential data significance to the overall study. The focus areas were categorized, for example, as: 'Definition and Operation' and 'Awareness, Inter-connectedness & Influence'. One reason for this approach was because I anticipated very limited timeframes for gathering information. HaFS are generally considered notorious for being fast-paced operations. This is a critical factor for SMEs where staff teams may vary in size and, time is a premium resource for owner-managers.

I expected that the availability of senior staff for interviews (and other field work support) would have been challenging. Additionally, it seemed sensible to prepare for any potential limitations on my Researcher role (this was in anticipation of confirming a study unit for this work). It was also an admission about the cross-sector setting of the research. I anticipated that this would have meant voluminous stipulations, organisational protocols and bureaucratic agendas. As a result of this, it seemed prudent to avoid a research strategy that would be too open-ended.

Although not necessarily limited to any anticipated interview settings, the research questions functioned as a base from which to draft interview questions. According to Braun & Clarke (2006:80); 'What is important is that the theoretical framework and methods match what the researcher wants to know, and that they acknowledge these decisions, and recognize them as decisions.'

Therefore, a matrix format was presented for each crop of questions. This allowed for a summary of the rationale and, the significance of the questions to the general topic. Additionally, each matrix provided a framework for organizing future data collation and information around the specific batch of questions. Moreover, every segment had a tranche of questions with data significance

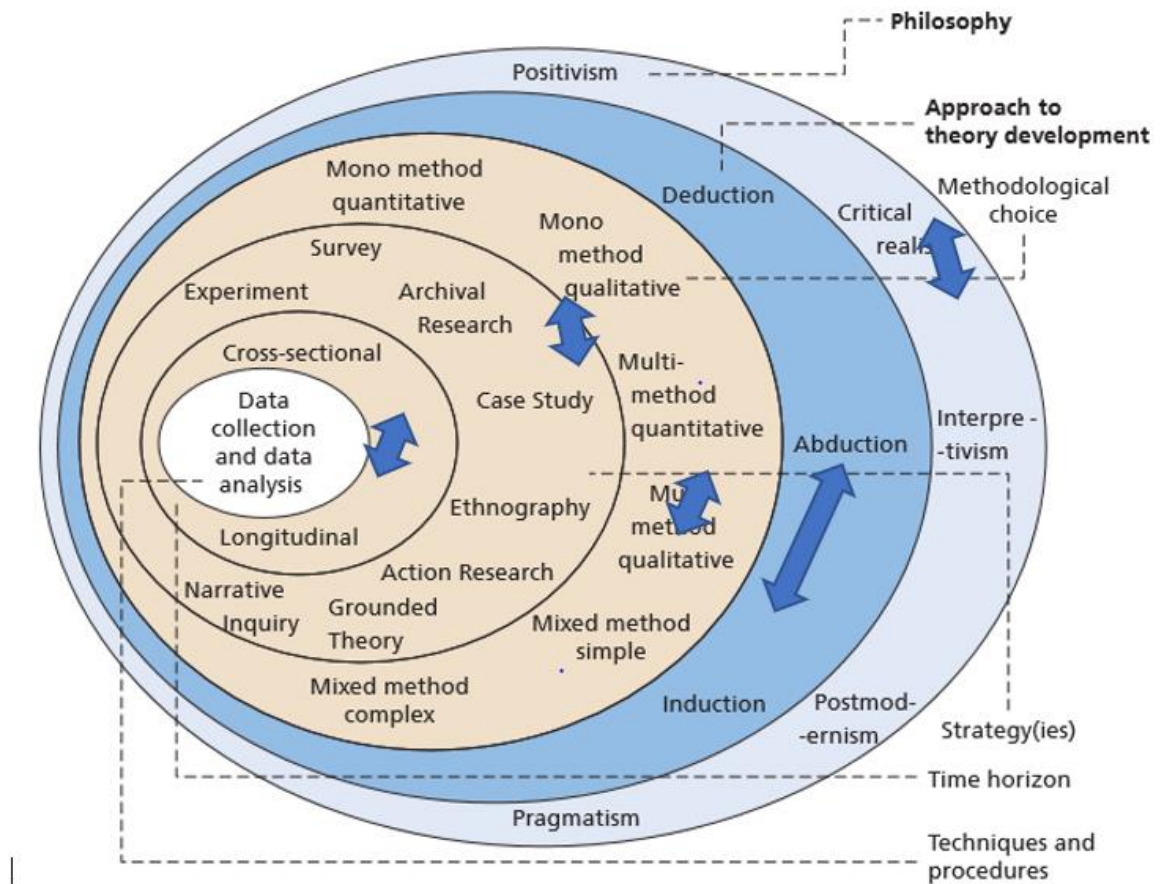
coded in bold. These groupings were further categorised, in relation to the overall topic and data corpus linked to each method. These categories are: defining and articulating inter-relationship; awareness, communication and collective impact; innovation, ethos and sustainable legacy.

5.4 The Research Onion applied to the Layout of this Study

This Project was a cross-sectional investigation of a complex, 'real-time' activity, over a stretch of years. Saunders et. al's (2019) much referenced 'Research Onion' is presented at Diagram 8 below. Just as one would remove the various layers of an onion, this outlines the stages in building the research study. The direction moves inwards, from the guiding philosophy; through to methodological choice, data collation techniques and analysis.

There is some minor adaptation to the details here. In order to pinpoint the closest features of the research design. These are highlighted by the arrows. So, for example, the external layer of the onion pertains to the Study's research philosophy. It was helpful that this newest version of the Research Onion has now added Critical Realism. At the same time, there is no allocation for thinking systemically or for Critical Systems Thinking. This would have provided a clearer depiction of the hybrid nature of the philosophy behind the research. As a result of this, I am alerting the Reader that I have positioned the arrow closer to CR and away from Interpretivism.

Diagram 8: The ‘Research Onion’ applied to this Study



(The Research Onion is copyright © 2019 MNK Saunders, P Lewis and A Thornhill and is reproduced with kind permission from the authors).

5.5 Rationale for Research Strategy: Originally two potential pathways

There were two options for this project’s methodology- either to conduct a Case Study or to pursue Action Research. Both of these approaches were valid methodologies in their own right, and they both allowed for levels of researcher engagement. In terms of this research focus, they also fitted the inclusive, ‘all hands-on deck’ vision for promoting CfE in a business and wider community context.

5.5.1 Action Research as a Potential Methodological Approach

It is true that there are similarities between the Case Study and Action Research methodologies such as the 'double hermeneutic' (Giddens, 1994 in Walsham 1995), which means that the researcher's presence is able to stimulate change in the field setting. The main concern about this 'double hermeneutic' is that researcher familiarity would breed influence (or interference) and, that this would sway the views or choices of study participants. Of course, Action Research naturally encapsulates elements of deep researcher engagement on the field which could be much less so with a Case Study. Therefore, some would argue that these two methodologies may actually be complementary. For example, Hinkelmann & Whitschel (2013:30-31) tell us that this is because they are able to address 'real life instances . . . in real life contexts'.

In terms of previous studies with similar 'green' themes, Lashley (2000) used Action Research methodology in his Study about the tourism sector entitled: 'Action Research: An essential tool for hospitality management education?' This methodology is often applied to the education and health sectors because it is suitable for such project settings, the delivery of services and, the iterative learning styles in those fields. This factor aligned with the London TRiFOCAL (Transforming City FOod Habits for Life) Project; the multi-year initiative which became the unit for this PhD. research. In methodological terms, TRiFOCAL was implemented along the lines of Action Research methodology. This facilitated the testing, application and discovery and, the so-called 'double loop learning' processes defined by Myers (2013: 65).

Apart from health and the environment, Action Research has been used in other fields. Dick and Swepson (1994) examined the issue of appropriate validity in Action Research while Graham, (2003), Carr and Kemmis (1986) used this research approach in addition to Soft Systems applications.

Whatever the circumstances, Walsham (1995:77) argues in pure interpretivist terms. He concludes that; ' . . . even if researchers view themselves as outside observers, they are in some sense conducting Action Research by influencing what is happening in the domain of action.' In view of this Study's commitment to 'green' values, this begs the question about whether (in this so-called

'Anthropocene Era') anyone could justify perpetual 'observer' status in the scandal of wasting food. On this note, since food waste is an endemic problem with complex, systemic factors, it does seem logical to reserve a role for the Researcher as a participant in helping to bring about transformation.

5.5.2 The Case Study as a Potential Methodological Approach

A Case Study is a lot like methodical storytelling. There is rich, focussed detail yet, it is governed by its context and also, subjected to certain confines, guidelines and sequences. Zainal (2007: 2) informs us: 'Case studies in their true sense explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions and their relationships.' Merriam & Tisdell (2016:37) are very descriptive in their tone about ' . . .this search for meaning and understanding' with ' . . .the researcher as the primary instrument of data collection and analysis, an inductive investigative strategy, and the end product being richly descriptive.'

Much has been written about Case Studies, how to define and how to conduct them (Gillham, 2000; Yin, 2018; Merriam & Tisdell, 2016; Thomas, 2016). Rizos et. al. provide a literature review of case studies (2016) and, the volume of writing on this approach include research strategies for dealing with complex challenges. These include promoting resource efficient business (Castka et. al.,2004; Jenkins, 2009; Parry, 2012; Papargyropoulou et. al. 2016; Tatano, 2017). In terms of a research strategy, Case Studies may be conducted on a range of topics and from other disciplines too. For example, in examining accountancy Shareia & Bubaker (2016) use the viewpoint of an accountant and present the differences between qualitative and quantitative case studies.

Myers (2013:78) holds the view that; 'Case Study research is particularly useful in the early stages of research on a new topic, when not a lot is known about it.' Myers' description fitted well with the topic in the Study's research purpose, as a relatively 'new' challenge of supporting circular practice, among SMEs in the hospitality and food services sector.

Still close to the subject matter of this particular research, Papargyropoulou et. al. (2016: 334) used a Case Study approach in pursuing a conceptual framework for food waste prevention in hospitality services. It is interesting that although that research was conducted in Malaysia, many of the challenges correlate with those faced by the HaFS sector in the UK. Papargyropoulou et. al. even confirmed the importance of the case approach for this sphere, by asking for : ‘ detailed, case specific food waste prevention plans addressing both the material and socio-economic aspects of food waste generation.’

This approach is already prevalent and is being applied to sustainable business themes (Williams & Schaefer; 2012; Stringer, 2013; Tatano et. al. 2017). This is simply because Case Studies may help in bringing about enterprise change. For example, MacNeill & Baines (2016) employed a Case Study to assist Manchester Pubs in cutting back on food waste. Nelson & Martin (2013) applied this to a general study on sustainability and Jeffries (2019) recently used this style to report on 5 scenarios in which Circular Economy was applied to food. Additionally, it is worth noting that WRAP and a number of NGOs linked to TRiFOCAL already used case studies for summary reporting on food waste action. For example, the recent UK Food Waste Reduction Roadmap (WRAP, 2020) endorses the importance of case studies in reporting on developments about national food waste prevention.

5.6 So, why a Single Case Study?

Finding out about TRiFOCAL was a boost during this Study’s empirical phase. It was also a result of participant observation in the field. An alliance was later formalized through an MOU between WRAP and Manchester MMU. This document laid out institutional expectations governing knowledge and information exchange in the relationship and, in the process of conducting this Case Study. One can argue that this was also an example of systemic engagement facilitating HE/ business and third sector liaison. The idea of joined up working across-sectors was a primary feature of TRiFOCAL.

The rationale for this single Case Study is presented in the Storyboard at Diagram 9. This layout was adapted from Thomas (2016). It helped to define the

boundaries of the case, namely, how TRiFOCAL’s collaborative business engagement might impact SME choice for more regenerative enterprise. Although the Storyboard appears to outline hypotheses, it should be noted that at this time, there were no pretensions about following through with a positivist methodological framework. The Storyboard maps out information snapshots (or vignettes). These were considered as entry points: an opportunity to examine concepts, inter-relationships and potential feedback areas. These pertained to the food waste theme and the biological, material and information flows of a CfE.

Diagram 9: Story Board of TRiFOCAL Food SME Impact towards a CfE



Burrowes-Cromwell, Paucar-Caceres, & Baines (2019)
 Storyboard adaptation from Thomas (2016)

One aspect of this rationale for choosing a single case related to epistemological invitation to go deeper from an empirical stage (i.e. initial findings) to the 'actual' and 'real' elements of change. This approach is rooted in critical realist thinking. When combined, these two dimensions of width (complex expanse) and depth (complex rudiments) are important. This connects with previous comments about philosophy. In this case, it relates to the contribution of the Study's blended philosophy to its research design.

Another reason for adopting the singular approach was because it would not curtail using more than one research method. Adamides et. al. (2008) utilized this approach in developing a regional solid waste system. Likewise, I also employed multiple methods for this Study's empirical research. These included: interviews, focus groups, participant observation and the use of Rich Picture and mapping techniques. I made this decision because it provided a number of options for information gathering which complemented the diversity of the stakeholders and any necessary action points. So, for example, the focus groups were conducted during a TRiFOCAL summer programme event. Since there was also the issue of gaining access to very busy stakeholders. I tried to utilize the benefit of an already gathered audience for this activity.

When speaking about the single Case Study design, Flyvberg (2006:3) rightly defends its simplicity and function. Moreover, he critiques the scathing viewpoint of Campbell & Stanley (1966) regarding their 'hypothetico-deductive model of explanation' that 'Such studies have such a total absence of control as to be of almost no scientific value . . . Any appearance of absolute knowledge, or intrinsic knowledge about singular isolated objects, is found to be illusory upon analysis . . . It seems well-nigh unethical at the present time to allow, as theses or dissertations in education, case studies of this nature (i.e., involving a single group observed at one time only) (Campbell & Stanley 1966, in Flyvberg, 2006).

Ultimately, the decision for the single case approach was a choice for this simplicity. It complemented current emphasis on sustainable enterprise and an urgency for food SME business uptake of CfE principles. As a winning combination, it offered in depth empirical analysis of collective impact and how

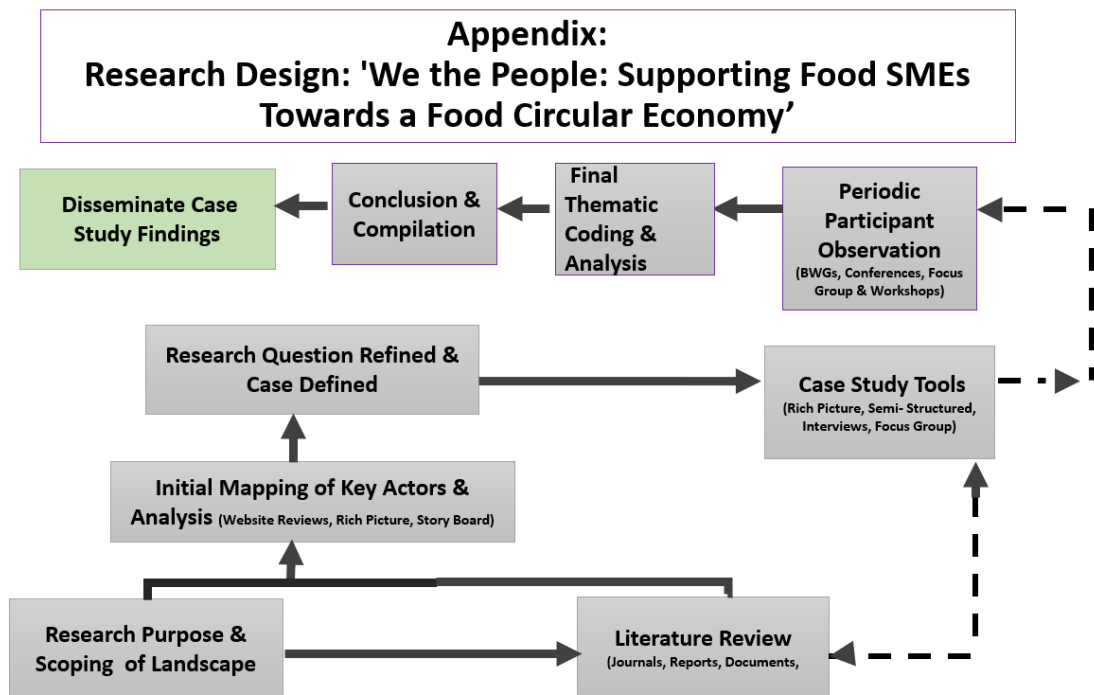
this could affect individual, business-organisational and inter-organisational levels. These transformation factors relate back to the research objectives and the rationale behind certain research methods. Most of all, they provide some linkage across philosophy, theory and methodology, via a single Case Study.

5.7 Research Design

Research design requires the logical layout of a study and there is an inevitable connection between how this is structured and the researcher's values, assumptions and philosophical stance. As noted earlier, it was clear that this research topic leaned more towards qualitative methodology than to quantitative and reductionist discourse. This was because of the topic's underlying emotive elements about people collaboration and connection with many disciplines from different sectors. There were also complex communication themes (e.g. such as diverse information streams; campaign messaging about food waste action and; promoting waste to resource enterprise). In view of this, Saunders et. al's. (2019). 'Research Onion' was a practical, visual tool for establishing the progressive stages of the research and its philosophy of methodology.

Although this research topic invited a qualitative approach it was also clear that the design could not be based only on phenomenology. Likewise, while the concept of a 'stakeholder' (Bryson, 2004; Stieb., 2009; Wang, Liu & Mingers, 2015) was a defining theoretical principle for mapping individual business practitioners, participating schools and councils in this Project, there were limitations. This multiple conceptual arrangement of this Study's topic required attention to both plural and macro dimensions. These elements intersected at the discussion on food waste and Circular Economy and HaFS, (e.gs. there were multi-disciplinary, sector interests affecting the environment). In terms of TRiFOCAL, there was still a dynamism to its action research methodology that would not be sufficiently complemented by only referencing stakeholder theory.

Diagram 10: The Original Research Design

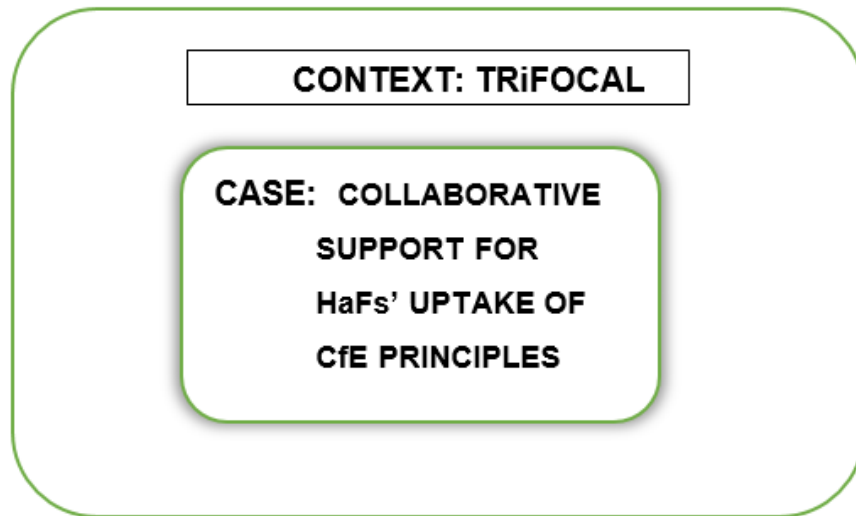


There were three reasons for this Study's research design which is presented at Diagram 8. Firstly, in terms of setting timeframes, the research meant working alongside the London TRiFOCAL project (which had already been launched by 2017). Since these were still early fieldwork days. I took time to map out the key sector organisations promoting food waste reduction. Some of this initial scouting involved attending meetings, conferences and scoping online webpages about business food waste, CE and waste to resource practice.

Secondly, since there needed to be some logical progression for data collection, Rich Picture and participant observation were helpful throughout this early mapping stage, and, in terms of the latter, it would be fair to describe my starting role as an engaged scholar for most of the research experience (Van de Ven 2007). However, this inception stage also provided a basis for shaping interview questions, followed by more interactive focus groups. Thirdly, the research design was a good match with the plurality and diverse stakeholders of the TRiFOCAL project's food business, food waste and community concepts.

Figure 8: The Single Case Approach

(Source: Malarden University Sweden in Case Study Notes, Urquhart & Shi).



The majority of the information gathering for this research took place between 2017-2020, with a significant part of the primary data collation from 2018 onwards. As presented in Figure 8 above, the single case setting was the London TRiFOCAL project. It allowed examination of the cooperation supporting HaFS movement towards food waste reduction and 'waste as resource' principles. The three main goals of TRiFOCAL incorporated:

- a) Preventing food waste
- b) Healthy sustainable eating
- c) Recycling inedible food

5.8 Research Methods

5.8.1 Interviews

It is usual for interviewing to be included in Case Study strategy for collecting empirical data (Brunetto & Farr-Wharton, 2007, Hosseininia & Ramezani, 2016). This Study involved primary research entailing 8 semi-structured interviews. The interviewees were not limited to HaFS personnel but matched the cross-sector requirements of the Study. The function of the interviews was to corroborate emerging findings from the literature and participant observation. I also decided

to use semi-structured interviews and focus groups because they would help to ascertain:

- a) how participating HaFS were aligning their business vision within the TRiFOCAL message
- b) how exposure to TRiFOCAL messaging could help them towards CfE business change. These might include: efficiency ordering & storage; re-distribution; menu change /portion size; customer doggie bags; food composting or other recycling methods
- c) what further support they may need to sustain change (e.g. participation in a circuitry of change)

Since the Study's main research question is about cross-sector collaboration supporting food SMEs (towards food circular effort), interviewees were selected from all three sectors. The original idea was for at least half of the respondents to be SME owner/ managers or employees but this was not practical with such a small number of interviews. In the end, the breakdown of interviewees comprised: 3 HaFS representatives, 1 catering agency, 3 representatives from agencies in the TRiFOCAL collaboration and; 1 national agency- representing a HaFS mission for promoting regenerative enterprise. These individuals were selected based on their linkages to TRiFOCAL agencies and/ their participation in the actual London Project.

Face to face interviewing could be very time-consuming and sometimes, connecting schedules and travel time could be difficult. In anticipation of this, at least 2 other options were proposed for interviewing. These were by telephone interviewing and also Zoom teleconferencing. At that point in time, Zoom had high customer ratings for online meetings and virtual collaboration projects. Although both these options were available at different times during the research, I did not have to use them for the interviewing.

5.8.2 Focus Groups

Kitzinger (1994) saw the contribution of focus groups in facilitating interaction, exchange of ideas and, even disagreement among the participants. Additionally,

focus groups allow opportunity for cross learning among participants and, this could be a fascinating outcome for any study. There is also potential for multiple disciplines represented and contributing to a focus group. This trans-disciplinarity is a natural feature of cross-sector work. On this basis, two focus group were planned and executed for this research project. Along with the interviews, the results from these gatherings are examined in the Chapter on Findings. This relates to the Study's objective to outline a relational circuitry for sustaining food SME practice of CfE principles. In keeping with this, the focus groups provided some discussion of themes for change and innovation.

5.9 Validity and Reliability

As case studies go, this research takes a definite qualitative position discussed by Myers (2013:78,79), Thomas (2011) and Gillham (2000) and not the more positivist leanings of Yin (2018). The Study's orientation towards business purpose and its cooperative sentiments about meta-management did not resonate with positivism. Even so, I found that Yin's methodical approach to laying out material; the thinking behind Case Study protocol and preparation for data storage were still practical. Therefore, some of these ideas were adopted in the matrices which outline the questions for the research objectives.

Leung (2015) is comprehensive about qualitative research and ensuring validity and reliability. He acknowledges that since qualitative research has a different ethos and demands interpretation (which is inevitably subjective), it is based on a special logic. Hence, these factors cannot be dealt with in the same way as a quantitative Study, which is given to the logic of reductionism and objective measurement. Saldaña (2013:39) is at the other end of the spectrum. He posits that in any case; "Objectivity" has always been an ideal yet contrived and virtually impossible goal to achieve in quantitative research. So why should qualitative inquiry carry its baggage? We do not claim to be objective because the notion is a false god.'

In this research, various planning schemes and tools were also used to help sharpen focus and research goals. This style is very consistent with the preparatory stance of Van de Ven, (2007); Blaikie, (2010) and Bryman & Bell, (2015). For example, the devices listed below contributed to shaping the layout, scope timeframe ultimate parameters of the study. The Case Study protocols may be found among the final appendices of this document. They included:

- a) Journal Listing – this assisted with organizing the academic literature for the initial literature review. The following activities also supported the planning and implementation of this Study:
- b) Creation of a Logic Checklist - a logical presentation of research strategy, ensuring alignment of the aims, objectives and research strategy
- c) Methodological Grid - In order to broadly outline the methodological approach and tools to support this research enquiry. This Grid supported the Study's use of multiple methods
- d) A Stakeholder Mapping Tool - to assess their level of power, business engagement and support for food SMEs vis-a vis the goals of this study.
- e) A Project Gantt Chart- Featuring the chronological layout of the project and important milestones. This was among the earliest tools created. It needed to be revisited on a number of occasions. Milestones were rearranged and timelines changed because of conflicting schedules and other circumstances

5.9.1 Ensuring Validity of the Sample

Validity therefore has to do with the overall appropriateness of a particular research exercise and its strategy (Leung, 2015). The sampling approach is an important start. This Study employed a purposive sampling plan during the initial scouting stage. This was face-to-face field work and referrals. Sometimes, analysis and reflection on observations revealed cues and opened up new contacts and partners. These allowed the Case Study to progress to a deeper level. Interestingly, this is consistent with the layered stratification of Critical Thinking that was referenced in the earlier Chapter on a philosophy of business.

Moser & Korstgens (2018:11) offer some thoughts about this kind of development in research and the interplay with decisions about sampling:

‘Sampling also affects the data analysis, where you continue decision-making about whom or what situations to sample next. This is based on what you consider as still missing to get the necessary information. . .’

I made a later decision to shift to criteria sampling. The latter is described by Moser & Korstgens (2018:10) as a ‘. . . Selection of participants who meet pre-determined criteria of importance’. I started the search for organisational settings that were directed to the subject area of interest. This was in order to assess the collective support for food SMEs in the food waste and CE discourse. Among the key sampling parameters for partners were:

- a) Capacity to support food SMEs addressing food waste- What did this look like?
- b) Food SMEs with an interest in zero waste business, commitment to food waste reduction in keeping with the Food Waste Hierarchy
- c) Openness to liaison regarding: strategic goals/ aspirations related to this study’s topic and its outcomes, throughout the action cycle- this was a ‘gate-way’ access issue
- d) An interest in closer working linkages with academia and supporting local economy development through ‘business in the community’ research and innovation
- e) Capacity for innovative public engagement and educational methods
- f) Enthusiasm about agreed research design and governing protocols. This was a very important issue to fulfil the ethical requirements of conducting the research. It encompassed: MOUs, participation information forms, assessment and evaluation procedures.

5.9.2 Validity of the Questions and Content

As a first response to any concerns about the appropriateness and validity of the research questions, these were supported by three groupings of sub-questions.

They were only selected after an elimination process. The latter entailed, review of a more extensive list. After careful assessment and thinking about rationale, a final batch of questions were then chosen as the most salient to back up the main research query. I confess that this process was arduous. However, it helped in streamlining the ROs.

Additionally, the interviewees were first informed about the project by a 'Participant Information Sheet' (Appendix B) outlining key protocols and ethical commitment. In the interest of validity, this sheet was first reviewed by external helpers to test suitability of language, tone, inclusions etc. boosting research validity. In order to test the flow, timing and delivery of this method. I also did a pilot of the interview questions with one focal point who worked in food waste prevention.

In terms of validation linked to content, I used a combination of note taking and tape recording to support the interviewing and focus groups. These could be revisited at later times, rearranged and re-grouped, based on any insights or outstanding themes. Wherever possible, after interviewing (and while details were fresh in mind), I took the opportunity to record reflective notes after the meeting.

Arguably, this Study's multi-method approach was a type of triangulation which helped with validation. The different methods produced categories of data which were juxtaposed to support validation. The use of the Rich Picture technique and early stakeholder mapping was very helpful in this regard. The combination of literature reviewing, participant observation and interviewing allowed subsequent reflections and data checking.

Triangulation has definite benefits for collated data in case studies. The thinking around this is that it strengthens the research exercise and helps to address concerns regarding validity. A key point is that multiple data sets and collation methods may provide a base from which to arrange, dissect and to analyse data. The argument is that triangulation of data sources would lead to a state ' . . . where the researcher looks for the data to remain the same in different contexts.'

(Denzin in Tellis, 1997:2). This point holds for this Study. Also, (in terms of time urgency and balancing other commitments during the entire PhD. research period); ‘. . .selecting cases must be done so as to maximize what can be learned in the period of time available for the study.’

5.9.3 Reliability

Reliability is also an issue of consistency. Darke, Shanks & Broadbent (1998: 282) argue that efficiency in setting up a Case Study is crucial. They reckon that; ‘A Case Study data base needs to be organised in a way that will ensure ready access to the case data at any point during or after the study. Methods for classifying case data and materials and mechanisms for accessing and retrieving them need to be considered.’

Bearing in mind the span of years researching the topic, the overall data corpus for this Project was huge and it demanded consistent formatting and organizing. The layout, data gathering and collation processes were critical for strengthening the reliability of data collation. Hence, the methods used in this research allowed very basic filing of both hard copy and digital information. One example of this was collecting and checking through numerous pamphlets, business cards, advertising material, booklets that I assembled over the length of the Study. Leung (2015:326) comments on this: ‘As data were extracted from the original sources, researchers must verify their accuracy in terms of form and context with constant comparison, either alone or with peers (a form of triangulation)’.

5.9.4 The Approach to Coding and how this was used

There were two ways that this type of data was coded in this Study. Firstly, there was coding of data conducted semi-manually. Secondly, I experimented with the use of computer aided coding using Leximancer software, applied to the interview and focus group transcripts.

It is fair to say that coding was conducted throughout the data collation period of this Study. In his appreciation for qualitative research, Saldaña (2013:3) defines coding in qualitative research as:

‘.. most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data’.

There were issues with scheduling and access for follow-up with individual partners during this research. Additionally, reconvening meetings would have been outside my mandate as a PhD. Researcher. Therefore, I had to optimise every chance to meet stakeholders. Validation of early coding was carried out wherever possible. This was during some participant observation exercises and it was used for information review and to give further depth to the enquiry.

For example, the code regarding Food SME/ HaFS visibility; HaFS agency & innovation was a major alert in view of the Study’s goals. I was grateful to be able to raise this issue among partners (including strategic players). These discussions were on a one-to-one basis and sometimes in small group settings. As the latter consultations were convened to either promote CE and, impact food waste management (or general discussion about wider sustainability and green business issues), I was aware that these specialists and business practitioners would provide valuable insights.

I also decided to take this route because the topic and its mixture of concepts had not been ventured before. This now means the existing data corpus could be revisited as the basis for future research initiatives and writing. Therefore, in the spirit of this Study, I took a ‘no wastage’ stance to all the gathered data. At the start of the project, all information was deemed significant, even if it needed to be suitably arranged. This style was similar to Hoddy’s (2018) example in fashioning a critical realist technique for empirical research- (although this particular Study was not along the same lines of ethnography and, Hoddy’s exclusion of coding the literature).

Similarly, here was a chance to design a modality with the closest match to the blended tenets of Critical Realism (CR) and Systemic Thinking (ST) as a rallying framework for examining HaFS business change. I applied this construct to the data, while looking out for themes, their meanings and consequences. Like most case studies, the data corpus was huge and, this meant that sorting what was

relevant (or not deemed relevant) eventually required some level of discrimination. Again, I revisited the research objectives and looked to Hoddy's (2018) practice of 'best fit' in this context.

Therefore, unlike some research projects, broad coding started from the literature review and observation field work. The goal was not just a matter of expanding knowledge about the literature but also, to use this opportunity to refine the investigation process and to simply find out more. Large literature categories arose from the review and these were coded as can be seen in Appendix F. These provided a chance for raising important questions with stakeholders about how the represented sectors were enabling HaFS uptake of circular enterprise.

There were also questions about what working mechanisms were in place to support food SMEs. This was judging from the multitude of national and international reports, conventions and officialdom which were taking place. Therefore, although it may be unusual to speak of literature within the strict context of coding, the categorization of the literature during the review process was foundational.

5.9.5 Leximancer Software: functional support for manual coding

The data coding in this Project included some use of Leximancer software with the thematic analysis. In view of Moser & Korstjens' (2018) invitation to 'live' the data in qualitative analysis - reflecting, rearranging thoughts and research immersion can be tedious. This is especially when dealing with a Case Study. As I had spent so much time in field work and the data gathering stages of this Project, Leximancer provided an alternative system of data analysis, while still saving on time. The use of Leximancer offered the chance for some distancing and contrast to the manual coding. The software also complemented the multi-method, hybrid approach to the investigation.

In short, this Case Study was not a tidy progression from literature (secondary data) and then, onwards to 'field work' (collecting 'primary' data). I imagine that a more linear approach would have made the research journey much simpler but

this was not appropriate. Coding and analysing data represent the crowning stage of the research process as it helps the Researcher to make sense of the data. By coding and analysing from the earliest data stages (literature review through to focus groups), this created a meta-synthesis of the entire subject. Therefore, this Study may be considered as an entry level investigation of a cluster of concepts, that were organised in a new way.

5.10 A Look at the Conceptual Framing and the Methodology

In reviewing this Study's key concepts, 'cross-sector collaboration' referred to any collective determination, actions or strategies of diverse sector partners. The focus here was on alliance which nurtures participation and other responses from HaFS' personnel, other business and community actors. 'Moving towards a circular food economy' was defined solely in terms of awareness any shift in business operations. This entailed any measure of adjustment or innovation informing (or effecting) waste to resource action, surrounding food. In other words, it was more about progressive transformations than monumental change. 'Support' was defined in terms of knowledge, material exchange or other favourable action.

Thus, according to this conceptual framework, the question could be re-presented with the following emphasis: '**How** might . . . **cross-sector** collaboration **support HaFS** in moving **towards a CfE**?' There are two complementary aspects here. Firstly, there were the immediate 'possibilities' for HaFS' empowerment from diverse stakeholder support. As implied earlier, this would mean some configuration of people, enterprises, groups and agencies in working partnership. Becker & Smith, (2018) describe this process as '. . . alliances of individuals and organisations from the non-profit, government, philanthropic, and business sectors that use their diverse perspectives and resources to jointly solve a societal problem and achieve a shared goal'. It is worth noting that this viewpoint highlights both an individual and an institutional dimension to these said 'alliances'.

Secondly, in terms of achieving CfE outcomes (as the desired 'shared goal'), Prieto-Sandoval, Jaca & Ormazabal, (2018) advise us about a necessary 'symbiosis' for nurturing a circular economic system. Therefore, when it comes to HaFS, these interpretations suggest that uptake of circular practice would involve business engagement, interaction and exchange.

These multiple, dynamic elements reveal two factors about the topic at hand- namely; that there are underlying mechanisms which might either help or hinder collective participation and, that there are feedback mechanisms which may also enable or obstruct HaFS business change. The mixed mechanisms presented here are consistent with the blended philosophy of Critical Realism and Systemic Thinking of the previous Chapter. Likewise, they also indicate a philosophy of methodology that is flexible, multi-faceted and, achieved through a Case Study approach.

5.11 Qualitative Research Design is therefore 'Food for thought. . .'

I refer to just a select group of researchers here but the literature about qualitative research design is exhaustive (Meyer, 2001;Olsen, 2008; Yin, 2018; Merriam & Tisdell, 2016; Urquhart & Shi, 2015; Bhatta, 2018). Most would agree that a qualitative study is defined by a search for meaning and looking into questions about human purpose, perception and experience. Another way of saying this is that it explores what is valued and meaningful about being human, about living and sharing our environment. This definition is very applicable to this Study's theme about the business food waste problem and collaborative action to address it. Understandably, a qualitative study is more easily associated with a phenomenological-based philosophy and, given to the interpretivist commitment to meaning.

This contrasts with Positivism and its quantitative empirical method of deductive investigation. Positivism is primarily about establishing ('measurable') facts. This is because it is rooted in an epistemology that defines science, based on what can be seen and regarded as tangible (and therefore, measurable). Undoubtedly, there is an important place for positivist thinking in cutting food waste and

promoting a CfE. One simple example of this is the popular rallying statement: '*What gets measured gets managed*'. In this context, this important statement also implies that what is not 'measured' would not be managed and, likely to be wasted. Such emphasis on quantitative measurement and detailing organic matter was inappropriate for this Study. Simply put, it did not match its human relational themes and aims as explained in the earlier chapters. This point is explained more fully in the next section about the study's philosophy of methodology.

5.12 Reflections on the Philosophy of Methodology: Blending Critical Realism and Systemic Thinking.

The philosophy of methodology for this research is given to plurality and complex, diverse themes. The Study's research design 'marries' Critical Realism with Systems Thinking as a meta-theory (Karlsson in Edwards, Mahoney & Vincent, 2014). However, despite its hybrid status, the Study does not implement the CR methodological detailing of: Abduction, Retroduction, Holism and Dynamism. Fletcher (2017), Gerrits & Verweij (2015) have noted a kinship between Critical realism (CR) and its potential contribution to dealing with complex scenarios and generally, to qualitative enquiry.

In blending Critical Realism with Systemic Thinking, the latter embraces the complexity of the UK food system and the challenges of organizing and managing transformation. The former allows space for emergence involving structural and operational changes at the institutional and enterprise levels. Central to this is the interplay of HaFS business challenges and also, their potential for shifting to regenerative enterprise. This was also in anticipation of support from cross-sector partners (e.g.s. environmental health and other council departments, schools, supply chain partners and community food waste action networks). In this regard, Jackson's (2003) application of the holism of System's Thinking to management, would fit the complexity of the TRiFOCAL leadership context (comprising high level organisations: WRAP, Groundwork London, LWARB and other key intermediaries), with its challenging inter-organization and, 'business and rest of community' mandate.

Hence, the Study's merged philosophical position is backed up by a values-driven epistemology. It positions the function of learning as unfolding knowledge and, therefore, inherently *dynamic*. Therefore, in theory building terms, this would allow for combining abductive and inductive techniques but remaining alert to the fundamental relational tenets of business (as a human affair). Notably, these tenets are also rooted in the action research methodology employed by the TRiFOCAL project. They also resonate deeply with Systemic Thinking. For example, Romero & Molina (2010) have been examining the significance of dynamism, human inter-change and business contexts in their study on 'Green Virtual Enterprises'. By positioning it within industrial ecology, they propose a vital role as '...a unique collaboration opportunity with a 'business sense'. . .to integrate ecological, economic and social considerations into the creation and operation/evolution of new or existing industrial networks.'

All these perspectives were really detailing innovative methodologies for bringing about change. They influenced this Case Study's methodology because they stressed the contribution of the case context as a setting for learning and for discovery. Flyvbjerg (2006:7) seems to agree with these ideas in stating that; 'Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is therefore more valuable than the vain search for predictive theories and universals.' Having been introduced to Kania & Kramer's views (2011) about collective impact, I concluded that the challenge of supporting HaFS circular uptake was not only a 'technical problem'. It was also an 'adaptive problem' (Kania & Kramer, 2011). Thus, this research design met both the TRiFOCAL multiple stakeholder Action Research approach and its 'collective impact' focus. Both were directed to the level of the institution and to the individual (within or apart from institutions).

5.13 Summary Conclusion

This Section outlined the strategy for this single Case Study's qualitative research. The Case Study approach is well tested and applied to a wide range of research areas, including sustainability themes and most recently, food waste.

Case Studies are also compatible with the Action Research methodology, which was employed by the TRiFOCAL Project. This research was implemented using a staggered, multi-method research design which merged soft-OR techniques (e.g. Rich Picture) with semi-structured interviews, participant observation and focus groups. It catered to the nature of TRiFOCAL. This was because TRiFOCAL featured institutional ambit; complexity and multiple stakeholder as distinctives. Altogether, these resonated with the methodological pluralism of Critical Systems Thinking. The next Chapter now presents the Study's findings.

CHAPTER 6 Food Waste. . .A Hot Topic for Collaborative Action: Discussion on Findings

‘. . .systemic problems require systemic solutions’ (Gustave Speth, 2015:9).

‘If the axe is dull and its blade unsharpened, more strength must be exerted but skill will bring success’ Eccles. 10:10 (Berean Study Bible)

6.1 Summary

The London TRiFOCAL project supported businesses and their communities in tackling the food waste mountain in our nation’s Capital. This cooperation forms the Case for this qualitative work. The research entailed multi-method design. It employed desk-based research, participant observation, interviewing and, other techniques. Altogether, these created various categories of rich data. This Chapter discusses findings about how TRiFOCAL’s defined ‘space’ supported HaFS movement towards combatting food waste and, their uptake of circular practice. These results are grouped around small matrices, with information pertaining to each RO, in each case, indicating the particular method used for data collation.

6.2 Discussion on the Thematic Framework Presentation of Findings

The Table at Appendix F is an overview of the Study’s findings using the Framework Method of presentation (Braun & Clarke, 2006; Gale et. al. 2013). This approach is geared for a large data corpus. It facilitated broad, manual coding and thematic assessment across the multi-method data sets. This contrasts with the more usual approach of coding only the interviews or focus groups, as primary, empirical findings.

This stance was taken for the following reasons. Firstly, Thematic Analysis was used in this Study because of its meta-theoretical slant. Braun and Clarke make a convincing argument for its use. Ryan & Russell Bernard (2003:177-180) refer to the process of ‘theming the data’ and describe it as ‘. . .a strategic approach for meta-summary and meta-synthesis studies’. Likewise, Gale et. al. (2013:8) further elaborates on this point about this method ‘. . . for managing large data

sets, *where obtaining a holistic, descriptive overview of the entire data set is desirable.*' (italics mine). The final part of this statement is intriguing as it fits precisely with what I have attempted with this data corpus.

Another reason for taking this approach was because the set of concepts in this Study represented a new area for research enquiry. This means that it is significant to pull them together. The framework approach serves this stage well because it brings opportunity to examine associations, as the concepts are laid out. This pertains especially to the 'HaFS' concept being put next to the 'Circular Economy' and 'CfE' constructs in the research. I would also argue that the multi-method approach used in this Case (how it was staggered and laid out) is open to this assessment. Mingers & Brocklesby (1997) take this view when making their argument for mixing methods.

Secondly, I note that other researchers have used this approach in examining specific areas that are linked to this Study. For example, in food waste generation and food related research: Garcia- Garcia, Woolley & Rahimifard (2015); Papargyropoulou, Lozano, Steinberger & Wright (2016); in Circular Economy and Systems Thinking (Barijugh, M. (2016) Critical Realism;. Lastly, it is very interesting that Habbershon, Kaye, & Williams (1999) employs this broad approach in their 'A resource-based framework for assessing the strategic advantages of family firms'.

The Reader would note the use of matrices throughout this document Altogether, these contribute response to the main research question: "**How** might **cross-sector** collaboration **support HaFS** in moving **towards a CfE?**".

The intention behind the Framework matrix at Appendix F is therefore to summarise the codes and themes as a meta-synthesis of all the data. Essentially, these direct the Reader to the grouping and sub-grouping of common elements, flagged up as a result of this Study's multi-method approach. There are eight (8) resulting codes and sub-codes (in brackets; a-h) and 8 associated themes. These inform the below discussion by reconnecting with the original research objectives.

For example, there were four codes and assigned themes for the interviews and focus group meetings. These were: 1) 'People Vibe' (sub-code: Local Agency); 2)

'Scale & Balancing Act' (Capacity); 3) 'Multidisciplinary' (Systemic Engagement & Exchange) and; 4) 'Integrated' (Reconnections). It is interesting that 2 of these codes refer to the macro business organisational and institutional aspects of the Study's topic. They are: ('Multidisciplinary/ Systemic Engagement & Exchange and Scale & Balancing Act /Capacity). These words hold deep cognitive meaning about the research topic. There are methodological implications here for creating other broad-based efforts to promote regenerative business in the SME food sector.

6.3 Findings pertaining to RO1:

RO 1: To assess business engagement and support for food SME action on food waste

Key Issue Areas & Questions	Rationale & Potential Data Significance
a) Who are the sector collaborators supporting food SMEs in tackling food waste? What does this collaboration look like?	Defining and Articulating Inter-relationship - Responding to the initial query: <i>'WHAT is going on?'</i>
b) What is a CfE and where would HaFS in the SME sector fit in?	
c) What are the main challenges to engaging these food SMEs with the message?	

6.3.1 'There but not There': Food SMEs and a Circular Food Economy

These findings were mostly a result of participant observation. Early field work was tedious but productive assessment. This was because it highlighted the activities of a number of agencies and organisations that were supporting HaFS action against waste. These are presented in Diagram 11. This confirmed a measure of business engagement involving HaFS in SME groupings.

Diagram 11: Observation of Emerging CfE Actors and Synergies

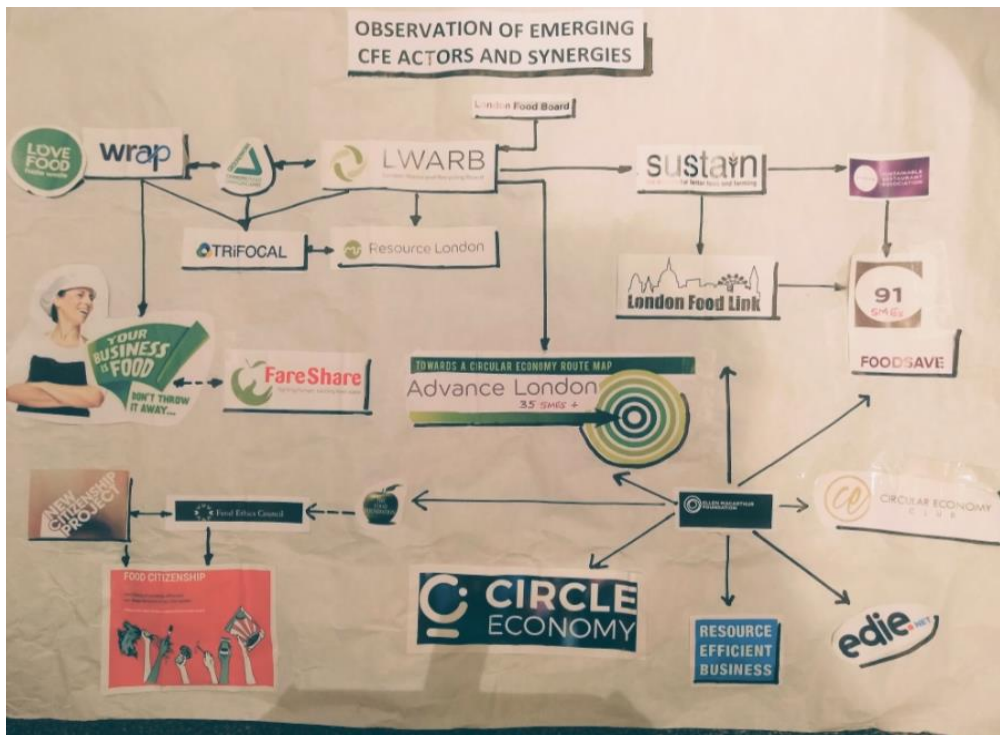


Diagram 11 also shows that among the key agencies there were: Ford Foundation, CIEH, Food Citizenship, the SRA and the Food Ethics Council. These all had national interests or special projects regarding this Study's topic. There was also an established cooperation involving: WRAP, LWARB, SUSTAIN and the SRA that supported HaFs taking action against food waste. For example, this partnership helped to deliver the FoodSave Campaign in this Diagram. In short, this business engagement involved high level intermediaries and it impacted HaFs in the SME category.

Based on Participant Observation, the food SME element was not always represented at various gatherings. This included the HaFS sector. I often resorted to checking any available list of attendees, in order to find out about the agencies, councils or business establishments represented. This cross-referencing of final lists confirmed who was in attendance (or at least, invited). There was usually a good turnout from corporate entities, EHPs, other Council/ public sector officials and academics.

In terms of other codes, some activities were assigned to 'Multidisciplinary' and then to Systemic Engagement & Exchange. Their significance represented an ORGANISATIONAL DESIGN theme. This was because it highlighted the shared

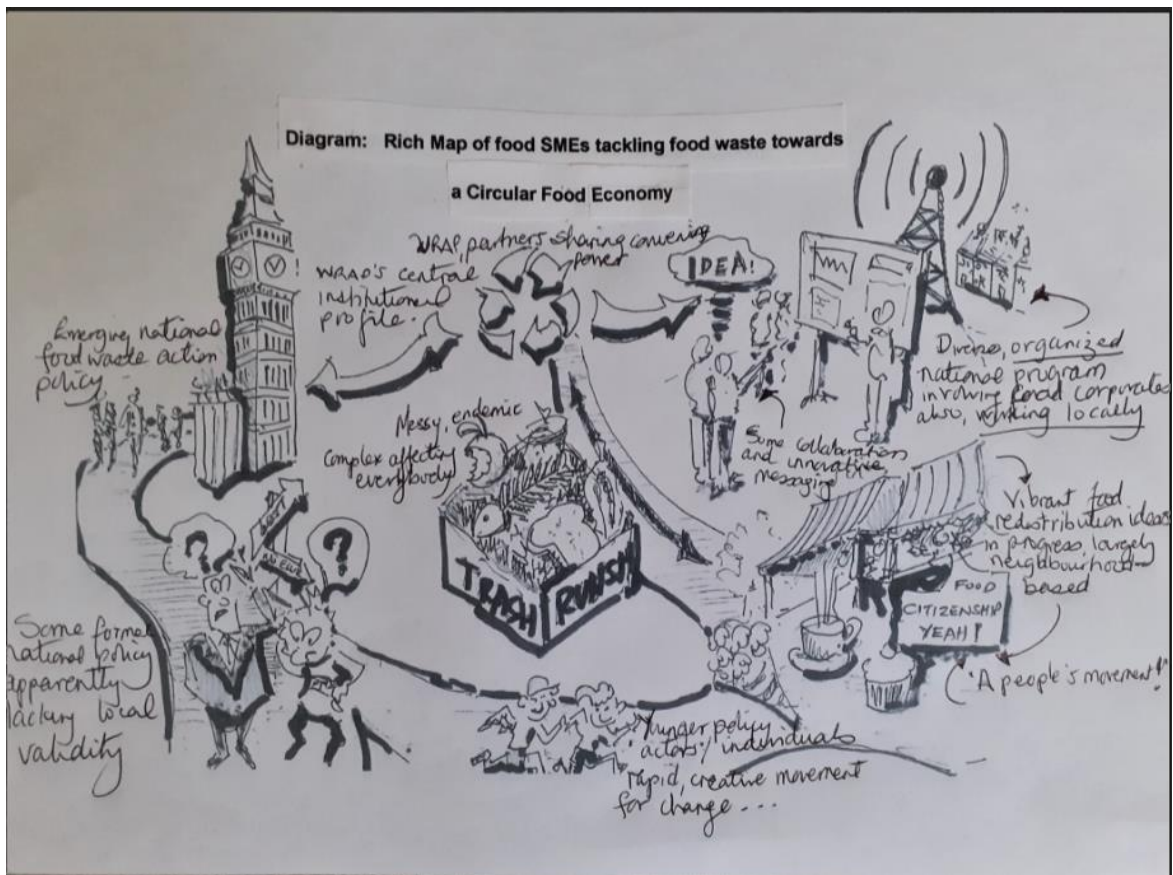
convening power of WRAP, LWARB and other intermediaries. This also confirmed their capacity to collaborate on macro-programming such as the Food Save Campaign mentioned earlier and also, TRiFOCAL. Such organised, national programming was enabled by Messaging, which was coded to Awareness Capture, and a theme entitled CAMPAIGNING.

In critical realist terms, these codes highlight the power of connection and delivery. They back up the literature which is currently discussing networks of support for promoting circular business. Some examples of this writing are Zhu, Yong and Lai (2011) with their emphasis on environmental supply chain cooperation (ESCC). In writing about 'Green Virtual Enterprise Breeding Environments. . .for Circular Economy, Romero and Molina (2012) appear to be associating this network messaging and collaboration with the delivery of industry and innovation.

As a mapping exercise Diagram 11 allowed me to assess areas of synergy and also, any significant relationships/ inter-relationships which responded to RO 1. These would indicate some proof of business engagement. The 'Food Save' campaign noted here was a cross-sector collaboration involving at least 4 convening intermediaries and 90 plus HaFS. It seems reasonable to assume that the majority of these restaurants, pubs and cafes were SMEs. Ideally, some mechanism for ongoing engagement between the Food Save campaign and TRiFOCAL (starting only one year later) might have led to different circumstances.

During Phase 1 of this Study, participant observation and the literature revealed similar limited visibility of HaFS participation in the food waste narrative. Where SME engagement did contribute, these tended to be at smaller, interactive events. The Rich Picture at Diagram 12 is an SSM soft OR tool. It was created to assess what was going on and the level of business engagement involving food SMEs, pertaining to the research topic.

Diagram 12: Rich Picture of Food SMEs tackling food waste towards a CfE



As described by Armstrong (2018:3), a Rich Picture is a ‘. . . classic tool for . . . finding out. . . graphical depictions of a problem situation, meant to capture elements of the intervention, the social situation, and the political situation’. The picture was created following some Observation in the field. The intention here was not to secure accuracy but this was an attempt to create a visual meta-synthesis of what was unfolding, with respect to the Study’s topic. There were some rudimentary coding prompts as seen at Appendix F.

For example, in that Appendix, we see the following:

The Rich Picture did show a number of neighbourhood-based programmes and some collaboration surrounding food redistribution- resembling ‘a people’s movement’ (bottom right-hand corner). These were coded as the following:

- A people vibe- representing local agency, with significance. I attributed this to neighbourhood access, inclusive programming (involving young people) and associated with the theme ‘BUSINESS SIZE INTERSECTING COMMUNITY

In terms of reasons for absence of food SMEs participation in other cases, these are left to conjecture but could be explained by a range of possibilities. For example, food SME personnel may not have been invited to certain fora in the first place. There could also be disinterest from the SME sector about a particular topic and attendance (due to lack of awareness or misunderstanding about food resource management). Additionally, there is the possibility that the timing for such meetings, location and structuring of the particular events were simply not convenient for HaF representatives. This is particularly in cases where there is limited staffing or other business challenges.

I have coded absence in this case, as important for two reasons. Firstly, this is with regard to appropriate business engagement messaging and, accommodation extended to food SME representatives. As suggested earlier, events planning that is sympathetic to the limited staff and time resources of these enterprises and to their timeframes might reap greater participation. For example, when reporting on small firms in Spain and the UK, Spence & Lozano (2000) suggested the need for a relational approach to engaging with SME representatives. They claimed that this may require less 'business speak' and some accommodation for less formal settings.

Brunetto and Farr-Wharton (2007) go further in noting trust as fundamental to SME owner-managers' engagement with networks of support and, they propose an 'embryo- explorative' liaison before any formal collaboration. Vernon et. al. (2003: 49) link the situation with accommodating SME diversity. They conclude: 'Initiatives that do not account for the heterogeneity of the sector are likely to have only limited success'.

There are a number of other studies that identify some aspect of helping or hindering practical breakthrough with this relational message and SME business engagement. Rizos et al. (2016) focuses on the removal of barriers to SME participation in Circular Economy. Moreau et. al. (2017) pick up on the human elements referenced in the Chapter on philosophy of business. They write about '...Why social and institutional dimensions matter for the Circular Economy. . .', whereas Williams & Schaefer; (2012) explore the issue in relation to the value expectations of managers. Vincent (2008) takes a more theoretical approach by

examining 'collective agency' based on critical realist analysis and, Shiefer & Deiters (2012) propose collaboration, through practical innovation support for SMEs.

The second point about the relative absence of participation relates to the code: HaFS agency and innovation, again, as a missing element. I refer here to Spence and Rutherford (2003) in their designation of small firms as a potential source of new thinking and innovation. Almost two decades ago, Worthington, Ram and Jones (2006) referred to this same issue with respect to contributions from HaFS personnel (representing immigrant populations), to the CSR discourse in the UK.

Therefore, in responding to the research question: *'How might cross-sector collaboration support food SMEs (that are HaFS) in moving towards a circular food economy (CfE)?'*, it is ironic that these relational issues might be linked to the original concept of hospitality itself. Judging from the assessment of some of the researchers mentioned earlier, it appears that concerted effort may be needed for greater participation of food SMEs in the CfE agenda. The other crucial point is that stakeholders could well be missing out on innovations, as a result of the non-participation of food SME representatives from these communities.

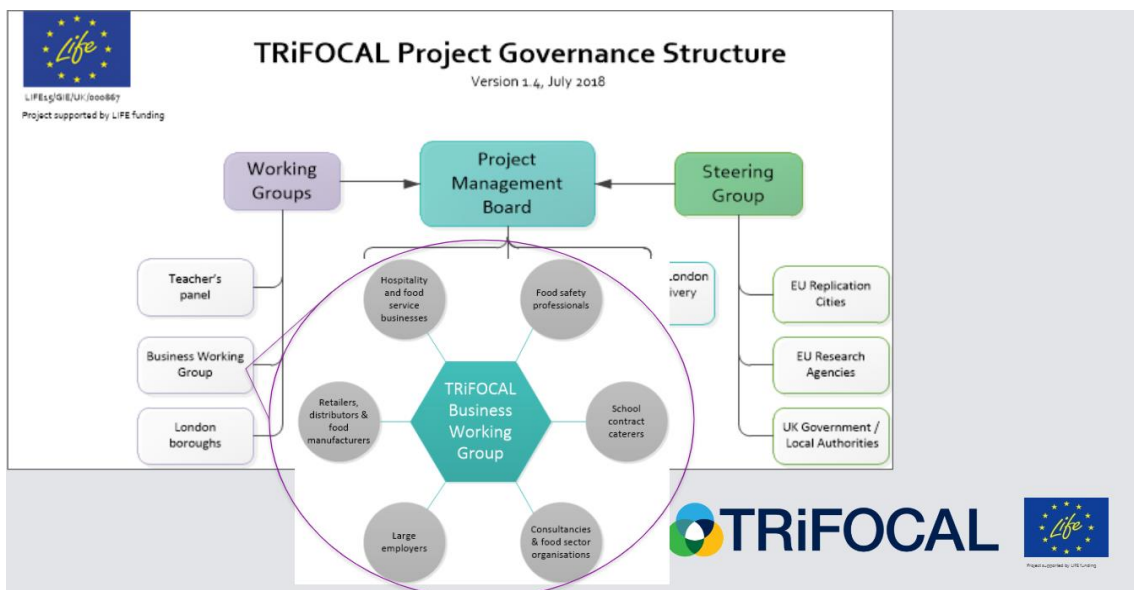
6.3.2 The London TRiFOCAL Project as Collaborative Space for Supporting Food SME participation

In many respects, Diagram 13 below responds to RO 1, confirming that TRiFOCAL was a macro, human participatory system which also facilitated food SME awareness about circular principles. It also advocated against business food waste. The 'macro' aspect is valid in terms of the project's mandate to reach across-sectors and, while including borough neighbourhoods. Partnership was originally directed to outreach and delivery within focus boroughs. These were: Bexley, Croydon, Hackney, Hounslow, Islington, Lambeth, Merton, Sutton and Tower Hamlets although there was some engagement with other London boroughs. However, this sphere was expanded to a total of 15 boroughs. It is

important to note that these boroughs are also home to a multitude of HaFS that are SMEs.

Although it was not originally designed to focus on SMEs, TRiFOCAL did accommodate these businesses. Furthermore, the category of ‘hospitality and food services businesses’ in Diagram 13 below, contrasts with a separate classification for ‘large employers’.

Diagram 13: TRiFOCAL’s Cross-Sector Collaboration



(Source: TRiFOCAL (2018))

Kania & Kramer (2011), outline 5 conditions for collective impact (CI): Shared Measurement, Mutually reinforcing activities, Continuous Communication and existence of a Backbone Organisation. TRiFOCAL also captured aspects of this ‘business within community’ stance. However, Wolff et. al, (2017) deliver an insightful critique about collective impact; ‘While CI offered an elegant and simple framework, it lacked the substantive foundations necessary for success that could have been drawn from decades of theory development and application and research.’³³

This is really an academic argument applied to another community setting. It should not preclude other contributions to practical action where collective impact can improve business or other community development, as with TRiFOCAL.

Thus, in speaking of ongoing partnership across-sectors (specifically between these enterprises and government), Revell & Blackburn (2005:17-18) inform us that: 'Owner-managers clearly need accessible information and support regarding their environmental responsibilities, which is why consultation and dialogue with government agencies on environmental policies is so important'. They also warn about the need for ongoing support; 'Regular dialogue and collaboration between SMEs and government, regulators, support agencies and trade associations are crucial, for without this owner-managers may feel marginalized and resistant to new policy measures.'

With respect to pursuing CfE outcomes, the UK has been making significant strides that are along these lines. In 2015, WRAP took early steps to respond to the quandary of inter-organisational management surrounding food waste by creating a; 'Framework for Effective Redistribution Partnerships'. The objective was to promote food waste valorisation and to reduce food surplus and waste along the supply chain. In view of the above discussion (and earlier comments about inter-organisational networks), we can safely assume that this participation of diverse stakeholders involves complexity. In other words, tackling food waste is a multi-faceted affair, involving multiple human actors for decision-making.

Judging from the title and focus of this research, these factors are early clues that plurality is a recurring theme throughout the Study. Moreover, they suggest the space for a 'meta-model' of organisational management in pursuing a sustainable food system and CfE goals. In writing on this topic, Ruggieri et al. (2016:2) explain this issue: 'The transition to a circular economy goes beyond the borders of a single organisation and stimulates a cooperation among different actors within a logic of the deconstruction of the value chains, and the reconstruction of new ones, over networks'.

I would like to stress that although their work acknowledges the heterogeneity of processes products and services, it differs from this research project. This is in two areas. Firstly, Ruggieri et al. were concerned about the technological

remodelling and industrial symbiosis needed for accomplishing CE in the context of 'firms' and eco-parks. This contrasts significantly with the organic food waste concerns of HaFS: in high street settings (usually); their food catering focus; temporal issues of perishability and preparation and, storage limitations impacting surplus and discarded food.

Secondly, Ruggieri et. al (2016:12) focus on 'different business organisations' and they admit the need for examining other frameworks of '...potential cooperation among organisations not within the boundaries of the eco-industrial parks, and also situations in which the concentration of firms in a specifically designed park is not possible.' The cooperation in this particular setting is not equivalent to the cross-sector collaboration focus of this investigation. This factor underscores the Case Study's uniqueness and its potential contribution to theoretical discourse.

6.3.3 TRiFOCAL Features and London Food Waste Statistics

Support for food SME participation in circular business remained as a central TRiFOCAL theme. Then, it was in the Project's governance structure where this 'theme of 3' continued. True to its name, this ground-breaking initiative was led by a triadic partnership of very strategic UK convenors. These were: WRAP, LWARB (now Re London) and Groundwork London. From an organisational viewpoint, this cooperation represented substantial assembling power and access to other national networks and international partners. In terms of work break-down; WRAP focussed on project evaluation and business engagement; LWARB provided support as a working partnership of the Mayor of London's Office and London boroughs, to improve waste management, across the capital. In contrast, Groundwork London reached out primarily to schools, communities and local organisations.

Therefore, even without mentioning TRiFOCAL's overriding commitment to 'collective impact' (CI) (Kania & Kramer, 2011; Weaver, 2014), this cross-sector collaboration approached what Ruggieri et. al.(2016). would describe as a 'meta-model of interorganisational cooperation'. It seems appropriate to draw attention here again to the embedded nuances regarding plurality. These may be seen at

a practical level in the BWGs and stakeholder circles which also included food SME representatives. I have already referred to Diagram 13 above which outlines the wide stretch of organisations, agencies and other stakeholders represented in the Project’s governance structure.

6.3.4 Findings pertaining to RO 3: Reporting on Focus Groups and Interviews

RO2: To assess how cross-sector collaboration might enable food SMEs to adopt CfE principles.

Issue Areas & Questions	Rationale & Potential Data Significance
a) How are HaFS being ‘enabled’ to adopt CfE principles, as a result of collaborative support?	<p>Awareness, Communication & Collective Impact</p> <p>Responding to the basic query: HOW might collective support enable HaFS participation in CfE action?</p>
b) What’s working for these food SMEs?	
c) What’s not working, why?	

6.4 Discussion on: Assessing how cross-sector collaboration might enable food SMEs to adopt CfE principles

Overall, food SME representatives and other participants in the interviews and focus groups were keen about uptake of CfE practices, as these were explained. This is an important point since it shows that while some respondents were not always aware of CE terminology, they became more aware of the principles and implications for business value. In terms of case studies, Tellis (1997:2) views the unit of analysis ‘. . .as a system of action’ therefore, interaction among actors is key. On this basis, Tellis argues that case studies may give ‘. . .a voice to the powerless and voiceless’ (1997:2). This is an interesting point in terms of how the focus groups functioned in this research and the individual awareness which was generated about the status of food SMEs, their limitations and unexplored potential.

The TRiFOCAL strategy was therefore an appeal for social responsibility as London food citizens, not only as owner-managers or members of HaFS staff teams. Its multiple partners and complexity features were already addressed in the philosophical meta-framework and the research design for this Case Study. It turned out that this methodology (based on collaboration) provided a stimulating space for studying but this was not only as a Researcher. The main point here is that TRiFOCAL was a place of learning for food SME and other stakeholders. This fits with the emphasis which Critical Systems Thinking places on generating social and other awareness (Midgley, 1995:61). In this particular case, the new learning was about environmental awareness and how collaborative action might help to bring about change.

Again, this was because community engagement was at the heart of the TRiFOCAL strategy to maximize the value of London's food resources. As noted earlier, the Project's methodological design was based on an iterative approach ('test, learn and adapt') which emphasized participation and cross-sector outreach. This was along the lines of an Action Research approach. In real terms, it entailed a dizzying number of stakeholders and institutional partnerships spanning: households, community groups, big businesses, professional associations and training agencies, schools, charities, councils and small food businesses.

Figure 9 below is one example of the wide outreach with respect to local councils and communities. There were other creative activities too which were used to raise awareness about food waste prevention campaigns. As an EU (LIFE) initiative, TRiFOCAL delivered very creative messaging and supported national campaigns and other activities to stop Londoners from throwing away food. Examples of campaigns which were directly linked to WRAP's national outreach were: Guardians of Grub (2019). Apart from tackling 'left-overs', TRiFOCAL fully endorsed CE principles such as recycling unavoidable food waste. The project also liaised with HaFS, Chefs and their kitchen staff and these often came on board to share their action journeys in tackling waste. In short, this Project's acronym; 'TRiFOCAL' was a statement of intent to change the way that Londoners treated their food resources.

Figure 9: TRiFOCAL Community Outreach



As discussed earlier, this methodology was based on Kania & Kramer's (2011) 'collective impact' approach. Collective impact is a collaborative way of dealing with complex issues, when many stakeholders already commit to a particular agenda, in a specified timeframe. In order to achieve whatever agreed goals, Collective Impact requires a dedicated team. This cadre of members take on the central coordinating role for activities. In this scenario, the TRiFOCAL team functioned as the 'backbone' agency. It managed the entire collaborative mechanism which comprised a vast number of London businesses and other community stakeholders.

It is worth noting here that the TRiFOCAL mission included outreach and learning opportunities to other European urban communities and stakeholders. These major cities included: Barcelona, Brussels, Burgas, Dublin, Milan, Oslo, Växjö and also, the island of Malta. Although this stretch was international, it shows up the Project's collaborative features and the inevitable complexity which it addressed.

6.4.1 Focus Group Responses

Some persons were frank in identifying challenges beyond their authority and perceived range of power as businesspersons. They highlighted areas that were

constant pressure points and that would prevent participation. These included: the pressure of time constraints, complex health legislation, sanitation pick-ups of garbage (or failure to do so) and high business rates, as acute troubles areas for SMEs in hospitality and food services.

This issue was coded to 'Scale and Balancing Act; associated with business Capacity. It seemed that the inverse would mean that collaboration which allowed HaFS to thrive through a shift to CE needed 'FLEXIBLE & NON -FORMAL PROCESSES. It is worth noting that these codes and theme featured in both the interviews (staff training) and the focus groups

In responding to questions about how multi-stakeholder collaboration might enable HaFS to adopt CfE principles, these were identified as areas where cross-sector support could make a difference. In this regard, Environmental Health Officers (EHPs) and other council officers were identified for 'know how' reference and, strategic assistance with impacted on daily food services. The EHPs in particular were identified as 'significant helpers' for collaborating with local HaFS to get rid of business food waste but there were concerns about the expense in removing organic and other business waste from kitchen/ restaurant sites. There was reference to a successful WRAP/ EHP collaboration in Northern Ireland which was helping to improve sanitation and to promote food waste action campaigns.

On this note of the role of the public sector, one focus group individual exclaimed;

'Councils should have some experts on-board who can help'

Yet, others who took the opposing position that HaFS should take business responsibility for cutting back on their own food waste;

' . . . councils don't have much jurisdiction over the waste produced by businesses apart from where it's left and how it's collected.'

There was also obvious anxiety about money troubles experienced by food SMEs. This was seen in comments like:

'Yeah, . . . money is so important for small business'

'Because money is the crunch for small businesses.'

'Our own people. . . it is just education. It is just educating them; it is just making them more aware because our full waste is money. It is money and whichever way or shape or form you look at it is money. . .'

One participant expressed the initial challenge of getting support concerning surplus food issues and food redistribution:

' . so it took a lot of handholding to get that, say, market in contact with the local authorities to okay that this can be distributed to a pig farm or to charity and stuff, what's edible. Once that relationship was made it was unbreakable, it's fantastic'

However, concerns were shared about food waste redistribution which could backfire:

'I think it is difficult simply because the companies are scared. But today even though you give somebody something free he will turn round and sue you.'

6.4.2 Interview Responses

Support for food waste redistribution was identified as a need area for food SMEs. This was coded to theme: BUSINESS SIZE INTERSECTING COMMUNITY

In the case of one HaF there was a boast about close linkage with customers and client awareness of their food waste action. This was coded from 'People Vibe, based on Local Agency:

'Well our customers know now what we do. They can read about it. They can talk about it. They can go outside the noticeboard and read something'

'Even people who pass the road can read it.' (with reference to their advertising about their CE practice)

In responding to the question about how HaFS were being enabled, it was clear that the engagement of the interviews and the focus groups was seen as beneficial. Some people noted that the toolkits that were provided were very helpful in learning more about food waste and how to make changes. The focus groups in particular allowed participants to hear each other 's views and the sessions were very interactive.

6.5 Findings pertaining to RO 3: Reporting on Focus Groups and Interviews

The focus groups were conducted and recorded during a TRiFOCAL ‘Step Up and Stop Food Waste’ campaign workshop. This was a cross-sector, collaborative setting with HaFS representation (including one Chef). Therefore, other stakeholders representing various disciplines and institutions also took part. The findings from these 2 focus groups provided information about outlining a relational circuitry for sustaining food SME adoption of CfE principles.

Issue Areas & Questions	Rationale & Potential Data Significance
a) What are the strategic sector relationships for helping to sustain HaFS’ participation in CfE efforts?	Innovation, Ethos & Sustainable Legacy examining underlying mechanisms of change for resilience and continuity Responding to the basic query: <i>‘HOW might HaFS’ participation be sustained so that they may flourish?’</i>
b) Who are the primary influencers/ stakeholders for progressing this?	
c) What are the implications for UK policy and further action?	

6.5.1 TRiFOCAL collaboration: A multi-faceted affair with multiple agents and actors

In some respects, TRiFOCAL’s organizational reach provided a relational space for HaFS regenerative practice. However, RO 3 above speaks of a *sustaining* capacity. In terms of inclusion, Korhonen et. al. (2018) admits the need for a range of collaborating stakeholders in order to achieve a CE. They offer thoughts on the subject from their own earlier work (2004), while referring to other researchers such as; Suering & Gold (2013) and Chertow & Ehrenfeld (2012). Overall, Korhonen et. al. (2018:41) see the issue as having complex dimensions. They inform us: ‘. . .CE extends current business or corporate environmental management systems in that, inter-sectoral, inter-organisational and inter-life cycle material cycles and energy cascades are encouraged for capturing the highest economic value possible in resources. Hence, CE could be a form of inter-organisational, and network environmental and sustainability

management. . .Inter-organisational systems tend to be self-organised. This makes their planning, design and management difficult.'

When it comes to HaFS fighting food waste, this statement would speak not only to the endemic nature of the problem (in the form of material and energy 'cascades') but also, the human aspects of its systemic features (i.e. 'inter-organisational' sustainability management, networking and information exchange). Of course, if we acknowledge that as humans, we are responsible for creating food waste in the first place- we cannot ignore human effort necessary for change.

Judging from the example of food corporates, in terms of SMEs, this involves joining with other actors in re-purposing food and redistributing what would otherwise be tossed out as waste also benefiting from any future savings. The logic behind using up surplus food is simple and straightforward: '. . .why throwaway food that can help to feed hungry people (or even animals)?'

It is worth noting that the BUSINESS SIZE INTERSECTING COMMUNITY theme came up in this context of HaFS taking initiative to reach out. This feeds into RO 3 and the notion of creating relational circuitry. One interviewee of a local HaF informed of support for a local school. In this case, the business bought vegetables grown by the students- no matter the condition of the produce. The idea was to encourage local children in food stewardship. At the same time, the kitchen staff were keen to include this produce into their menu planning. Additionally, based on their own in-house practice of cutting back on food waste, this HaF was also supporting cooking classes for the students. The discovery here was that a 'relational circuitry' was already taking place, as it seemed that the food SME had brought the school into their business supply chain. This was an example of added value in food SMEs working alongside other actors. It was a confirmed connection, based on trust.

The 'Scale and Balancing Act'/ Capacity was coded in both the focus groups and interviews as an issue of trust and 'connection' One vital link which surfaced was about market taskforces support food waste redistribution (or at least making re-purposing surplus food much easier). This topic of relational circuitry,

(operating locally and sustaining regenerative food business) is an area for further research.

6.5.2 Focus Groups

Some comments were shared about multi-stakeholder collaborating as a support for HaFS:

'Yeah they just need a connection. . . So that a local authority would come along and pick them up at the end of the fair and take it to the shelter for...'

In terms of primary influencers, this was a confirmation that HaFS could be influencers too. Although in one instance, an interviewee observed that it was vital to have an open link with the market taskforce.

The EHPs also came up as important collaborators in a circuitry of change. One person commented that:

' . . .the work of the environmental health practitioners . . .because they're people who will have contact with every food business everywhere and that's the opportunity to then pass that information on, so policies that promote that kind of behaviour is really useful'.

At the same time, another comment was made that:

'Common sense not reflected in food policy'

In reflecting about this Study's title, it was interesting that community connections were sometimes referenced with respect to: *'The people. . .'*

'Oh yes, the people know what it means.' - re: people responding to HaFS food waste action

There were some simple but provocative questions, with implications for further research. For example, one individual queried:

'So, it's what are the trigger points for people to take action?'

' . . .as far as our restaurant goes, we do what we think is right and when we think it is right and all we think it is right.'

These issues were coded to 'Integrated' Reconnections and assigned a theme WHO ARE THE PEOPLE IN MY NEIGHBOURHOOD?

6.5.3 Interviews

With respect to the complexity in helping HaFS through a shift to CE practice a number of issues were raised; this included concerns about staff training and related behaviour change HaFS' regulation of their own supply chains was seen as important in ensuring the integrity of their own food services and waste reduction. One HaFS owner-manager remarked:

' . . . we have our own vetting process which we send to all our suppliers, and they have to show us that they have sustainable good practice and what they use, how they clean, how they feed their animals, how they look after them, whether their welfare standard is very high and what welfare standards they work towards. Otherwise it is not...'

One interviewee remarked:

' . . .it is our culture not to waste'

'In terms of incentivising staff: 'If that helps. I don't have to sell it to the youngsters they just get on with it'.

With respect to the above comment about a culture of not to waste food, this thinking about value in waste is consistent with the Food Waste Hierarchy (Diagram 3) which outlines: prevention, recycling, recovery and disposal processes as areas that could be monitored along the supply chain (SC). For example, Muriana (2017:558) comments about food waste reduction, while mentioning the need for joined up, 'holistic and non-stationery' activities along the SC. One can assume that the people behind these 'holistic and non-stationery' activities work as (but are not limited to): suppliers, manufacturers, wholesalers, retailers, kitchen and other staff teams, consumers etc. SMEs that are HaFS operate somewhere along this chain, as their business entails food preparation and catering services. This is interesting in view of the fact SMEs were identified as *' . . .most strategic business collaborators in fighting food waste as an environmental problem'*

Lastly, I should mention here one unexpected discovery. This was a defined cadre of independent consultants and small consultancy firms associated with sustainable business; including food waste prevention. It would be interesting to

find out more about their role in creating a circuitry of change (RO 3) as collaborators. There may be niche areas for customized support in given to HaFS in combatting organic waste, areas of reverse logistics (e.g. packaging for takeaway services) linked to resource recovery.

In keeping with this viewpoint, this Study examines how such supportive partnerships might help to nurture food SME adoption of CfE principles. However, unlike much of the literature which spotlights business interconnections, this Study's contribution will be to examine basic 'community symbiosis'- that cross-sector expanse of: citizens, councils, academia, charities and agencies, made accessible to food SMEs and, accelerating the shift to a new way of doing business.

6.6 Who would have thought?: the significance of covid 19 for RO 3

Towards the end of field work (and during the write up for this Project) there was catastrophic impact on HaFS operations and also on dependent food supply chains. At the time of writing, the UK 'lockdown' and the related covid 19 crisis landed a brutal blow to the HaFS contingent of small business. In some instances, dairy, bread, fruit and other perishable food had to be discarded by HaFS personnel because of the closure of these restaurants, pubs and other food catering outlets. In other cases, rotting food and a glut of food items (such as milk and eggs) resulted from disruption in HaFS food supply chains. This meant that food orders which would normally be needed by HaFS had to be dumped, even before they reached the respective locations.

Quinlan (2011:370) cautions us; 'It is of utmost importance that the analysis and the findings from the analysis are grounded in the data'. Although this bad news did not affect the material that was already gathered from my field work, it did raise important questions about the survival of the sector. This included reflections about HaFS business resilience and particularly, where this fitted into this Study's RO3. Therefore, against the backdrop of these circumstances, I revisited the Study's critical realist change focus and, the information feedback and other relational business elements of systemic thinking. It would have been amiss to ignore the

disruptive realities of the covid 19 crisis on the food SME sector and respective HaFS.

I should state that there were two main considerations about the HaFS business disruption. Firstly, there was more deep thinking and reasoning about the implications of this Study's research question; *'How might cross-sector collaboration support HaFS in moving towards a CfE?'*. I concluded that in any case, this would only hold significance if these enterprises are able to maintain profitable business operation.

Secondly, I had a breakthrough thought that the catastrophe could be a platform for disseminating the business case against food waste - already central to this research. This would mean that preventing and curtailing food waste along food supply chains; in restaurant kitchens; delivery systems and in food disposal are all potential action areas. Attention to these areas might bring some measure of financial return for fledgeling or otherwise struggling enterprises.

This factor raised other thoughts about the significance of the codes and themes in the Study's findings and how these might be revisited in future research. For example, findings attributed to the 'Messaging/ Awareness Capture' code were also linked to a 'CAMPAIGNING' theme. The effort at cross-sector collaboration here reported favourably on TRIFOCAL programmes, food redistribution and food handling that prevented wastage. We can draw from this that similar campaigning about business savings for HaFS in the sector should continue. More emphasis might also be given to HaFS business relaunching, along the lines of circular business re-modelling.

Likewise, the 'People Vibe' code suggests opportunity for food SMEs in the hospitality sector to harness the agility of local relationships and networks for their own interests. This is indicated in the 'BUSINESS SIZE INTERSECTING COMMUNITY' theme. According to this train of thought, the current national call to 'Build Back Better' might encompass a mandate to also 'Build Back Local' (of course, in a collaborative way).

6.7 An RO3 'Circuitry' in operation

During the latter stages of writing, I was encouraged by hearing about one of the HaFS connected to this Study, which demonstrated local collaboration and the significance of RO3. It is noteworthy that this SME has been actively engaged in a circular food waste programme with a local school, other partners in the neighbourhood and food supply chain. One might consider these linkages as already proof of a circuitry of support. In response to the covid 19 financial trauma, clients and other partners set up an online fundraising campaign. Their gift of financial support assisted this food SME with both a re-location and a re-launch of the restaurant.

I have reflected about this community resourcefulness as a circuitry in full operation to support the business continuation of this particular HaFS. Collaboration made collective impact which went beyond just good wishes and mere talking. Bearing in mind that this SME was already engaging in waste redistribution and other circular practice, connection with the 'local agency' and 'People Vibe' codes, made an important difference here. In this case, practical support was afforded to a small business in a very desperate situation. The implication is that the business waste prevention commitments of that food SME will also continue to thrive.

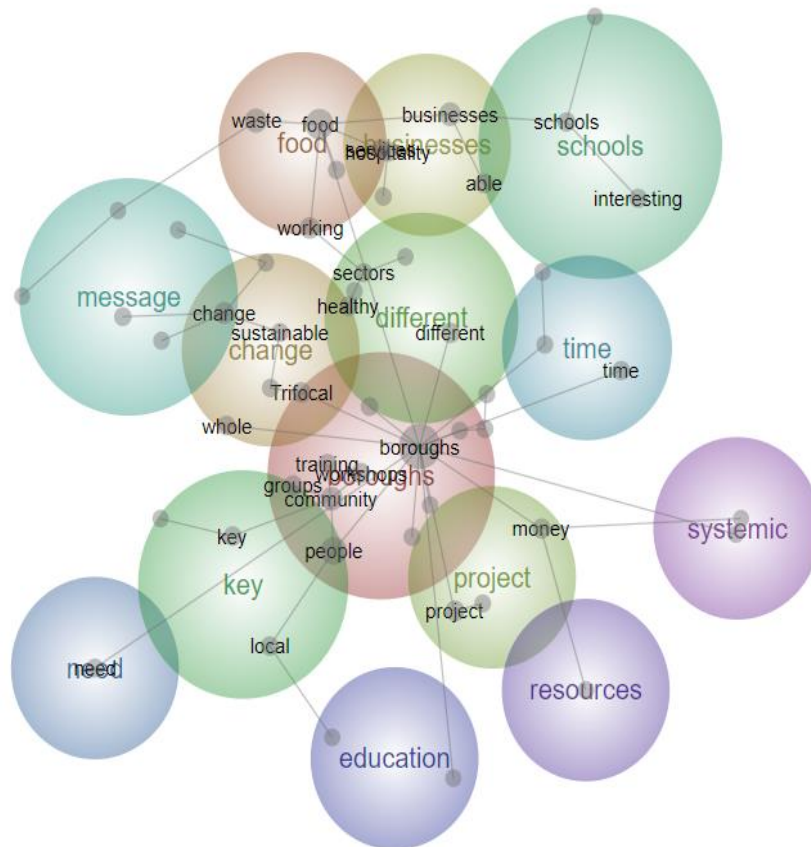
6.8 The Contribution of Leximancer to the Findings

Since Leximancer is a datamining tool which draws from interdisciplinary learning, it seemed appropriate for the cross-sector aspects of this Project. Pulling out concepts and entities from the inserted text had the added advantage of finding patterns or associations that would not be immediately apparent or much slower to detect, using a manual approach. I have included an example of the patterning arising from the transcribed interviews.

Leximancer word mining works by allowing concepts to be automatically highlighted from the data and to be placed into 'themes'. In the case of Figure 10 and Figure 11 below, these represent verbal word exchange- and indicate frequency of use in the interviews and focus groups. Leximancer also facilitates detailing of the connections between concepts, grouped in 'themes'. This is

because it accesses meaning by looking at words within their contexts. This tool really applies machine learning to the text and is incredibly fast in producing results (Smith, nd).

Figure 10: Concept Map of Transcribed Interviews



The Concept Map identifies 14 main themes (circular bubbles) which were pulled from the accumulated interviewing. This material spanned: 68 pages of transcribed responses. For the purposes of Leximancer, a 'theme is a cluster of concepts that share commonality'. This Cloud is visually stimulating as one is able to see the relationships between verbal sharing, word frequency and, how these translate as active themes. Additionally, Leximancer portrays the distancing between the themes. The Cluster Map at Figure 11 below portrays these same interviews but in another format.

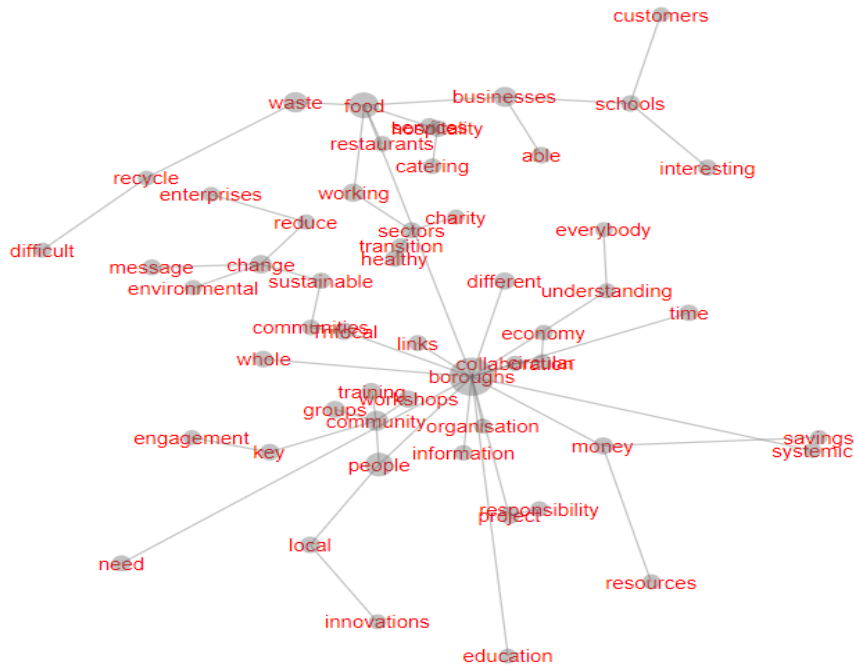
It is interesting to see that the most important theme and grouping of concepts is represented by 'boroughs'. This is determined by the deepened colour and also by size. It is encouraging to note that there is a direct linkage with the food waste

concepts. The theme's positioning is also very central in relation to others. If the term is being used here as a government administrative unit, this may indicate the respondents' perception about the role of local government. Specifically, it may suggest that Councils (as representative of boroughs) are considered as major players in convening support for HaFS regenerative business. Notably, training, people and community are linked concepts within this large theme. This is an interesting finding in response to the Study's research question. It suggests that policy and related incentives could be seen as off shoots of councils.

However, there is another interpretation to this finding. If 'boroughs' here are interpreted in terms of geographical location, this would indicate, another type of centrality. In this particular case, it would be that the physical confines of boroughs are considered strategic in supporting HaFS in their waste prevention mission. This is thought-provoking, with other implications at the local level, especially since the 'collaboration' concept is also located within the circle.

Leximancer's use in this Study was experimental. The above-mentioned discussion is just one example of how it produced another level of coding and sense-making from a small segment of the data corpus. In reality, the potential for cross referencing of themes and concepts is vast. This is especially if there is juxtaposition between the findings from the manual coding and, the electronic findings. I imagine there could be interesting comparisons and contrasts.

Figure 11: Cluster Map of Transcribed Interviews



6.9 Summary Conclusion

This Chapter presented the Case Study's findings. Eight broad themes connected to eight original codes and subcodes were distilled from a wealth of information. This was done using a basic abstraction approach. The combination of findings from the literature, Participant Observation, stories and many comments shared by interviewees and other stakeholders provided testimony.

It is clear that the London TRiFOCAL Project was a significant 'collaborative space' for awareness and engagement about regenerative enterprise. SMEs that are HaFs benefited from this interaction and exchange. This was not as a specially targeted group but because SMEs already hold numerical sway within the HaFS contingent of businesses. Additionally, TRiFOCAL had a broad scope. Its collaborative elements were persuasive about circular uptake and about beating food waste.

We can gather from the findings that a business 'value shift' is in motion and gathering pace. We should especially note that some food SMEs are already working with other local actors tweaking operations. . . doing business in a more restorative way. These collaborators seem to be in agreement that 'enterprise is

only a tool of its socio-ecological context' (Heikkilä, et. al. 2016). It does not qualify as equivalent standing.

CHAPTER 7 Opening up Side-Doors: Conclusion

'We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. . .' Martin Luther King ('Letter from a Birmingham Jail' 16th June, 1963)

7.1 Reflections: An Overview

The food waste, CE discourse is moving beyond technical and biological aspects of linear supply chains. There is now growing appreciation for the systemic nature of the challenge and the role of organized people participation in bringing about change. This qualitative Case Study examined the issue of support for HaFS uptake of circular practice and stopping food waste. It was guided by the research question, applied to the London TRiFOCAL Project:

'How might cross-sector collaboration support food SMEs in moving towards a circular food economy (CfE)?'

TRiFOCAL's collaborative space revealed a common appetite for change in beating food waste. This ambition included HaFS in the food SME subgrouping. It fostered collaboration and outreach to people groups, spanning: businesses, schools, community agencies, neighbourhoods, professional associations; councils and other public agencies. These widespread collaborators were not defined by conventional business supply chains. In the case of HaFS, cooperation laid a foundation for awareness about food waste regeneration and, how owner-managers might increase savings, by revisiting their business models.

This collaboration also allowed access to networks, tools and resources which became referral points for how HaFS manage organic resources and waste streams. The potential here is not only about cutting back on food waste but curbing the waste flow of information that may otherwise sharpen HaFS business delivery. As there are multidisciplinary considerations, an integrated policy stance and measures which complement this are definitely needed. The dual

combination of thinking systemically and CST, with reference to Critical Realism offers an interpretive framework to inform such enterprise policy. This is symbolically likened here to 'opening up side-doors' and thus, embraces Midgley's (1996) version of critical systems thinking as an evolving discourse.

This qualitative Case Study examined how collective support across-sectors might enable London-based HaFS to combat food waste and to pursue more CfE measures. As noted above, the Case was the cooperative element of the London TRiFOCAL Project. With its commitment to programme delivery, across-sectors. TRiFOCAL brought together private/ business, public, third sector participation and, also academia. Evidently, there are themes of plurality, empowerment and complex interfaces that ran throughout this Study. Whatever the conclusions, at least there is a chance to find out how beating food waste might help to remedy shrinking HaFS budgets.

In terms of current crises, one might consider covid 19 as also an opportunity not to be wasted. What is clear is the need for an openness to innovation and flexibility regarding business transformation and in this respect, local empowerment is important. It may be that in the UK we can learn something from the Brazilian notion of 'jeitinho'. In her thesis about business resilience for SMEs 'in turbulent times', Häner (2011) refers to this mixture of innovation, determination and reciprocity as a cultural strength.

7.2 Discussion on Findings and Policy Implications

In terms of moving towards a CfE, this Study's findings emphasise the policy role of third sector agencies, working alongside HaFS and opening avenues for business engagement and development. At the same time, the health and education sectors stand out as strategic partners. Therefore, this qualitative Case Study has major implications for UK policy about food SME uptake of more circular efforts.

The findings indicate that enabling the HaFS grouping of food SMEs in more regenerative business is a human participation management issue. It requires an 'owned' (as opposed to an inferred) approach to business philosophy, which

informs values for attitudinal and behavioural change. Cross-sector collaboration is an outgrowth from this thinking and a vehicle for its continuation. This is because it increases the chance for meta-organisational planning, based on knowledge and the agility of smaller groups. However, by taking the hybrid approach (inherent in critical systems thinking), business transformation for HaFS that are SMEs requires an alertness to the differentials of organizational power and access, which impacts all parties. This is important to keep in mind so that such HaFs are not relegated to permanent 'Cinderella status' within the wider hospitality and catering industry.

I imagine that there would be few among us who have not benefitted from a HaFS meal at some time in our lives. Whether in the form of a catered school dinner; a quick sandwich grabbed from the local 'Greasy Spoon'; a Friday Night Takeaway or grub from the local pub, HaFS contribute to the diversity of our OoH food access and meal provisions. This means that the *hospitality* element defining HaFS is an exceptional factor. It confirms that food services help to flavour everyday living and often so in pleasant ways. This brings us back to the *familiness* theme Habbershon, et. al. (1999) and the notion of 'business operating *within* community' which were discussed in this Study's literature review.

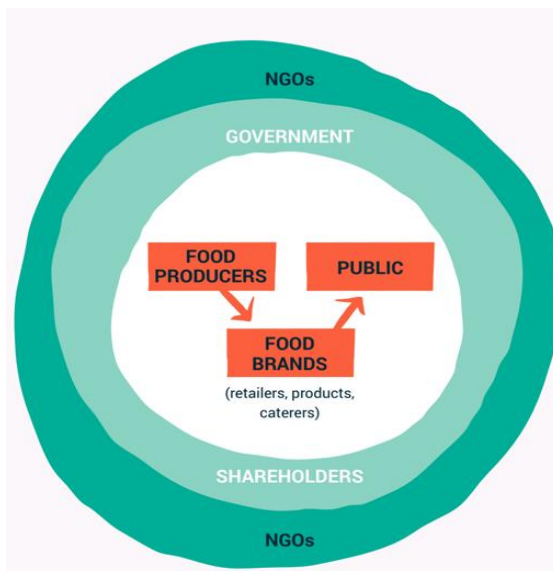
It is clear that the food waste debacle involves complex systemicities (e.g. bio-environmental, health and sanitation, economic, heritage, educational). Although acknowledging the practical side of business waste metrics, this qualitative Case Study examined the social aspects of promoting regenerative business, towards a Circular Food Economy. In the case of TRiFOCAL, this collaboration took on a dynamic involving multiple stakeholders. The findings show that according to responses and ideas shared by some of the HaFS owner/ managers (and other participants) many practitioners are onboard.

7.2.1 Food Citizenship: Policy for New Partnership Modalities

At the same time, the sphere of responsibility actually extends *beyond* HaFS and their food supply chains. - all citizens are important actors in implementing food valorisation. This means that policy support is required which actually supports HaFS, in helping their staff teams, supply chain personnel, customers and

neighbourhoods to tackle underlying wasteful food practices. The emphasis to be noted here is on *helping HaFS*. During the interview and focus groups, one respondent referred to such ‘hand-holding’ for encouraging business transformation. I would argue for some caution regarding how such supportive national policy is defined. For example, in the case of policy measures to promote Food Citizenship, it is important that this is defined as a feasible cooperative movement to secure our food system and the natural biosphere in which it thrives. It is important that the subject is not presented as merely a ‘grass roots’ movement. Rather, Diagram 14 below puts the public at the very centre of the discourse.

Diagram 14: Food Citizenship and the Food System



Source: Food Citizenship: How Thinking of ourselves differently can change the future of our food system, (2017) p. 10.

Food Citizenship implies that there are blended citizenry roles as: food suppliers, chefs, customers, householders etc. (New Citizenship Project, 2017). This means that an informal status lies behind every formal business function. Koc et.al (2008) are adamant that Food Citizenship has an important role to play as a people movement. This is not only in promoting green business but also providing the cooperative framework to ensure its success. When we take on board the key issue of people management, we can agree with Koc’s research

team about dual functions in business transformations. These work through ‘. . .an organisational framework that facilitates individual member action’.

In more contemporary times, Petitin (2020: 8) comments on the Food Citizenship matter. She outlines four aspects. It is interesting that her overview includes some of the value-laden factors discussed in the Chapter on Philosophy. For example, since information exchange is also noted as critical for any business uplift, Petitin advises about finding place for: ‘true information’ that restores ‘faith and trust’.

This discussion implies the need for supportive policy measures which assist HaFS in incentivising kitchen staff and other staff teams. These actions could be fashioned as collaborative ventures. Furthermore, according to critical systems thinking about ‘methodological pluralism’ (Midgley, 1996:14), this could likely result in new partnership modalities for dealing with business waste. In practical terms, this would mean reaching beyond a traditional view of ‘the supply chain’ to involve interest groups, the local neighbourhoods of HaFS and also their ‘online’ communities.

Against the above backdrop, we can gather that resource efficiency and eco-management are crucial action areas for the hospitality SME sector. This should come as no surprise in the midst of the covid 19 crisis and existing climate concerns. There are increasing demands from business as a whole. The regenerative principles of a CfE at least offers some promise for more environmentally aligned SMEs. After all, SMEs represent the smallest unit grouping for business. By harnessing partnerships and cutting back on resource wastage (as with the corporates), these enterprises are positioned to reap essential savings.

7.2.2 Education for Sustainable Development, Health & Wellbeing

It is interesting that there were no visible representations of the education or health sectors in the SSM Rich Picture created during this Study. Higher education was also out of the picture (literally) and there was no reference point

for universities and for ESD. I found this to be ironic in view of the fact that this PhD academic research was eventually conducted alongside the TRiFOCAL project. This proves that there is a role for academic and health focal points in supporting HaFS transition to more regenerative business. Specifically, Environmental Health Practitioners were flagged up during TRiFOCAL workshops as being strategic helpers in supporting local action against business food waste.

This underscores an earlier point that cross-sector engagement might be adapted to further HaFS participation in waste to resource and other circular practice. This is especially since the sanitary upkeep of restaurants; cafes and other food outlets directly relates to how HaFS deal with organic waste. Then, there is room for collaboration around: revisiting menu planning; addressing surplus food; eliminating packaging and other waste flows. I should stress here inclusion of any *waste flows of information* that can otherwise support HaFS in business remodelling (such as including food redistribution).

The connection between health and education may also provide a social space and training ground for other sectors. More specifically, education is an obvious conduit for supporting enterprise at the preventative end of the food waste hierarchy- that does not hurt humanity or our environment. Lazell, (2016:4) therefore refers to the need for appropriate policy in order ‘. . .to move away from the individualised approaches that frame the problem of food waste at the consumer level in order to account for behaviour to wider factors. . .’ . This point reiterates argument about HE pedagogy about education for sustainable development, how it is interpreted and delivered. There are implications for curriculum enhancement, transdisciplinary and cross faculty networks that promote ESD. Relevant input from schools and HE could foster a training ground for all other public disciplines (e.g. including environmental studies, hospitality management and public health).

I acknowledge that this vision means entertaining some measure of heterodoxy (Lawson, 2006) in dealing with HaFS that are SMEs. This view also lines up with the belief that transformative business and economy are actually achievable (Zeleny, 2005). It is therefore a unifying premise from which to discuss research

purpose. For example, one aspiration behind this Study is to expand both theoretical and practical knowledge about how cooperation might enable business change. Any insight gained may inform other academic work, policies and strategies for efficient stewardship of SME business resources.

7.3 Contribution to Linking Practice with Theory

Perhaps one key contribution from this research is discussion about the role of philosophy as a missing element in the CE discourse and for that matter, other 'green business' efforts. It is a curiosity that concepts with such ethical claims would be attempted (or even taught), largely in theoretical and practical contexts but without significant philosophical reasoning. One wonders whether this superficiality and lack of debate at that level might actually threaten current efforts to 'sustain sustainable business', over the long term. The socio-ontology framework offered by this Study (Diagram 7) is now available for further critique and development by other researchers. It could be a vital connection between practice and theory.

Moving on from this point, this qualitative Case Study was possible because of working relationship involving the WRAP/ TRiFOCAL team, business and other community practitioners and, MMUBS. Essentially, it was systemic thinking and engagement in action. In their writing entitled; "Systemic Engagement: Universities as Partners in Systemic Approaches to Community Change'. Miles et. al. (2015) make a case for refreshing understanding about such cooperation.

Lazell (2016) already highlights this Study's food waste and partnership themes by applying them within the university setting. The title for his research is self-explanatory: 'Consumer food waste behaviour in universities: sharing as a means of prevention'. Lazell took a behavioural approach to understanding individual food waste among campus students and staff. He also looked at how the institutional contribution of the university space facilitated this and concludes: 'Food waste within universities can be attributed to an amalgamation of routines and habits with behaviour determined by the prevailing nature of practices and the associated behavioural norms within this space. . .' (Lazell, 2016.18)

Given that universities embody students and staff who are also citizens, Lazell's contribution is significant because of its inclusive but preventative stance regarding food waste. Adopting this position would mean the end of perceptions about universities as 'ivory towers' that are isolated from the rest of society because of 'higher' knowledge. In his writing: 'Helping business schools engage with real problems: The contribution of critical realism and systems thinking', Mingers (2015:318) outright roots the issue in a '...lack of practical engagement'. Thus, using critical realist terms, the call might not be about 'high' status but 'deep' purpose. Whatever the case, there is growing admission that we need more opportunities and working examples of such NGO/academia/industry partnerships (Trencher, Yarime & Kharrazi, 2013).

7.4 The Challenges and Limitations of this Study

It is fair to say that this qualitative research has taken a wide approach to an endemic, complex problem in relation to people, organisations and business. From the beginning, it attempted to pull together fairly disparate concepts. There were no pretensions to positivistic interpretation of reliability or generalisability. My earlier discussion in the methodology section explained the position. Therefore, this work is best described as elemental. It is expectant about follow up and inputs from other researchers. I invite colleagues to sift, to assess and to select whatever is useful for development. This is especially because there are other important aspects regarding the SME focus of the investigation.

Admittedly, the Study's research design could have been improved. One major challenge was in planning and delivering the multi-methodology approach. Even as casework, it was still attached to an Action Research project (TRiFOCAL). This meant that there was another level of complexity and protocols and sometimes, a dizzying pace to maintain. Additionally, there were coordination and administration issues which arose. These delayed progress of some milestones.

A second spate of interviews after the 2 focus groups might have allowed deeper investigation and also increased the sample size, beyond the 8 interviews. This could have meant more discussion and further insights pertaining

to the collaborative themes of this Study. It would also have afforded opportunity for interaction with partners and more validation of findings.

It was also disappointing that the TRiFOCAL strategy still seemed limited in its SME stretch. Apart from restaurant and other food groupings and affiliations, the inclusion of strategic small business networks such as the FSB, may have expanded opportunity for messaging to food businesses in that constituency. Furthermore, this may have increased opportunity to spread the anti-food waste messaging to other industry groupings associated with the FSB. As a result, it would have deepened the community scope and legacy of TRiFOCAL.

At sometimes during the data collation, complex terminology and acronyms needed to be explained, beyond the brief in the Participant Information sheet. The Reader may be surprised to find out that this articulation was necessary on both sides of my information exchange. I found that many of the specialists, practitioners and other stakeholders used industry-based acronyms and shortcuts when speaking about food waste and in discussing circular business. This was largely because TRiFOCAL meetings and engagements brought together multidisciplinary stakeholders with their own jargon. It is important to be prepared to work through this- especially in cross-sector settings.

7.5 HaFS, covid19 and Circuitries of Change

To date, the hospitality sector is still reeling from the impact of covid 19 and its global financial catastrophe. Many hotels and other accommodation, fine dining, pubs, catering and quick service outlets remain in 'free-fall' and, this includes some of the HaFS that participated in this research. However, this situation also provided some good reference points for RO 3 in this Study. In this case, outlining relational circuitry is not limited to food waste action but it involves wider support for HaFS business recovery and continuation. As I write, the prognosis for some parts of the sector (e.g., pubs, as a national heritage institution) is still daunting. Foroudi et. al. (2020:1) quotes recent Statista records for the UK and informs us about this dangerous financial dive experienced by HaFS:

'Restaurant groups experienced a significant reduction in sales (21 %) in the week previous to the announcement, compared to bar dropped sales (14 %). Restaurant sales declined 52 % on 17 March 2020, and a few days later went down to 82 % when the restaurants were forced to close.'

In contrast, there has been a prosperous surge for other food enterprises, especially some corporates and international chains. Admittedly, there has been some backlash and reasonable concerns about the over-purchasing of food. This has impacted household and business waste in the food retail sector but despite this, larger food chains and hospitality outlets are strategizing around covid-safety regulations (and marketing costs). In terms of cutting back on resource waste, they are taking opportunity to re-haul menu planning, review food cost savings and to adopt new approaches to OoH (Out of Home) catering. In their recent study on the post-covid US hospitality industry, Ju Song, Yeong & Lee (2021) specify the variable of business size as allowing some leverage for business resilience (in addition to the internationalization factor). According to this finding, it appears the HaFS in the SME segment will continue to face acutely challenging times. This suggests a role for relational circuits of loyal customers and industry helpers, as originally noted in RO3.

Despite covid-related costs, it seems that other food enterprises such as supermarkets (both corporate and SMEs) have benefited from business continuity during the lockdown experience. While these food retail services have been able to maintain custom- apart from the size factor and economies of scale, the most glaring limitation for SMEs in hospitality and food services has been their 'non-essential' categorization. Once again, a working circuitry of support would demonstrate a type of advocacy for the HaFS grouping.

Since covid 19, sustaining business resilience and a CfE have definitely come more to the forefront of food discussions. When speaking about the need for a circular approach to food enterprises, Lena Gravis of the Ellen MacArthur Foundation (2020) comments: 'A shift to a circular economy for food is now more relevant than ever since it helps create a system that is resilient to shocks while meeting global demand, delivering healthy food, and providing good livelihoods for

farmers.’ Despite the international application and reference to farming, this is a basic argument. There still implications for HaFS in the supply chain.

Bearing in mind all that I have learnt from conducting this Study (and from participant observation), I have reached the above conclusion as a ‘food citizen’. Based on conversations taking place between public institutions and third sector intermediaries (such as ‘Hospitality UK’), the concerns for the HaFS sector are disquieting.

Petetin (2020:1) also contributes to this reflection about the impact of covid19 and the disconnect between the capacity of food retail business delivery and HaFS. Petetin also embraces the significance of food citizenship as a multi-stakeholder affair and comments that: ‘. . . In particular, food democracy (sometimes also called “food citizenship”) provides a model for multilevel food governance to be followed post-coronavirus where a wide range of actors are involved in the design and delivery of future food systems.’ This would be an example of another operational circuitry of change. It seems that this part of the debate is assuming a philosophical position of ‘business working *within* community’, as was discussed earlier in this document.

The food citizenship concept connotes mutual responsibility for dealing with food waste and promoting regenerative enterprise. The Study’s title about the people’ is a hint about such interest groups, individuals and collectives, which exists across sectors. Within this context (and in responding to covid 19), HaFS business innovations have provided new outlets for re-purposing surplus food that would otherwise be wasted. In some instances, the lockdowns have forced a shift back to the basics of home cooking. Covid 19 has also led to a growth in food citizenship activities such as maintaining household kitchen gardens; local sale (or distribution) of vegetables boxes and other food produce. The ‘OrganicLea’ workers food movement which operates in the London hinterland is an example of the latter service which is available as part of a support circuitry for local HaFS.

This shift in emphasis and service type is therefore provoking imaginative responses from the HaFS sector. It is flourishing outside the operations of their traditional supply chains where HaFS operate at the ‘fork end’ of service. Some businesses are even using customer friendly initiatives such as: drastic discounts

on meals. Others are collaborating with community agencies to deliver CE waste prevention programmes such as 'Zero-waste cooking classes'.

Developing working linkages with sustainable food markets is also another expression of participation in local circuitries of change. Ironically, this means that while some food SMEs were forced to shut down, new business ventures are poised for start-up catering and food services in the City. There are a host of other innovations which relate to cutting back food waste and these have been happening despite the covid 19 lockdowns. Some HaFS have switched to completely new food services such as customized grocery delivery (e.g.s Elysia Catering & Giant Peach). Other examples include B2B collaboration to cut costs. This includes sharing cold storage so that there is less wastage of perishable food. This particular approach is mostly adopted by hotels and restaurants.

Despite government furlough concessions, those food SMEs that have been able to remain in operation are still under pressure to reduce staff teams. Other measures include workload re-engineering and multi-shift assignments for kitchen and other employees. In short, the crisis has triggered dramatic management changes for HaFS. These are significant in looking at how cross-sector support might help to buttress HaFS business continuation, even while designing out waste.

At the same time, some unexpected innovations are taking place. Wherever allowance for continuing service has been given, HaFS have opened up beer gardens; erected 3-sided marquee tents in nearby carparks and utilized other external spaces in very creative ways. Some businesses have shifted to the OoH food market or enhanced their Takeaway systems by investing in this part of food services. Other HaFS have used 'lockdown' as an opportunity to refresh tired infrastructure and to reconnect with customers while preparing for a re-launch of services.

These are all opportunities to integrate messaging and action towards a CfE. Some enterprises have taken up this challenge by joining networks of community kitchens, schools feeding initiatives and food redistribution alliances. Across London (and other parts of the UK), there are stories about such new circuitries involving: HaFS business owners, chefs and other food enterprises that have

volunteered personal time, surplus food and other resources to help to feed the homeless and also households in need. 'Streets Kitchen' is an example of a grassroots people movement that is blazing an advocacy trail- providing food and other services for homeless persons in London areas such as: Dalston, Camden, Kilburn, Tooting, Shoreditch and the Archway. Apart from food businesses, this cross-sector partnership includes representatives from the health sector and Councils, joining forces to assist homeless persons during the covid crisis.

Another example of innovative collaboration is the emergence of 'dark kitchens' (McAllister in *Big Hospitality*, 2020). These allow new business models for restaurants by selling prepared food boxes or meals for households. This is an enterprise niche area because of individuals and families that lost their jobs or are now on significantly reduced household budgets. The point to be made here is that the anti-food waste element in many of these initiatives is emerging as a priority. It is along the lines of the 2019 WRAP Campaign to become 'Guardians of Grub'.

Another contributing factor which is strengthening these processes is the use of social media platforms that feed into a digital circuitry of support. These are allowing redistribution of what would normally have been wasted food. Apps such as 'Too Good to Go' is an example of this. Apparently, this scheme now uses a 'Magic Bag' system (meaning you do not know what is in it until you actually purchase it) to sell surplus food at reasonable prices. Other food waste redistribution networks which connect HaFS to other stakeholders require coordination and people management. This relates to the points made earlier in this Study about a meta-framework of inter-organisational management. These activities all demonstrate the cooperative themes within this Study. They are especially worth noting because of the original research objective (RO 3) to outline what a relational circuitry of change might look like.

7.6 Key Recommendations

The covid 19 and related lockdown means that even where HaFS are continuing services, they are unable to continue business operations, as usual. This has flagged up two important points about the national food system. The first pertains to viewing UK food security as a means of averting food poverty, an alertness to

disaster mitigation and general national preparedness. Based on the current climate change arguments and other circumstances, it would be foolhardy to assume that these concerns are only relegated to poorer countries (within the dictates of 'international development').

The other issue relates to the resilience of HaFS and the need for so-called 'future proofing'. There are two aspects to this. In real terms, this should be considered as not only a wide business sustainability issue. It is also a specific matter about helping to secure the future of the hospitality industry in the UK.

Overall, the Study's findings confirm that HaFS in the SME sub-group are located within a complex food waste scheme that is essentially a human participatory system. The intersection of HaFS business size and their access to local community should be exploited. It provides an opportunity to support an active 'beyond business' presence in their neighbourhoods, as ambassadors of CE practice. This is an important invitation for local councils and relevant programming. For example, more incentives and supportive measures from EHPs and other council representatives might help to boost HaFS participation in fighting business waste. This means that in light of the growing people vibe, there is further potential for every local council to gather a critical mass around food waste prevention.

At the national level, the education and health sectors have a significant role to play in enabling these recommendations. The ambition would be to help mobilize and to equip the HaFS sector for more regenerative business. Specifically, there are implications here for refreshing curriculum design in schools universities and colleges. There is also an opening for these same institutions to explore more non-formal delivery of education and basic training. Such efforts would be integrated but transdisciplinary in their style and CfE focus.

Foroudi et. al. (2021) hold the view that an important part of responsibility for this collaborative opportunity should be taken up by HaFS. This would include more alertness to their own customer bases, with attention to trust, transparency and '...how the flow of affective meanings from the pandemic narrative is reshaping the consumption landscape and the desire of consumers, with profound and long-lasting implications for both consumers and producers alike' (Foroudi et. al

(2020:1). Based on these comments, there is an opening for future research about food SME transformations and their creative shaping, towards a CfE.

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Appendix A: Original PhD. Poster



'We The People: Supporting Food SMEs Towards a Food Circular Economy'

Toni Burrowes-Cromwell, Prof. Alberto Paucar-Caceres & Prof. Susan Baines
Manchester Metropolitan University Business School
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POTENTIAL FOOD SME PAYBACKS

Sector	Cost of avoidable* food waste		Cost of total** food waste
	(Pence/meal)	(£/tonne)	(£/tonne)
Restaurants	97.29	4,775	3,447
Quick Service Restaurants (QSR)	13.57	4,506	3,511
Pubs	41.48	2,896	2,090
Hotels	51.62	6,332	4,008
Liveware	45.98	5,833	4,038
Staff catering	5.25	2,980	2,208
Healthcare	22.26	2,384	1,929
Education	22.38	2,535	2,075
Services	42.97	1,971	1,656
UK Industry Average	38.08	2,700	2,775


*Source: WRAP - The Food Loss and Waste Reduction Hierarchy and Food Service (2011)

FOOD WASTE! This UK discourse is moving beyond technical and biological aspects of linear supply chains. There is growing appreciation for the systemic nature of the challenge and, deepening focus on the human dynamic for sustaining change. Hence, fresh mindsets, cross sector relationships, information exchange and collaborative tools are gaining deliberate interest. This wider framework locates food SMEs (small and medium-sized enterprises) in a dense food waste system, where working alliances with other actors (e.g. citizens, councils, academia, charities) are essential. This study is about such support enabling food SME transition to circular business. The aspiration is for a food circular economy in which these enterprises are able to flourish- despite complexity of size, scale and setting.

AIM: To examine how cross-sector collaboration might support food SMEs in tackling food waste, towards more circular enterprise

OBJECTIVES

- To locate an example of multiparty support involving food SMEs, in order to understand the complexity of helping these enterprises shift to circular practice
- To identify key elements in sustaining participation of food SMEs in food circular business efforts
- To support development of a relational circuitry in which food SMEs circular business may flourish



BUT HOW? The 'real world focus' for this Case Study entails a multi-party 'hub' of stakeholders (e.g. citizens, charities, academia, councils) supporting food SMEs, towards reduction of the 1 million tonnes of annual food waste from this grouping- costing £2.9 billion per annum and 75% is edible! (WRAP, 2019). Qualitative enquiry methods include: participant observation, semi-structured interviews and focus groups.

SPECIAL CONTRIBUTIONS

Extant studies highlight the need for supportive policy, technical and funding support for SMEs. Using a systemic approach, this project will build on current research by examining collaborative elements affecting SME circular business practice. It will be alert to food SME diversity of: size, scope, specialization and community setting. This study will help to:

RESEARCH THEORY

- ✓ Inform viewpoints about supporting SME resource efficiency, in an emerging UK circular economy

✓ Outline a relational 'circuitry' for supporting food SME participation in circular business

RESEARCH PRACTICE


✓ A defined research approach for enabling food SME resource stewardship, towards a UK food circular economy

WHAT COULD REALLY CHANGE

Business support which is more sympathetic to food SME capacity could help these enterprises to thrive. Many enterprises are already embedded within neighborhoods. This accessibility is strategic for closing information/ participation loops (ie: designing out waste, optimizing yield & food resource redistribution). Community stakeholders also stand to benefit from savings

WHAT NEXT?

Currently in the field- observing and writing!



Contact: toni.burrowes-cromwell@stu.mmu.ac.uk

Appendix B: Participant Information Sheet and Case Study Protocols for Ethical Research

We the People: Supporting Food SMEs Towards a Circular Food Economy'

Hello, did you know that small and medium-sized enterprises (SMEs) make up over 99% of the UK private sector? They represent 96% of our food sector, with an annual turnover of £24 billion (Defra Food Statistics Pocketbook, 2015)? Such businesses include: restaurants, cafes, hospitality services, school meals etc. Yet, large food businesses dominate our food waste action stories. They reap business visibility and other benefits through community partnerships. Thus, it seems that strategic alliance against food waste does matter. Hence, you are also invited to take part.



What is the purpose of the project?

The idea that waste could be food is central to a 'Circular Food Economy' (CfE). Turning 'leftovers' into a delicious meal (and feeding hungry people!) is just one practical example of CfE effort. There are other illustrations for getting maximum value from food, while preserving our natural resources. It takes cooperation and organisation to make this all happen. This project looks at how people collaboration across-sectors (councils, charities, other businesses and organisations) might help SMEs to get on board. It will inform viewpoints about enabling SME responsible

business to reduce food waste in the food sector.

So, why have I been chosen?

Because you fit the criteria for participation. You may have some experience with the topic, work in one of the 'sector' groups or perhaps, be able to contribute in some other way.

What would taking part entail?

Participation is voluntary. You may agree to an interview (no more than 40 minutes!), a small group discussion ('Focus Group') or even contributing to a workshop. No further contact would be required unless the researcher requests special follow up/ clarification. This would be subject to your consent and convenience. Your input is really appreciated but you are still free to withdraw at any time.

What are the possible disadvantages and risks of taking part?

There are no foreseeable risks or disadvantages in taking part.

What are the possible benefits of taking part?

We all eat and therefore, everyone could benefit from learning about reducing food waste and, finding out what others are doing to tackle it. This information may be personally challenging but there are potential savings to be made. These benefits are not just for your work or business but for your household budgeting (food shopping, meal preparation, nutrition etc.), neighbourhoods and wider community needs.

Will my taking part in this project be kept confidential?

MMU is committed to high ethical standards and all research is subject to ethical scrutiny and approval. This project is supported by these information security guidelines, researcher GDPR training and additionally, an existing Agreement between WRAP and the University. Any information that we collect during the course of the research will be kept strictly confidential.

Access- Is available *only* by login and user ID on a personal device

Support- Any transcription support will be according to MMU compliance and security standards

Storage- All notes and hardcopy information for this project are being stored safely. Electronic material is on password protected hardware. It is back up on a personal MMU 'H Drive', with VPN access (again, including sole user ID and password protection)

Sharing/ Communication – Data gathered from any interviews, focus groups will be written up as part of the final Dissertation. However, as the project's focus is on cross-sector collaboration, a special coding system is being used. In writing up, this would be representative of the sector of engagement, not of any individual. Hence, participants will not be identifiable in any reporting or publications.

Destruction/ End of Life Cycle – Any interview recording is only with permission of the respondent. The information is only for the life cycle of this project. Once information is processed and finally documented, any recordings, hard copy notes of interviews/ focus groups etc. will be destroyed (in a way that makes reconstitution unlikely). The Electronic H Drive and Email repository will also be wiped clean.

[What will happen to the results of the research project?](#)

The findings will be written up as an academic study. Upon request, an Executive Summary may be provided for any participant who would prefer a quicker reading version or follow up with new learning or recommendations.

[Who is organising or sponsoring the research?](#)

This research is for the purpose of completing a PhD. dissertation at Manchester Metropolitan University. It is supported by a Supervisory team of three (3) academics who have worked with small enterprises and have a deep interest in promoting responsible business. There are no private sponsorships or other business patronage associated with this study.

Contact for further information

Should you need further information, please contact the Researcher: Toni Burrowes-Cromwell at: Toni.Burrowes-Cromwell@stu.mmu.ac.uk

Thank you for your kindness, taking the time to read this information and for any offer of assistance.

Doctoral Researcher: Toni Burrowes-Cromwell
(SMEs & Circular Economy)
Operations, Technology Events & Hospitality Management
Manchester Metropolitan University Business School
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Participant Consent Form

Name of Study: ‘We the People: Supporting Food SMEs Towards a Circular Food Circular Economy’

If you agree to take part in the above study, please complete (tick and sign) below to confirm your consent:

1. I understand the purpose and goals of this project, as outlined in the attached Information Sheet
2. I am happy to volunteer my support to this project and, I am aware that I may withdraw my participation at any time.
3. I understand that interviews may be sound recorded to facilitate information gathering and analysis
4. I give my permission to record my interview or other participation
5. I do not give my permission to be sound recorded but I am still happy to provide an interview or other participation

Name: _____ **(Please print)**

Signature: _____

Date: _____

Participant information in case of observation of any telephone interviews:

"We are being joined on the line by Toni Burrowes-Cromwell from Manchester Metropolitan University, who also attended the WRAP TRiFOCAL workshop on the 20th June. Toni is conducting some concurrent research - for the purposes of completing a PhD - into how cross-sector collaboration might help HaFS SMEs to take action to reduce food waste. Your responses will inform the PhD findings but will not be written up or reported in a way that identifies you or your business."

Appendix C: Example of the Interview Schedule

We the People: Supporting Food SMEs Towards a Circular Food Economy'

INTERVIEW SCHEDULE

NAME:
 ROLE:
 CONTACT NO: _____

SECTOR CODE:
 DATE:
 EMAIL: _____

'Project in a Nutshell':- 'This study is about how cross-sector collaboration (joined up working of businesses, government and other organisations) might help food SMEs (Small and Medium-sized Enterprises) to value food waste as a resource. The idea is that both business and the rest of society may flourish. You were invited to take part because. . . '

JECT AREA	N QUESTIONS
<p>Defining and Articulating Inter-relationship</p>	<ul style="list-style-type: none"> - Tell me how you first learned about TRiFOCAL. . . - Where would you now place your agency/business/organisation focus, in terms of TRiFOCAL's agenda to beat food waste (prevention/ reduction/ re- purposing/ redistribution etc.)? Please explain and indicate (free-hand Rich Picture drawing) - In your imagination, how might working across-sectors help HaFS to meet TRiFOCAL goals? - Who would you deem as key partners in achieving this? (local authorities, businesses etc.) Please explain. . .
<p>Awareness, Communication & Collective Impact</p>	<ul style="list-style-type: none"> - What would you say are the primary ways of supporting HaFS uptake of TRiFOCAL principles? - What would you say is working? Why? - What's not working, Why? <p>A CfE assumes high value of food resources and, extends value to action by designing out food waste.</p>

	<p>-In your opinion, what would indicate 'movement of HaFS towards' a CfE?</p>
<p>Innovation, Ethos & Sustainable Legacy</p>	<ul style="list-style-type: none"> - What innovations might help to sustain HaFS food waste action (information, tools, mechanisms)? - Who might be the primary influencers/ stakeholders/ actors for progressing this? (Please explain) - What would you say are the implications for policy and further action? - Any further thoughts?

Appendix D: Examples of the Academic Literature pertaining to this Study

Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Merritt (1998)	EM into SME Won't Go? Attitudes, Awareness and Practices in the London Borough of Croydon	<i>Business Strategy and the Environment</i>	Questionnaire Quantitative Study Survey involving SMEs	Sympathetic to the 'SME problem'. Argue that even with owner/ manager interest, there is still need for developing knowledge and capacity regarding environmentally friendly business.
Habbershon, Kaye & Williams (1999)	A Resource-based Framework for Assessing the Strategic Advantages of Family Firms	<i>Family Business Review</i>	Theoretical discourse Literature Review on family firm performance	Presented the Resource-Based Framework as a concrete theoretical basis for the nature of family business.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Vernon et al. (2003)	The 'Greening' of Tourism Micro-businesses: Outcomes of Focus Group Investigations in South East Cornwall'	<i>Business Strategy and the Environment</i>	5 Focus groups with 34 hoteliers representing 25 businesses	Argues against the neglect of micro-businesses regarding sustainable tourism. Policy oriented paper- towards removal of barriers preventing more micro-businesses coming on board (regarding environmental stewardship).
Spence, Jeurissen & Rutherford (2000).	Small business and the environment in the UK and the Netherlands: Toward stakeholder cooperation	<i>Business Ethics Quarterly,</i>	Stakeholder theory proposed	Dual nation study. Identified 'institutional theory' to explain why some SMEs get involved in CSR. Essentially an argument for SMEs being influenced by their surroundings and external pressures.
Spence & Lozano (2000)	Communicating about ethics with small firms: experiences from the UK and Spain.	<i>Journal of Business Ethics</i>	Mixed method – interviews, questionnaire and quantitative survey	Dual nation study - Expressing concern for application. Therefore, explored strategy for education, training and general communication with SMEs about ethics in business.

Perez-Sanchez, Barton & Bower (2003)	Implementing Environmental Management in SMEs	<i>Corporate Social Responsibility and Environmental Management,</i>	Instrumental, empirical focus	Designed strategy for implementing environmental management by SMEs. Argues that linking the 'survivability' of the business to environmental action is key. However, support for internal expertise, promoting long term planning and a 'culture of innovation' is also critical.
Spence & Rutherford (2003)	Small business and empirical perspectives in business ethics: Editorial	<i>Journal of Business Ethics</i>	Editorial	Focus on the small firm as a potential source of new thinking about business ethics. Call for more empirical research in this arena.
Spence and Schmidpeter (2003).	SMEs, Social Capital, and the Common Good	<i>Journal of Business Ethics</i>	Report on empirical research	Introduces international comparative dimension on the subject. Significant as a dual-nation study comparing the UK and Germany.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Spence, Schmidpeter & Habisch (2003)	Assessing Social Capital: Small and Medium Sized Enterprises in Germany and the U.K.	<i>Journal of Business Ethics</i>	Empirical pilot with qualitative focus	Dual nation study on social capital among SMEs in the UK and Germany ('The German 'Mittlestand'). Highlight opportunity to investigate social capital from the perspective of the owner/managers and also at a sectoral level. Thus, adding another 'layer' to acknowledging the heterogeneity of SMEs.
Castka et al. (2004)	How can SMEs effectively implement the CSR agenda? A UK case- study perspective	<i>Corporate Social Responsibility and Environmental Management</i>	Case Study and Action Research	In-depth focus on one SME in the UK
Worthington, Ram & Jones (2006)	Exploring Corporate Social Responsibility in the U.K. Asian Small Business	<i>Journal of Business Ethics</i>	Social Capital Theory -2003 Qualitative Survey of 32 enterprises in selected cities.	Highlighted the absence of ethnic minority enterprises in the academic discussion on SME social responsibility in the UK. Religious motives are central to demonstrating social responsibility. Argument for a 'mainstreaming' approach to the topic?

Jenkins (2006)	Small Business Champions for Corporate Social Responsibility	<i>Journal of Business Ethics</i>	24 businesses	Stakeholder theory may be applied to SME business owners' networking as a primary focal point for their business.
Moore & Spence (2006)	Editorial: Responsibility and Small Business	<i>Journal of Business Ethics</i>	Literature Review	Identifies missing gaps and disparate journal sources in the literature.
Lockett, Moon & Visser (2006)	Corporate Social Responsibility in Management Research: Focus, Nature, Salience and Sources of Influence'	<i>Journal of Management Studies</i>	Literature Review	Maintains that 'salience' and 'influence' actually determine the acceptance of CSR material in top journals and across respective journals. Identify four areas. Underscores the uniqueness of the environmental issue.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Gellynck, . & Kuhne, (2008).	Innovation and Collaboration in Traditional Food Chain networks.	<i>Journal on Chain and Network Science 2008; 8 92):121-129.</i>	Focus Groups and Interviews	Important commentary specifying the uniqueness of food businesses
Brunetto, & Farr-Wharton, (2007)	The Moderating Role of Trust in SME Owner/ Managers' Decision-Making about Collaboration.	<i>Journal of Small Business Management 45(3) pp.362-387.</i>	Case study methodology, 4 processes with both qualitative and quantitative methods	Trust is fundamental to SME owner managers pursuing collaborative networks of support. Therefore, propose the 'embryo-explorative' liaison as an inception stage <i>before</i> collaboration. However, the latter still defined in terms of B2B engagement
Jamali, Zanhour & Keshishian (2009)	Peculiar Strengths and Relational Attributes of SMEs in the Context of CSR	<i>Journal of Business Ethics</i>	Semi- Literature Review of Theories and Qualitative Study	Reinforced SME 'peculiarities' in relation to social responsibility. Although 'developing country' Lebanese study, potential application to similar Lebanese family SMEs in the UK. May be helpful contrast with 'Western centric' discourse.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights

Baden & Harwood (2009).	The effect of buyer pressure on suppliers in SMEs to demonstrate CSR practices: An added incentive or counter-productive?	<i>European Management Journal,</i>	Empirical Study about 103 UK owner/ managers	Supply chain drivers and buyer pressure can be a factor in helping owner/ managers to demonstrate CSR activities.
Jenkins (2009)	A “business opportunity” model of corporate social responsibility for small- and medium-sized enterprises	<i>Business Ethics: A European Journal</i>	Case Study of 24 Welsh companies	Used case studies of these firms to demonstrate how ‘Corporate Social Opportunity’ can be activated by businesses. Presents this approach as a type of ‘innovation’ to be embraced by SMEs.
Perrini & Spence (2009)	Practice and Politics: Ethics and Social Responsibility in SMEs in the European Union	<i>African Journal of Business Ethics</i>	Review of Literature and Policy	Propose EU perspective on sustainability as integral as it is inclusive of social economic and environmental dimensions Argue that sustainability may be more appropriate for SMEs than CSR as a working construct.
Fitzgerald et al. (2010)	Socially Responsible Processes of Small Family Business Owners: Exploratory Evidence form National Family Business Survey	<i>Journal of Small Business Management</i>	Sustainable Family Business Theory	Note and define community resilience and argue that community can also be a catalyst for responsible business- An interesting application in the context of business role in disaster mitigation and the potential of collaborative support for SMEs in the HaFSsector
Frank et al. (2010)	The Concept of ‘Faminess’: Literature review and systems theory-based reflections	<i>Journal of Family Business Strategy</i>	Conceptual Review	Identify modern systems theory involving ‘autopoiesis. Also overviews 4 research stands of faminess.
Vo (2011)	Corporate Social Responsibility and SMEs: a literature review and agenda for future research	<i>Problems and Perspectives in Management</i>	Literature Review	Includes micro-business in SME concerns and requests ‘particularization’ approach in promoting responsible business-based on scale, size and capacity.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights

Braun & Hadwiger (2011)	Knowledge Transfer from research to industry (SMEs)- An example from the food sector	<i>Food Science & Technology</i>	Discussion	Concern for more academic/ industry linkage involving SMEs 'largely underexploited' p.S91. Trust and terminology (language) -significant barriers to food SMEs pursuing collaboration and innovation by knowledge transfer. This is a stumbling block to a competitive food sub- sector
Howarth & Fredericks (2012)	Sustainable SME practice: A reflection on supply –chain environmental management intervention	<i>Management of Environmental Quality: An International Journal</i>	Conceptual review	Identify 'an internal SME dimension and sense-making process.
Wilson, Williams & Kemp (2012)	'An Evaluation of the Impact and Effectiveness of Environmental Legislation in Small and Medium-Sized Enterprises; Experiences from the UK'	<i>Business Strategy and the Environment</i>	Semi- Structured Interviews with 78 SME focal points	SMEs in the UK represent volume as a sector. As a result, they are strategic for demonstrating responsible business at a national level. Key point and rationale for why local support is strategic
Porter & Kramer (2011)	Creating Shared Value	<i>Harvard Business Review</i>	Conceptual discourse	Proposes Shared Value beyond CSR as a way of connecting the macro societal and economic systems. 'Value is defined as benefits relative to costs not just benefits alone.' P.2 How could this relate to supporting B2B business which includes the value of family SMEs?
Zhu, Yong & Lai (2011)	Environmental Supply Chain Cooperation and Its Effect on the Circular Economy	<i>Journal of Industrial Ecology</i>	Survey of over 300 owner managers in China	Environmental Supply Chain Cooperation (ESCC) focus on industry responsiveness to customer green values- opportunity for collaborative alliance on eco-design and other areas. With appropriate national policy support, CE could progress
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights

Brammer, Hojmosse & Marchant (2012)	Environmental Management in SMEs in the UK: Practices, Pressures and Perceived Benefits	<i>Business Strategy and the Environment</i>	Electronic online survey of 102 industrial sector companies	Significant heterogeneity in SME environmental practices. Implications for policy and support.
Kechiche & Soparnot (2012)	CSR within SMEs: Literature Review	<i>International Business Research</i>	Literature Review	Capitalism is 'under siege' – lack of commitment to long term, shared value creation. 'Shared Value focuses on identifying and expanding the connections between societal and economic progress' p. 2
Parry (2012)	Going Green: the Evolution of micro-business environmental practices	<i>Business Ethics: A European Review</i>	Case Study of 6 micro-businesses	Argues for distinction between 'Small' and 'Micro-Business' based on greater owner dominance in the latter.
Williams & Schaefer (2012)	Small and Medium-Sized Enterprises and Sustainability: Manager's Values and Engagement with Environmental and Climate Change Issues'	<i>Business Strategy and the Environment</i>	Social Constructionist approach. Qualitative Study of 9 in-depth interviews	East Anglia study - attention to actual practice of environmental stewardship by managers and motivation in response to climate change.
Baregheh, et al. (2012)	Food SMEs and Innovation Types	<i>British Food Journal</i>	221 online and face- to face questionnaires of owner managers in the UK	Base on Bessant's classification of types of innovation (2005), food sector innovation has 'received relatively limited attention' Yet, it is thriving. However, with greater emphasis on product innovation
Beschorner (2013)	Creating Shared Value: The one-trick Pony Approach	<i>Business Ethics Journal Review</i>	Conceptual discourse	Shared Value principles inadequate for 're-inventing capitalism'. Need for 're-embedding of businesses in society and firms engaging in a broader spectrum of social governance.' p.111

Colurcio, & Russospena (2013)	Collaborative innovation in Food SMEs: ... Collaborative Innovation—A Focus on Food SMES, chapter 28, in Food Industry, Intech	<i>INTECH (Chap. 28)</i>	Conceptual discourse and primary research using interviews	Application of network language to the food SME issues. Argument for innovation networks including food SMEs 'necessity rather than choice p.
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Baden & Harwood (2013)	Terminology Matters: A Critical Exploration of Corporate Social Responsibility Terms	<i>Journal of Business Ethics</i>	Literature Review involving word study and referencing post-modern ethics	Explore semiotics and bring compelling argument about connotation and limitations surrounding 'CSR'. Important at the SME level in terms of their environmental impact at community level. They argue against moral muteness' and for an inclusive term- proposing 'Ethical Footprint'.
Vázquez-Carrasco & López-Pérez (2013)	'Small and Medium-Sized enterprises and Corporate Social Responsibility: A systematic review of the literature'	<i>Quality Quantity: International Journal of Methodology</i>	Systematic Literature Review	Continue argument regarding 'idiosyncrasies' of the sector. Bemoan the 'low profile' of CSR in the top-three SME journals: -Journal of Small Business Management -Small Business Economics -International Small Business Journal
Van Gils et al. (2014)	Social Issues in the Family Enterprise	<i>Family Business Review</i>	Literature review of 35 articles	Re-establishing of principles of distinction contrasting family and 'non-family' business. Argues that non-economic motivations. . .appear particularly salient to family enterprises'
Spence (2014)	Small Business and Social Responsibility: expanding core CSR theory	<i>Business and Society</i>	Conceptual discourse	Attempts to enhance relevance of stakeholder theory and Carroll's CSR pyramid by applying feminist perspective- 'ethic of care'

Garcia-Garcia, G., Woolley, E., & Rahimifard, S. (2015)	A framework for a more efficient approach to food waste management	<i>International Journal of Food Engineering</i> , 1 (1), pp.65-72.	Conceptual	Provides global review. Emphasis on food waste definition, appropriate decision- making framework and management based on this option
Heshmati, A.	A review of the Circular Economy and its Implementation	<i>Sogang University and IZA</i>	Literature Review	Commentary on the CE concept in relation to national development strategy, with special emphasis on China
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Papargyropoulou et. al. (2016)	Conceptual framework for the study of food waste generation and prevention in the hospitality sector	<i>Waste Management</i> 49 pp. 326-336)	Ethnographic Case Study (Malaysian Hospitality Sector)	Case study about 5-star hotel restaurant. Interesting linkage between the 'biological flows of food provisioning and waste generation, with the social and cultural practices associated with food consumption. . .'. Proposed a framework for linking the two areas. (p. 335). Against past tendency to focus on either material or socio/cultural/economic and have'. . .fallen short of connecting the two.'
Pet. (2016)	Circular economy: a coevolutionary perspective on diversity	<i>SCHWERPUNK THEMA</i> <i>Springer-Verlag Berlin Heidelberg</i>	Conceptual discourse	Examines symbiosis between business actors and their customers. Argues that innovation could be the by-product of this continuous exchange, collaboration and mutual adaptation. Offers insight on systems based on insight from biology.
Galanakis, . et. al. (2016)	Food Use for Social Innovation by Optimizing Food Waste Recovery Strategies.	<i>Innovation Strategies in the Food Industry</i> <i>Elsevier Inc.</i>	Conceptual base towards improving business operations	Proposes a 'Universal Recovery Strategy' for recovery of commercial organic waste as an important industrial process
Galanakis, (2016).	Challenges and Opportunities in Innovation Strategies in the Food Industry	<i>Innovation Strategies in the Food Industry</i> <i>Elsevier Inc.</i>	Instructive/ manual oriented	Highlights special challenges of SMEs surrounding open innovation

Hosseininia, & Ramezani, (2016).	Factors Influencing Sustainable Entrepreneurship in Small and Medium-Sized Enterprises in Iran: A Case Study of Food Industry.	<i>Sustainability</i> . (8), 1010.	Mixed methods- both questionnaires and interviews of 130 participants and 12 owner-managers in Iran	Emphasises the social factor (staff demography, hiring & training and customer values etc.) and environmental factors are key determinants of responsible entrepreneurship in SME food sector
Author/ Source (Year)	Title	Journal/Book	Format/ Methodology	Key Insights
Rizos, V et.al. (2016)	Implementation of Circular Economy Business Models by Small and Medium-Sized Enterprises (SMEs): Barriers and Enablers	<i>Sustainability</i> 2016 (8)	Literature Review of Case studies	Very detailed overview of key issues affecting SME participation in CE. Findings confirm importance of multi-party input or at least local network support. Highlighted need for ‘. . . a local or regional network with other SMEs and <i>supporting multipliers</i> to enhance information sharing and awareness raising; and the benefits of having a “green” image and being recognised as a “green” supplier by customers.’ p.13.
Heikkilä, L. et.al (2016)	Elements Affecting Food Waste in the food service sector	<i>Waste Management</i> (2016) 56 446-453	Participatory Workshops	Emphasises the need for a holistic approach to dealing with food waste in a business context
Tatano et al. (2017)	Generation and collection of restaurant waste: Characterization and evaluation at a case study in Italy	<i>Waste Management</i> (2017) 61 pp. 423-442	Case Study using both parametric and qualitative data	In depth analysis and measurement of Italian restaurant waste
Rajeev et al. (2017)	Evolution of Sustainability in Supply Chain Management: A Literature Review	<i>Journal of Cleaner Production</i>	Thematic Analysis on 1068 articles (2000-2015)	Uses chronological approach (including key milestones) in defining sustainability, confirm that there are few studies addressing all aspects of the triple bottom line in particular, social dimension and social impact

Appendix E: List of Key Journal References

- *Academy of Management Review*
- British Food Journal
- Business Strategy and the Environment
- Business Ethics: A European Review
- Business and Society
- Cambridge Journal of Economics
- Corporate Social Responsibility and Environmental Management,
- Entrepreneurship, Theory and Practice
- Ecological Economics
- Family Business Review
- Food Science & Technology.
- Information Systems Research
- International Science Index, Economics and Management Engineering
- International Journal of Hospitality Management
- Journal of Agricultural and Environmental Ethics
- Journal of Small Business Management
- Journal of Business Ethics
- Journal of Cleaner Production
- Journal of Environmental Economics and Management
- Journal of Environment and Management
- Journal of Extension
- Journal of Industrial Engineering and Management
- Journal of Operation Research
- Public Management Review
- Quality & Quantity: International Journal of Methodology
- Qualitative Social Research
- Resources, Conservation and Recycling
- Sustainability
- Systems Research and Behavioral Science.
- International Journal of Food Engineering

- Systems Practice Action Research
- Waste Management

APPENDIX F: Summary of Empirical Work & Findings Using the Framework Method

PHASES 2017- 2019	METHOD	RATIONALE	KEY POINTS & SUMMARY OF FINDINGS	INCEPTION CODES	BROAD THEMES
PHASE 1 (2017) Ongoing interaction with literature	LITERATURE/ MATERIAL REVIEW	<p>-To get an overview of key concepts, <i>elements</i> operational strategy and configurations regarding the topic</p> <p>-To assess how cross-sector collaboration might enable food SMEs to adopt CfE principles addressing food waste.</p> <p>-Decided for staggered process because food waste was a 'live' topic, with evolving commentary</p> <p>-Additionally, approach would provide awareness of any new material, emphases (or omissions). Therefore, could also inform research methodology and development of empirical stages.</p>	<p>- Major Finding: Three (3) emerging groupings of literature, as academic, policy and NGO-related. Lack of confluence in academic literature across concepts related to this research topic.</p> <p>- HaFS subsector categorized into nine (9) enterprise groupings (Caterlyst, 2012 in WRAP, 2013). <i>NB: Not all HaFS are SMEs</i></p> <p>- A 'messy' topic, food SMEs seemingly lost in a 'sea' of <i>disjointed literature and conceptual complexity</i></p> <p>-Emphasis on food corporate waste action (not food SME counterparts) with community outreach/ collaboration as a big business strategy</p> <p>- Theoretical concepts of 'Collective Impact' and 'Food Citizenship'</p> <p>- Absence of any comprehensive philosophical radix or framework for promoting CfE, through collaborative support</p>	<p>a) Disjointed Plurality <u>Confluence</u></p> <p>b) Food SME/HaFS visibility <u>HaFS agency & innovation</u></p> <p>c) What Philosophy? <u>Holism</u></p> <p>c) What Philosophy? <u>Holism</u></p>	<p>i) TRANSDISCIPLINARY</p> <p>ii) THERE BUT NOT THERE</p> <p>iii) <i>HOLISM & COLLABORATION AS PROGRESSIVE FUNCTIONS OF HaFS REGENERATIVE BUSINESS</i></p>

<p>PHASES 1-2</p>	<p>PARTICIPANT OBSERVATION</p> <p>Including: 5 TRiFOCAL Business Working Group Meetings 4 Conferences (including 1 international conference) >10 Workshops & Seminars, -Volunteering at a food redistribution outlet</p>	<p>-To facilitate information gathering about the topic in real time, especially multi-stakeholder support involving food SMEs</p> <p>-Opportunity to network and strategize for semi-structured interviewing re: engaging HaFS that are SMEs in <i>circular food business</i></p> <p>To gain practical understanding of food re-distribution and where HaFS fitted in this circuitry</p>	<p>-Food waste is a 'hot topic' Observed predominantly, corporate (not SME) attendance at conferences and other fora related to the issue.</p> <p>- Some owner managers of food SMEs (including HaFS sub-sector) in attendance. Generally, food SMEs seem to respond to smaller events</p> <p>-Very publicised examples of food waste redistribution involving corporate/ consumer/ councils/ NGO collaboration</p> <p>Emerging interest across-sectors</p> <p>EHPs potential 'significant helpers in supporting HaFS action on food waste</p>	<p>b) Food SME/HaFS visibility <u>HaFS agency & innovation</u></p> <p>d) Messaging <u>Awareness Capture</u></p> <p>b) Food SME(HaFS)visibility <u>& innovation</u></p> <p>e) Multidisciplinary <u>Systemic Engagement & Exchange</u></p>	<p>ii) THERE BUT NOT THERE</p> <p>iv) CAMPAIGNING</p> <p>ii) 'THERE BUT NOT THERE'</p> <p>v) ORGANISATIONAL DESIGN</p>
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<p>PHASE 1 (2017- May 2018)</p>	<p>EARLY STAKEHOLDER MAPPING TOOL</p> <p>ONE (1) RICH PICTURE</p> <p>(An Observation of activities and documentary materials)</p>	<p>-To get an overview of collaborative action addressing food waste and promoting CE principles</p> <p>To find a cross- sector 'hub' addressing this and, to identify key stakeholders</p> <p>-To locate food SMEs in this activity</p>	<p>-Food waste; endemic, complex & affecting everybody</p> <p>-TRiFOCAL relevant as a research Study unit. TRiFOCAL features shared convening power (WRAP, LWARB & Groundwork). Other key UK intermediaries: CIEH, SRA & Food Ethic Council</p> <p>-WRAP's institutional profile and campaigns -a pivotal 'backbone' with lateral access to policymakers, corporate food giants and SMEs</p> <p>-Food SME focus (91 participating HaFS) of London FoodSave Project (2013-15) an important overlap with this Study and some aspects of the London TRiFOCAL Project.</p> <p>-Emerging diverse policy initiatives and ORGANISED national programming</p> <p>-Generally, younger peoples' participation within grassroot hubs</p> <p>-Corporates contributing to messaging about food waste and action (community partnership)</p> <p>- Some vibrant HaFS food redistribution already in operation, generally neighbourhood-based and 'under the national radar' (contrasts with growing public profile of big food businesses)</p> <p>-Food Citizenship</p>	<p>d) Messaging <u>Awareness Capture</u></p> <p>e) Multidisciplinary <u>Systemic Engagement & Exchange</u></p> <p>b) SME/HaFS visibility <u>HaFS agency & innovation</u></p> <p>e) Multidisciplinary <u>Systemic Engagement & Exchange</u></p> <p>f)'People Vibe' <u>Local Agency</u></p> <p>d) Messaging <u>Awareness Capture</u></p> <p>f) People Vibe <u>Local Agency</u></p>	<p>iv) CAMPAIGNING</p> <p>v) ORGANISATIONAL DESIGN</p> <p>ii) 'THERE BUT NOT THERE'</p> <p>v) ORGANISATIONAL DESIGN</p> <p>vi) BUSINESS SIZE INTERSECTING COMMUNITY</p> <p>iv) CAMPAIGNING</p> <p>vi) BUSINESS SIZE INTERSECTING COMMUNITY</p>
<p>PHASE 2 (October, 2018-</p>	<p>EIGHT (8) SEMI- STRUCTURED INTERVIEWS</p>	<p>To assess how multi-stakeholder collaboration might</p>	<p>-HaFS outreach demonstrating CfE business interest & innovations (e.g., food</p>	<p>f) People Vibe' <u>Local Agency</u></p>	<p>vi) BUSINESS SIZE INTERSECTING COMMUNITY</p>

June. 2019)		enable HaFS to adopt CfE principles To understand the complexity of helping HaFS that are SMEs shift to circular practice	waste redistribution & schools support) Process, process, process...including staff re-learning needs	g) 'Scale & Balancing Act' <u>Capacity</u>	vii) FLEXIBLE & NON-FORMAL PROCESS
	TWO (2) FOCUS GROUPS Revised interview questions	To assess how multi-stakeholder collaboration might enable HaFS to adopt CfE principles To understand the complexity of helping HaFS that are SMEs shift to circular practice To outline a relational circuitry for sustaining food SME movement towards a CfE _Opportunity to meet with business owners, council reps. and other participants	Flexibility and innovation in progress 'jeitinho', (Häner, 2011) Issues of business size, time, trust and need for 'handholding' 'Your Business is Food. . .' (YBIF), food waste is everyone's business – HaFS owner/managers and staff participate in households too	g) 'Scale & Balancing Act' <u>Capacity</u> h) <u>Integrated Reconnections</u>	vii) FLEXIBLE & NON-FORMAL PROCESS viii WHO ARE THE PEOPLE IN YOUR NEIGHBOURHOOD?