

Understanding the mechanisms of entrepreneurial ecosystems:

An examination of place, processes, people, and perspectives

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ABSTRACT

In recent decades, there has been an increased interest in entrepreneurial ecosystems (EEs) from policymakers and academics. Policymakers are attracted to the promises of entrepreneurial growth and regional economic development that have become implicitly and explicitly attached to the phenomenon. However, it is not clear from the existing literature what the mechanisms are that ensure that some EEs thrive while others do not.

Some of the foundational academic research in this field concerned itself with identifying the institutional elements of 'successful' EEs, i.e., ones which have produced outputs indicative of a significant presence of high growth entrepreneurship. More recently, there has been a move towards increasingly explanatory research, with an emphasis on clarifying the spatial dimensions of an EE and a focus on understanding the processes within and the mechanisms of EEs. It is within this niche of EE development where the present research project aims to contribute to the academic discourse.

Bristol, UK, was selected as a case study for this project, and the fieldwork was conducted in 2019. Qualitative methods were employed to obtain a nuanced appreciation of how various entrepreneurs and non-entrepreneur stakeholders interact with, perceive, and understand the EE. A thematic analysis of the empirical data was undertaken to explore three key themes: spatial dimensions of EEs; the people and processes within an EE; and entrepreneurs' experiences and perceptions of the EE.

The findings provide new insights into the mechanisms of EEs. The contributions to knowledge are as follows: the geography and boundaries of an EE are determined by relational ties; the ongoing development of an EE relies on a particular set of processes and activities (termed 'Ecosystem Development Work') and is facilitated by key individuals (termed 'ecosystem enablers'); and entrepreneurs' experiences and perceptions of the EE are dependent on the stage of their business and their entrepreneurial background. This research has potential implications for policy and practice.

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

app Software application (for computer or mobile phone)

BAME BLACK AND MINORITY ETHNIC

BEIS DEPARTMENT FOR BUSINESS ENERGY AND INDUSTRIAL STRATEGY

BSWN BLACK SOUTH WEST NETWORK

DCMS DEPARTMENT FOR CULTURE MEDIA AND SPORT

EDW ECOSYSTEM DEVELOPMENT WORK

ERDF EUROPEAN REGIONAL DEVELOPMENT FUND
ESIF EUROPEAN STRUCTURAL INVESTMENT FUND

EU EUROPEAN UNION

HNWI HIGH NET WORTH INDIVIDUAL
LEP LOCAL ENTERPRISE PARTNERSHIP
LIS LOCAL INDUSTRIAL STRATEGY
MVP MINIMUM VIABLE PRODUCT
ONS OFFICE FOR NATIONAL STATISTICS

OECD ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

R&D RESEARCH AND DEVELOPMENT
TBBN THE BRISTOL AND BATH NETWORK
UWE UNIVERSITY OF THE WEST OF ENGLAND

VC VENTURE CAPITAL

WECA WEST OF ENGLAND COMBINED AUTHORITY

WEF WORLD ECONOMIC FORUM

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DECLARATION

I, Laura IH Bennett, confirm that the Thesis submitted for the degree of Doctor of Philosophy is the result of my own research and is my own work.

I am aware of the University's Guidance on the Use of Unfair Means.

This work has not previously been presented for an award at this, or any other, university.

CHAPTER 1. Introduction

1.1 Theoretical and conceptual background to the research

Over the last 15 years, the term 'entrepreneurial ecosystem' has appeared with increasing frequency in the economic development grey literature, in business press, in popular literature, and in national and international reports. An entrepreneurial ecosystem has come to be associated with a broad set of institutional elements that play a role in creating a supportive environment in which an entrepreneur can start and scale a business. The terms 'entrepreneurial ecosystem' and 'startup ecosystem' have garnered ever-increasing interest, with Google searches for these topics continuously rising since 2007 (Spigel, Kitagawa and Mason, 2020). Interest shows no sign of abating, with Figure 1 showing the steady increase in searches for the term 'entrepreneurial ecosystem from December 2007 to December 2022.

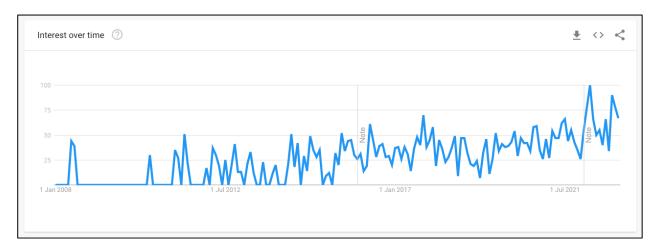


Figure 1: Number of Google searches for 'entrepreneurial ecosystem' from 2007 to 2022.

Source: Google Trends.¹

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¹ Accessed 3rd January 2023.

Amongst economic development professionals, the phrase 'entrepreneurial ecosystem' has become a largely recognised shorthand to refer to the conditions that support high-growth entrepreneurship, and there is a positive correlation between the presence of an entrepreneurial ecosystem and economic growth (Acs *et al.*, 2018). Every year, a plethora of reports are published recommending that policymakers build, support, or better resource their city or region's entrepreneurial ecosystem (see for instance: ScaleUp Institute, 2021; Endeavour Insight, 2022).

Parallel to this – or as Spigel (2018) argues, as a response to this – academic research in this area has also increased. A large and growing body of literature has considered the phenomenon of entrepreneurial ecosystems (see for instance: Neck *et al.*, 2004; Isenberg, 2011; Mason and Brown, 2014; Brown and Mason, 2017; Stam and Spigel, 2017; Malecki, 2018; Spigel and Harrison, 2018; Theodoraki, 2019; Spigel, Kitagawa and Mason, 2020; Stam and van de Ven, 2021). In their systematic literature review, Alvedalen and Boschma (2017) show that the number of publications on this subject rose from just 10 in 2009 to over 70 in 2014. In the years following 2017, there was significant expansion in publications on entrepreneurial ecosystems (Theodoraki, Dana and Caputo, 2022). This can be seen in Figure 2 on the following page, which shows the notable increase in the number of documents that refer to an 'entrepreneurial ecosystem' from 1 publication in 2006 to 337 publications in 2022.²

² The parameters of the search in Scopus were as follows: the term 'entrepreneurial ecosystem' within the Title, Abstract, and Key Words, within the date range of 2006 to 2022. The search was limited to the following three subject areas: Business, Management and Accounting; Economics, Econometrics and Finance; and Social Sciences.

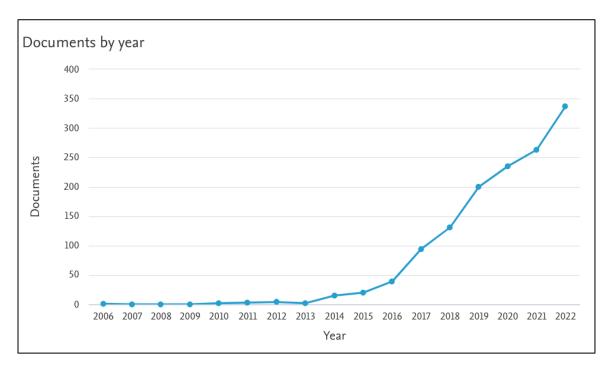


Figure 2: Number of publications that refer to 'entrepreneurial ecosystem' from 2006 to 2022.

Source: Scopus.³

Although the lineage of the literature is predominantly in the disciplines of economic geography and management (Acs *et al.*, 2017), new approaches from different disciplines make it an exciting and dynamic field to explore. Some recent examples of inter-disciplinary research in this area can be found in articles which consider entrepreneurial ecosystems from a spatial perspective (Schäfer, 2021); from a sociology-of-place perspective (Muñoz *et al.*, 2020); with a gendered perspective (Brush *et al.*, 2019); and from the perspective of developing countries with weak institutions (Belitski, Grigore and Bratu, 2021).

A driving motivation behind this increase in research is to bring empirical and theoretical robustness to the entrepreneurial ecosystems concept (Kuratko and Hudson, 2017; Stam, 2018; Wurth, Stam and Spigel, 2021). Despite the popularity of the entrepreneurial ecosystems

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³ Accessed 3rd January 2023.

phenomenon, an agreed definition remains somewhat elusive (Stam, 2015; Malecki, 2018). That being said, in her bibliometric analysis and systemic literature review of the field, Theodoraki (2022) establishes that the two most highly cited papers on entrepreneurial ecosystems are Stam (2015) and Spigel (2017), and their clear and compelling definitions of the concept form a cornerstone upon which subsequent research has been built. Stam (2015, p. 1765) defines an entrepreneurial ecosystem as, "a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship." For Spigel (2017, p. 50), entrepreneurial ecosystems are "combinations of social, political, economic, and cultural elements within a region that support the development and growth of innovative startups and encourage nascent entrepreneurs and other actors to take the risks of starting, funding, and otherwise assisting high-risk ventures." There is an intuitive appeal in these definitions, which goes some way towards explaining the interest in the phenomenon from policymakers.

Alongside Stam (2015) and Spigel (2017), much of the initial research into defining the concept focussed on identifying the institutional elements that comprise an entrepreneurial ecosystem (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Mason and Brown, 2014; Theodoraki, Messeghem and Rice, 2018). North (1991, p. 97) describes institutions as "the humanly devised constraints that structure political, economic and social interaction", separating them into two categories: formal rules (laws and rights) and informal (cultural norms and codes of conduct). The term 'institutional elements' used within the entrepreneurial ecosystems literature incorporates the formal institutions such as universities, the public sector, and business support infrastructure (incubators and accelerators) as well as informal institutions such as an entrepreneurial culture, supportive government policy, and networks.

Within the extant literature, these institutional elements are considered to be the building blocks of entrepreneurial ecosystems.

Spigel (2022) refers to the first wave of research in this area as that which identified the institutional elements of an entrepreneurial ecosystem. This foundational research sits alongside related theoretical research on topics such as the appropriate metrics for analysis (*Entrepreneurial Ecosystem Diagnostic Toolkit*, 2013; Stangler and Bell-Masterson, 2015), and the geographic scale and scope of an entrepreneurial ecosystem (Cohen, 2006; Mason and Brown, 2014; Stam, 2015). The direction of travel for research in this field is to build on this first wave, exemplified by a move towards increasingly explanatory research which aims to uncover the processes within entrepreneurial ecosystems (Brown and Mason, 2017; Roundy, Bradshaw and Brockman, 2018). This type of research is epitomised within the literature as having a focus on the processes within and longevity of entrepreneurial ecosystems (Roundy and Fayard, 2018; Spigel, 2020). In parallel, there is increasing interest in the spatial dimensions of an entrepreneurial ecosystem (Andrews *et al.*, 2022), and an acknowledgement that further research in relation to boundaries and scale is required (Schäfer, 2021).

Building on the 'what' of an entrepreneurial ecosystem (its institutional elements) and moving to explore the 'how' (the processes and mechanisms) and the 'where' (boundaries) is necessary in order to bring explanatory clarity to our existing knowledge about the concept, as well as to illuminate how an entrepreneurial ecosystem works in practice through empirical fieldwork conducted in different contexts. Moreover, there are implications for policy and practice that come when we are able to shift our perspective on the spatial dimensions of an entrepreneurial

ecosystem, as well as appreciate the people and processes who contribute to its development. It is within this explanatory context that this thesis is situated.

This research project is important and timely because it provides a new perspective on the geography of an entrepreneurial ecosystem and builds on our existing knowledge of the institutional elements in order to uncover the people and processes that contribute to entrepreneurial ecosystem development. The 'development' of an entrepreneurial ecosystem in this thesis refers to whether it functions effectively, i.e., if it is well-resourced, and if the networks within it are strong thus enabling entrepreneurs to easily access those resources.

These two defining characteristics of a well-functioning entrepreneurial ecosystem come from Spigel and Harrison's (2018) schematic of ecosystem types, as depicted in Figure 3.

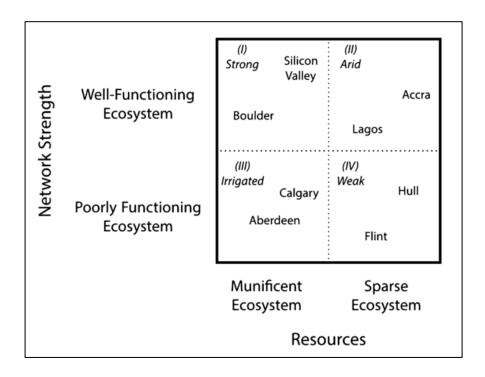


Figure 3: A schematic of types of entrepreneurial ecosystems. Source: Spigel and Harrison, 2018, p. 163.

This thesis seeks to explain *how* an entrepreneurial ecosystem functions, and in doing so, it responds to the research aim and corresponding research questions that are set out in the following sub-section. The driving motivation to conduct this research originated in the researcher's practical experience of working in entrepreneurial ecosystems, and her observation of a disconnect between the theoretical portrayal of the concept and its real-life application. A case study methodology was deemed to be most appropriate for this study, and the city of Bristol, UK, and its environs was chosen as the site in which to conduct the fieldwork and carry out qualitative interviews. The ambition underpinning this research project is that the insights garnered through the empirical fieldwork and subsequent data analysis can contribute towards deepening our understanding of the geography of and mechanisms within entrepreneurial ecosystems. It is hoped that this in turn opens up avenues for future research on topics such as power and governance within an entrepreneurial ecosystem; how the identified mechanisms are manifested in different contexts; and investigating how an entrepreneurial ecosystem responds to exogenous shocks over a longer period of time.

Research aim and questions

The overarching aim of this research is **to understand the mechanisms of an entrepreneurial ecosystem**. Wurth *et al.* (2021) use the phrase 'causal mechanisms' to refer to the processes and activities which drive the development of an entrepreneurial ecosystem, and how institutional elements lead to (or cause) related outputs and outcomes. While some of the findings of this research project do imply causation, the overall focus is on the *mechanisms*⁴ of

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⁴ The Oxford English Dictionary defines 'mechanism' as: "A system of mutually adapted parts working together; the machinery (lit. or fig.) of some effect."

the entrepreneurial ecosystem, i.e., how it is developed to be well-functioning through the coordination of its component parts. Mechanisms, understood in this figurative way, is used in this thesis to refer holistically to the spatialities, perspectives, relationships, activities, processes⁵, and people which individually and collectively play a role in the ongoing development of the entrepreneurial ecosystem.

There are three specific areas related to mechanisms which remain under-explored in the literature, and it is here that this thesis aims to contribute to knowledge. First, an entrepreneurial ecosystem is understood to be a place-based concept rooted in a regional geography (Cohen, 2006; Mason and Brown, 2014; Stam, 2015; Mack and Mayer, 2016; Spigel, 2017; Malecki, 2018; Wurth, Stam and Spigel, 2021), but the spatial dimensions of the concept are under-theorised (Schäfer, 2021). Specifically, the spatial boundaries of an entrepreneurial ecosystem remain ambiguous (Wurth, Stam and Spigel, 2021). Second, whilst research is beginning to uncover some of the activities which make entrepreneurial ecosystems function (Motoyama and Knowlton, 2017; Spigel and Harrison, 2018; Spigel, 2020), the literature is unclear about which processes are needed (Brown and Mawson, 2019; Spigel, 2022) and, significantly, has not sufficiently addressed the question of who drives these activities and processes. And finally, although the entrepreneur is centred in the entrepreneurial ecosystem (Isenberg, 2010; Feld, 2012), there is a lack of research in this field that focusses explicitly on their experiences and perspectives.

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⁵ The Oxford English Dictionary defines 'process' as: "A series of actions or steps taken in order to achieve a particular end." Colloquially, the two nouns 'mechanism' and 'process' are often used interchangeably. However, it is important to distinguish between the two: in this thesis, mechanism refers to a 'system of parts' as per the definition provided in the preceding footnote, and process refers to 'a set of actions that lead to a particular outcome'.

To this end, this thesis responds to the following three research questions:

RQ1: What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?

RQ2: What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?

RQ3: How do entrepreneurs experience and perceive the entrepreneurial ecosystem?

The following chapters respond to these research questions. Together, the insights obtained through these pages contribute to achieving the overarching aim of the thesis, which is to understand the mechanisms of the entrepreneurial ecosystem.

1.2 Empirical focus of the thesis

There is a balance to be struck between advancing a holistic theorisation of the concept (Wurth, Stam and Spigel, 2021) and encouraging more empirical fieldwork which can provide the necessary "granulated understanding" of entrepreneurial ecosystems in place-specific contexts (Spigel, Kitagawa and Mason, 2020, p. 491). As outlined above, the aim of this thesis is to understand the mechanisms, without necessarily laying claim to causation. This necessitates both a holistic consideration of the concept as we understand it theoretically, and a granular indepth empirical look at a place-specific entrepreneurial ecosystem. In taking this approach, this thesis builds on a solid foundation of existing literature that identifies the institutional elements of an entrepreneurial ecosystem (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Stam, 2015; Brown and Mason, 2017; Spigel, 2017) and contributes to a deeper understanding of the processes and people involved in its development. As defined earlier in

this chapter, 'entrepreneurial ecosystem development' relates to the extent to which an entrepreneurial ecosystem functions effectively, defined by it having a plenitude of resources within a geographic area that also benefits from strong networks (Spigel and Harrison, 2018).

The impetus for this research project originates in the researcher's own professional experience of working with entrepreneurs and in entrepreneurial ecosystem development roles, coupled with a long-standing interest in economic development. In line with the researcher's constructivist ontology and interpretative epistemology, a qualitative methodology was employed, which is outlined in further depth in the methodology (Chapter 4). Qualitative research methods were established to be particularly suitable for this research project, as they allow for a "nuanced understanding" of the interactions which occur within an entrepreneurial ecosystem (Spigel, 2017, p. 57). To fully respond to the research questions, it was important to examine the socially-constructed nature of an entrepreneurial ecosystem through an interpretation of people's experiences, accounts, and actions (Mason, 2018).

Given the aim of this research is to understand the mechanisms of an entrepreneurial ecosystem, it was necessary to conduct the fieldwork in a place where an entrepreneurial ecosystem exists, where it would be possible to observe the daily practices and activities, and where access to the entrepreneurial community could be gained in order to conduct interviews with entrepreneurs and non-entrepreneur stakeholders. The rationale for choosing a specific case study builds on a solid tradition of case study research within the entrepreneurial ecosystems field, for instance Boulder, Colorado (Neck *et al.*, 2004; Feld, 2012), Waterloo and Calgary in Canada (Spigel, 2017), and St Louis, Missouri (Motoyama, Watkins and Knowlton,

2014). The extant research has, to date, identified the institutional elements of an entrepreneurial ecosystem (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Stam, 2015; Brown and Mason, 2017; Spigel, 2017). This research project aims to build on this and extend our understanding of how those elements interconnect and coalesce within a specified geographic region.

The empirical fieldwork upon which this research is based was conducted in Bristol in 2019. As one of the UK's Core Cities⁶, Bristol has a high prevalence of entrepreneurship, with 50.3 business startups per 10,000 population in 2020.⁷ The city also regularly comes at the top of lists identifying the best place in the UK to start a business.⁸ The wider South West region has the highest five-year business survival rate from 2012 to 2017 (Office for National Statistics, 2021). Relevant grey literature and national reports recognise Bristol as a place where the entrepreneurial ecosystem is well resourced and well networked (*Annual Scaleup Review 2018*, 2018; Tech Nation, 2018). From a purely methodological point of view, Bristol has a 'rich mix' (Marshall and Rossman, 2006) of people, programmes, processes, interactions, and institutions that are relevant for a study of the entrepreneurial ecosystem. This, combined with access to gatekeepers, indicated that Bristol would make for an interesting and relevant case study, where the researcher would be able to immerse herself in the context, meet relevant

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⁶ The UK Core Cities are a self-defined group of 11 cities (Belfast, Birmingham, Bristol, Cardiff, Glasgow, Leeds, Liverpool, Manchester, Newcastle, Nottingham, and Sheffield) who work together to "promote the role of cities in creating a stronger, fairer economy and society." Together, the Core Cities account for 26% of UK economic output. Source: https://corecities.com/. Accessed 20 September 2022.

⁷ This is according to the Centre for Cities factsheet about Bristol: https://www.centreforcities.org/city/bristol/. Accessed 26 October 2022.

⁸ See for instance: https://www.business-live.co.uk/enterprise/startups/bristol-best-uk-city-start-18434763 and https://startupsmagazine.co.uk/article-best-locations-startups-uk-and-why. Accessed 26 October 2022.

entrepreneurs and non-entrepreneur stakeholders easily, and have the opportunity to gain a deep insight into the entrepreneurial ecosystem. Aside from one report on the 'Bristol-Bath Innovation Cluster' published in 2018 by SQW⁹, this is the first academic research project in the field of entrepreneurial ecosystems that uses Bristol as a case study (to the knowledge of the author).

1.3 Contributions to knowledge

Fundamentally, this research provides a new perspective on how we define and locate the boundaries of an entrepreneurial ecosystem; identifies and defines the processes (Ecosystem Development Work) and people (ecosystem enablers) that make an entrepreneurial ecosystem function effectively; and adds nuance to how entrepreneurs are defined within an entrepreneurial ecosystem thus illuminating and reframing how we understand their experiences and perspectives. These theoretical contributions are drawn out more fully throughout the chapters and are synthesised in the conclusion to the thesis. The following paragraphs provide a succinct outline of the contributions to knowledge that are made through a process of responding to the three research questions presented on page 28 of this chapter.

First, a conceptual model is introduced which provides a new lens through which to analyse an entrepreneurial ecosystem. Reimagining how the entrepreneurial ecosystem is theoretically constructed is not only important when reflecting on the concept as an 'abstracted idea'

⁹ Source: https://www.sqw.co.uk/expertise/spatial-local-economic-development/bristol-bath-innovation-cluster. Accessed 20 December 2018.

(Wurth, Stam and Spigel, 2021), but it also offers a reframing of how to approach the research questions set out at the beginning of this chapter. Whether engaging with this topic as an academic or a practitioner, the dominant heuristic tools for analysing an entrepreneurial ecosystem are based on institution-led frameworks of entrepreneurial ecosystem elements, such as the ones created by Isenberg (2011), Spigel (2017), or Stam (2017). Over the course of conducting the fieldwork and analysing the data, it became apparent that these tools had certain limitations which made them inappropriate for a fuller investigation of the research questions. The limitations of the existing tools relate to how geography is accounted for (in particular where the boundaries of the entrepreneurial ecosystem lie); how the various institutional elements are connected within an entrepreneurial ecosystem; and how to encompass the entrepreneur perspective and experience. These three limitations are described in more depth in Chapter 3.

To address the limitations in the current tools, Chapter 3 goes on to present a reimagined conceptual model of an entrepreneurial ecosystem which then unlocks the potential for a more thorough analysis and explanation of the empirical data. The proposed conceptual model provides a tool which allows for a more rigorous examination and exploration of the geography of an entrepreneurial ecosystem. The conceptual model also enables an analysis of the processes and people within an entrepreneurial ecosystem, thus building on the first wave of entrepreneurial ecosystem research (Spigel, 2022) which identified institutional elements. Finally, the conceptual model provides a mechanism through which to depict and explain the entrepreneur experiences and perspectives on the entrepreneurial ecosystem in which they are embedded. The conceptual model proposed is both general and specific: it depicts the

irrefutable geographical boundaries of an entrepreneurial ecosystem, whilst also allowing for individual permutations of those boundaries based on individual entrepreneurs' experiences and relationships. Furthermore, it shows the many varied possible ways in which institutional elements connect within an entrepreneurial ecosystem which enables a generalised understanding of how institutions coalesce, as well as allowing for a more refined description of the specific connections between institutions within a particular entrepreneurial ecosystem. By reframing the theoretical and conceptual lens of the entrepreneurial ecosystem, it becomes possible to more fully respond to RQ1, RQ2, and RQ3.

Moving on to the second contribution made in this thesis, it is established that the boundaries of an entrepreneurial ecosystem can be interpreted based on the relational ties between entrepreneurs and institutions, and the differing perceptions about where entrepreneurial activity occurs within a geographic area. This contribution responds to RQ1. A stylised fact that is drawn out of a close reading of the literature is that an entrepreneurial ecosystem is defined by and dependent on its geographical context (Cohen, 2006; Mason and Brown, 2014; Stam, 2015). There is some debate over whether the most appropriate scale for analysis is local, regional, or national (Malecki, 2018), although the regional approach is the one favoured by the key researchers in this field (Isenberg, 2011; Mason and Brown, 2014; Stam and Spigel, 2017). Even if we were to uncritically accept that, theoretically, an entrepreneurial ecosystem is best analysed at the scale of the region, we are then confronted with the difficulty of establishing the regional geographic boundaries of a specific entrepreneurial ecosystem within an empirical context.

What emerges from an analysis of the data is that the geographic boundaries of the Bristol entrepreneurial ecosystem are contested. Views differ between the 'official' boundaries as portrayed by policymakers, and the boundaries that are imagined and perceived by stakeholders and entrepreneurs. Despite this, it is apparent that entrepreneurs and stakeholders alike have clear views on what is 'inside' the entrepreneurial ecosystem, and what is 'outside'. These views of inside or outside are based not only on the geographic location of particular institutional elements, but also on the relational ties that an individual might have to a particular institution. In essence, an entrepreneur or stakeholder may perceive that an institution located inside the geographical boundaries of the entrepreneurial ecosystem is not actually 'part of' the entrepreneurial ecosystem because the relational ties are weak or nonexistent. In contrast, an entrepreneur or stakeholder may have very strong ties to an institutional element that is located outside the geographical boundaries of the entrepreneurial ecosystem. It is argued therefore, that the boundaries of an entrepreneurial ecosystem are defined as much by relational ties as they are by its geography. Appreciating the different ways that boundaries can be interpreted and drawn is an important first step in unlocking our understanding of the mechanisms of an entrepreneurial ecosystem, because it sets the parameters for further investigation into entrepreneurship occurring within a specific context and place, i.e., which institutions should be considered, and which people are significant to the entrepreneurial ecosystem.

The third contribution to knowledge is that the processes and people that make an entrepreneurial ecosystem function are identified and explained, thus responding to RQ2. The processes comprise four streams of activity that are brought together under the umbrella of

'Ecosystem Development Work' (EDW), which is a new term devised by the researcher. These four streams of activity are: making introductions and signposting entrepreneurs; facilitating networks and creating communities; easing information flows between institutions; and constructing the narrative of the entrepreneurial ecosystem. The existing literature makes it clear that it is important for institutional elements to coalesce to produce the conditions for entrepreneurship to occur, but does not explain how that happens (Brown and Mawson, 2019). Defining EDW not only responds to this gap, but also demonstrates the variety of other activities that are important in the functioning of an entrepreneurial ecosystem. The people who do EDW are defined as ecosystem enablers, which, similarly to EDW, is a new term coined by the researcher. This brings precision to their role above and beyond that of previously identified concepts such as 'dealmakers' or 'bridging assets' (Feldman and Zoller, 2012; Mason and Brown, 2014), and more fully integrates them as non-entrepreneur stakeholders within the entrepreneurial ecosystem concept and body of literature. It is argued that both EDW and ecosystem enablers are 'invisible' to entrepreneurs and policymakers, despite their importance in ensuring that the entrepreneurial ecosystem functions well. Together, the defining of EDW and the identification of ecosystem enablers, enrich our knowledge about the mechanisms of entrepreneurial ecosystems.

The fourth contribution to knowledge relates to how we define an entrepreneur within an entrepreneurial ecosystem. The voice of the entrepreneur is brought to the fore in order to understand their experiences and perspectives on the entrepreneurial ecosystem, thereby responding to RQ3. The existing literature and institution-led frameworks centre the entrepreneur within the entrepreneurial ecosystem (Alvedalen and Boschma, 2017; Brown,

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Mawson and Mason, 2017; Stam and Spigel, 2017) but the focus is on the institutional support provided, and not on exploring how that support is received by entrepreneurs. By foregrounding the voices of entrepreneurs, it becomes apparent that there are commonalities in the experiences and perspectives of early-stage entrepreneurs, and similarly in those of later-stage entrepreneurs. Moreover, the founders of startups and the founders of scaleups also interact with the institutional elements of the entrepreneurial ecosystem in very different ways. By unpacking the term 'entrepreneur' in this way, it becomes possible to appreciate the nuances in how an entrepreneur experiences and perceives the entrepreneurial ecosystem. It is demonstrated that entrepreneurs' perspectives on the entrepreneurial ecosystem are informed by their experiences, and that those experiences are informed by the stage of business and the professional background of the entrepreneur. Relatedly, this approach shifts the dominant view of an entrepreneur passively receiving support from the institutional elements to one where an entrepreneur is active in shaping the entrepreneurial ecosystem.

Alongside these theoretical contributions to knowledge, there are practical implications that can be drawn from the research. These are outlined here in brief and given a more detailed treatment in the conclusion to the thesis (Chapter 8). By recognising that entrepreneurs at different stages require different types of support, and in particular that this support might lie outside the geographic boundaries of the entrepreneurial ecosystem, it is hoped that practitioners will focus on building relationships both inside and outside the geographic boundaries of the entrepreneurial ecosystem that will ultimately benefit entrepreneurs. By defining Ecosystem Development Work and identifying ecosystem enablers, it is hoped that policymakers and practitioners can advocate for targeted support and long-term funding that

enables them to develop the entrepreneurial ecosystem as a whole. And finally, with an awareness of who feels excluded from the entrepreneurial ecosystem and why, it is hoped that programmes and policies can be designed that remove those barriers and make it possible for more people to become entrepreneurs.

1.4 Structure of the thesis

The thesis is comprised of eight chapters and is structured as follows. The next chapter, Chapter 2, provides a review of the literature about entrepreneurial ecosystems. This chapter thoroughly explores the entrepreneurial ecosystems phenomenon, from its emergence as a concept and its theoretical lineages, through to how it is currently defined and described. Current definitions and expositions of entrepreneurial ecosystems are interrogated to show that we lack an in-depth understanding of the mechanisms of how entrepreneurial ecosystems work. This chapter outlines the dominant understanding of an entrepreneurial ecosystem as a geographic concept comprised of institutions that coalesce to produce a supportive environment for entrepreneurs. This conceptualisation of an entrepreneurial ecosystem reveals a number of important issues that are still not fully explored. These unresolved issues are as follows: how an entrepreneurial ecosystem is understood spatially; what the mechanisms are (processes and people) that help to make an entrepreneurial ecosystem function; and how we can accommodate the plurality of entrepreneur perspectives and experiences. It is shown how this critical analysis of the literature leads to the research questions that will be addressed throughout the remainder of the thesis.

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Chapter 3 introduces a conceptual model for understanding and examining an entrepreneurial ecosystem. The two dominant ways in which an entrepreneurial ecosystem is conceptualised are presented: as a framework of institutional elements, and as a schematic diagram. It is argued that both approaches have certain limitations in how we can fully envisage the entrepreneurial ecosystem in a more holistic manner. The proposed conceptual model shows that an entrepreneurial ecosystem is comprised of three layers, where the inner layer represents the entrepreneur, the middle layer represents the institutions that are geographically proximate, and the outer layer represents institutions which lie outside of the geographic boundaries of the entrepreneurial ecosystem. This reimagined entrepreneurial ecosystem provides a theoretical basis for the following empirical chapters.

Chapter 4 presents the methodology adopted and methods employed in the research. The researcher's ontology and epistemology are outlined. This chapter describes the researcher's position as occupying both insider and outsider status vis-à-vis her 'membership' of the community under investigation. Ethical considerations and the researcher's reflexive approach to conducting the research are presented. The rationale for conducting qualitative research is described. The methods for this research project involved conducting a case study, taking an ethnographic approach, and conducting semi-structured interviews. The practicalities of gathering data are presented, including a rationale for selecting Bristol as the site of research. This chapter also describes how a thematic approach was taken to data analysis.

Chapter 5 is titled "Exploring the geographic and relational boundaries of the entrepreneurial ecosystem" and it is the first of three empirical chapters. Chapter 5 responds to RQ1: "What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?". This

chapter responds to the gaps in the literature that are identified around the place and space of entrepreneurial ecosystems (Schäfer, 2021), and focusses on the geographic and relational boundaries of the Bristol entrepreneurial ecosystem. Tensions are uncovered between the 'official' view of the geography of the Bristol entrepreneurial ecosystem and the view from practitioners and other non-entrepreneur stakeholders. Drawing upon the notions of insideness and outsideness (Relph, 1976), this chapter explores the perspectives of entrepreneurs to show that there is a relational boundary as well as a geographic one. The experiences and perspectives of those who feel excluded from the entrepreneurial ecosystem are also explored.

Chapter 6 is the second empirical chapter and is titled "Introducing 'Ecosystem Development Work' and defining the role of ecosystem enablers". Chapter 6 responds to RQ2: "What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?". The gap in the literature that this chapter responds to is the lack of explanation of how the institutional elements of an entrepreneurial ecosystem coalesce (Brown and Mawson, 2019). This chapter introduces and defines 'Ecosystem Development Work' (EDW) as the body of practices and processes which enable the Bristol entrepreneurial ecosystem to function. The four strands of EDW activity described in this chapter are: making introductions and signposting entrepreneurs; facilitating networks and creating communities; easing information flows between institutions; and constructing the narrative of the entrepreneurial ecosystem. This chapter goes on to describe the individuals who undertake this work as ecosystem enablers, building on previous concepts such as 'dealmakers' and 'bridging assets' (Feldman and Zoller, 2012; Mason and Brown, 2014). These individuals hold a role which is sometimes formalised and paid, and other times is voluntary

and unpaid. It is argued that ecosystem enablers share similar motivations and attributes. The case is made that EDW and the role of ecosystem enablers are 'invisible' to entrepreneurs, and to a lesser extent, to policymakers. Despite this invisibility, it is argued in this chapter that both are essential to the ongoing functioning of an entrepreneurial ecosystem.

Chapter 7 is titled "An analysis of how entrepreneurs experience and perceive the Bristol entrepreneurial ecosystem". This is the third and final empirical chapter of the thesis. Chapter 7 responds to RQ3: "How do entrepreneurs experience and perceive the entrepreneurial ecosystem?". The gaps in the literature that are addressed here relate to the visibility and positioning of entrepreneurs within the entrepreneurial ecosystems literature. In this chapter, the voice of the entrepreneur is brought to the fore to explore their views on and experiences of the Bristol entrepreneurial ecosystem. This brings a valuable and heretofore overlooked perspective on entrepreneurial ecosystems. It is argued that the entrepreneur experience and perception is not 'one-size-fits-all', as the singular term 'entrepreneur' might imply: rather, an early-stage entrepreneur will experience the entrepreneurial ecosystem differently to a laterstage entrepreneur. Similarly, the support required and resources accessed within an entrepreneurial ecosystem differ depending on the stage of business (startup or scaleup). In this chapter, the case is made that entrepreneurs are not merely passive beneficiaries of the supportive institutional elements of an entrepreneurial ecosystem, rather, that they play an active role in shaping the entrepreneurial ecosystem.

Chapter 8 concludes the thesis. The theoretical contributions to knowledge are synthesised. The potential implications for practitioners and policymakers are clarified. The thesis closes by outlining opportunities for future research.

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CHAPTER 2. Literature review: An interrogation of the entrepreneurial ecosystems concept

2.1 Introduction

This chapter is dedicated to the exposition and interrogation of the entrepreneurial ecosystems concept. Interwoven throughout this chapter is a review of the historical theoretical lineages which helps to situate the entrepreneurial ecosystems phenomenon within a broader context of literature about regional economic development. By leaning on empirical research as well as theoretical approaches in the entrepreneurial ecosystems literature, the purpose of this chapter is to delineate the "basic assumptions and boundary conditions" (Lange and Pfarrer, 2017, p. 408) that enable us to operationalise and understand the entrepreneurial ecosystems concept.

Setting the scene: the intellectual puzzle and rationale for the research

The field of entrepreneurial ecosystems research is broad, and there are many approaches and angles that could be taken in a critique of the literature. An academic with an interest in power and governance would produce a different review to one engaged in researching social networks, for instance. The impetus for this research project stems from the researcher's own professional experience of working with entrepreneurs, designing and delivering business support programmes, and holding roles related to regional economic development and entrepreneurial ecosystem development. The lightbulb moment was observing a disconnect between the practice of entrepreneurial ecosystem development, and the associated policy

and theory. This formulated itself into an intellectual puzzle to be resolved through academic research.¹⁰

The researcher's practical experience of entrepreneurial ecosystem development initially came from working in an entrepreneur-facing community management role (2015-2017) based across cities in the North of England. These cities had what the theory might call nascent entrepreneurial ecosystems; i.e., ones where resources were sparse and connections were poor (Spigel and Harrison, 2018). An introduction in 2016 to the six domains of an entrepreneurship ecosystem (Isenberg, 2011), at a workshop organised by the ScaleUp Institute¹¹ and run by Daniel Isenberg himself, was persuasive of the 'nine prescriptions' that regions could employ to 'create' an entrepreneurship ecosystem. 12 The approach advocated was definitively top-down with an emphasis on actions that could be taken by government and policymakers. However, the researcher's practical experience had shown her that the presence of the six domains was patchy in Northern cities, and that any entrepreneurial activity that existed was happening despite the local and regional government, not because of it. The resulting observation was that there was a chasm between the actual needs of entrepreneurs (which appeared to be best-served through bottom-up community engagement, opportunities to network, and bespoke programmatic support) and the top-down policies developed by local and regional government. These experiences and perspectives formed the researcher's

¹⁰ The researcher's positionality is discussed in more depth in the methodology chapter (Chapter 4).

¹¹ The ScaleUp Institute aims to make the UK the best place to scale a company. It does this by researching and reporting on the needs of UK scaleups, hosting discussions, and advocating for the needs of scaleup entrepreneurs. See: https://www.scaleupinstitute.org.uk/.

¹² The nine prescriptions are detailed in: Isenberg, D. (2010) *How to Start an Entrepreneurial Revolution*. Harvard Business Review, June 2010, pp. 1-12.

'rudimentary conceptual framework' (Miles and Huberman, 1994) which went on to inform the direction of the empirical research.

It is only with hindsight that it is possible to see that at the time the researcher was formulating these ideas based on her practical experience, a seismic shift in the theoretical and policymaking sphere was occurring in parallel. Around the same time as Daniel Isenberg's 2010 article in the Harvard Business Review came the publication of Brad Feld's 2012 book, 'Startup Communities'. These two foundational texts were highly influential for policymakers who wished to seize on the promises of entrepreneurial growth that were implicitly and explicitly attached to the creation of a vibrant entrepreneurial ecosystems (Mason and Brown, 2014; Motoyama *et al.*, 2014; Stam and Spigel, 2017; O'Connor *et al.*, 2018; Spigel, 2018). Broadly speaking, Feld (2012) endorsed a bottom-up approach led by entrepreneurs, whereas Isenberg (2010, 2011) advocated for a top-down approach comprising targeted government-led interventions. He both of these approaches shared a common emphasis on the importance of the entrepreneur as an individual and of the context within which he or she was situated (Stam, 2015).

The latter point regarding context was particularly inviting to policymakers who wanted to spearhead supportive interventions which would create the conditions in which high growth entrepreneurship could flourish (Mason and Brown, 2013). In the UK, the creation of the Tech

¹³ Feld, B. (2012) Startup Communities: Building an entrepreneurial ecosystem in your city. Hoboken, New Jersey. John Wiley and Sons, Inc.

¹⁴ A more in-depth critique of both Feld's and Isenberg's ideas can be found later on in this chapter.

City Investment Organisation in April 2011 by the then Prime Minister David Cameron, showed the government's commitment to supporting economic growth through innovation and technology-enabled startups and scaleups (Tech City Investment Organisation, 2012). This was preceded in November 2010 with a speech by Mr Cameron in which he outlined his government's approach: "We're not just going to back the big businesses of today, we're going to back the big businesses of today, we're going to back the big businesses of tomorrow. We are firmly on the side of the high-growth, highly innovative companies of the future. Don't doubt our ambition." ¹⁵

Significantly, Mr Cameron's speech, and the creation of a government-backed organisation focussed on high growth business and technology-enabled entrepreneurship, demonstrated the willingness of the public sector to proactively build on existing entrepreneurial activity to support more entrepreneurship and attract inward investment to an area. Following on from the 2008 financial crisis and subsequent recession, the state was prepared to intervene in the market in order to supercharge economic growth through entrepreneurship.

Parallel to policymakers' interest in entrepreneurial ecosystems came an increase in academic research in this area (Spigel, 2018). The increasing interest in entrepreneurial ecosystems in academic and policymaking circles from 2010 onwards can be exemplified by the rise in Google searches for the topic, and an increase in related publications in academic journals and practitioner-facing reports (Alvedalen and Boschma, 2017; Spigel, Kitagawa and Mason, 2020; Theodoraki, Dana and Caputo, 2022), as depicted in Figure 1 and Figure 2 (pages 20 and 22 in

¹⁵ Source: https://www.gov.uk/government/speeches/east-end-tech-city-speech. Accessed 27 October 2022.

the Introduction chapter). Academic curiosity in the topic could be seen to be a continuation of previous research in related areas, such as clusters and innovation districts, as will be presented further on in this chapter. But it is important to highlight that it was also motivated by a desire to bring some theoretical robustness to the concept that was evidence-based, in light of its popularity with practitioners and policymakers (Stam, 2015).

Understanding how entrepreneurial ecosystems work is the key question that academics and policymakers alike need to answer if we want to explore their emergence, support their ongoing development, or indeed look forward into the future and consider their longevity.

Although much has been written on the topic, it is not yet clear from the existing literature why some entrepreneurial ecosystems thrive, others decline, and yet others fail to develop (Roundy, Brockman and Bradshaw, 2017). Without understanding the mechanisms that help entrepreneurial ecosystems to function, we are unable to design appropriate policy interventions or assess their effectiveness.

Questions about the emergence of entrepreneurial ecosystems are challenging to answer.

Taking a historical view of present-day successful entrepreneurial ecosystems, for example,

Silicon Valley or Boston in the United States of America, only provides the partial insight that

entrepreneurial ecosystems are "path dependent and rooted in their historical and institutional

trajectory" (Brown and Mason, 2017, p. 14), and does not fully explain what combination of

actors, processes, events, and institutions facilitated the growth of entrepreneurship. Such

"accidents of history" (Roundy, Bradshaw and Brockman, 2018, p. 5) are embedded to the

extent that it becomes difficult to disassociate the 'success' of a particular entrepreneurial

ecosystem from the context-specific ingredients that caused its emergence and subsequent development.

It is within this niche of entrepreneurial ecosystem development where the present research project aims to contribute to the academic discourse on this subject. The contention of this thesis is that if we can identify and explain the mechanisms of entrepreneurial ecosystems, and address the disconnect between policy and practice, we will be able to deepen our understanding of how an entrepreneurial ecosystem functions effectively and be better equipped to design appropriate interventions that can support its development.

The structure of this chapter

This chapter is organised thematically into three sections, each concerned with an in-depth interrogation of a particular aspect of the entrepreneurial ecosystems concept that merits further investigation. The thematic areas are presented in the order of broad to narrow, starting with the geographic space and place of an entrepreneurial ecosystem, moving on to consider the institutions that constitute an entrepreneurial ecosystem, and ending with a final section focussed on individual entrepreneurs within the entrepreneurial ecosystem. The intention is to demonstrate the gaps in the literature that this research project will respond to through an analysis of the empirical data gathered during fieldwork.

The first section of this chapter considers spatial approaches to entrepreneurial activity. Here, there is a review of two antecedents to entrepreneurial ecosystems: industrial districts and clusters. These two key concepts within economic geography are shown to have influenced the

development of the entrepreneurial ecosystem concept, in particular with regards to how entrepreneurial activities are spatially arranged within a geography. Moving on, the emergence of the entrepreneurial ecosystems concept is described, and early influential articles are outlined to explore its theoretical lineages, with a particular focus on spatiality. Place and space are established to be fundamentally important and it is argued that further clarification about scale and boundaries is required to advance our understanding of the entrepreneurial ecosystems concept.

The second section of this chapter moves on to consider how the identification of institutional elements has contributed to how we understand and perceive entrepreneurial ecosystems in theory and practice. Institutional elements are defined and described within the extant literature as the building blocks of an entrepreneurial ecosystem. There follows a critical review of the principal institution-led frameworks which set out the list of commonly accepted elements within an entrepreneurial ecosystem. It is argued that while this approach has brought much-needed clarity to what an entrepreneurial ecosystem looks like, we lack the concomitant depth of understanding about how these institutional elements work together to make an entrepreneurial ecosystem function. Moreover, the extant literature does not clearly identify non-entrepreneur stakeholders or fully explain their role within the entrepreneurial ecosystem, despite their close association with institutional elements.

The third section of this chapter focusses on how entrepreneurs are depicted within the literature on entrepreneurship and entrepreneurial ecosystems. Despite the centrality of entrepreneurs to the entrepreneurial ecosystem concept, we lack an understanding of their

experiences and perceptions of the institutional elements. The way that entrepreneurs are portrayed in the extant literature is as beneficiaries of the entrepreneurial ecosystem. It is argued that this broad-brush approach lacks nuance over who an entrepreneur might be, and as a result, does not help us to understand how different entrepreneurs might experience the entrepreneurial ecosystem.

Finally, this chapter concludes by summarising the key defining aspects of the entrepreneurial ecosystems concept, and the gaps in our knowledge. The conclusion shows how this close reading of the literature leads to the three research questions that will be addressed through the remainder of this thesis.

2.2 Spatial approaches to entrepreneurial activity

This section of the literature review focusses on the first of three thematic areas that will be considered throughout this chapter: spatial approaches to entrepreneurial activity. First, this section considers two important concepts in economic geography (industrial districts and clusters) and demonstrates their influence on entrepreneurial ecosystems with relation to the importance of geographic notions of place and space. Next, the early literature in the field of entrepreneurial ecosystems is introduced, in part to show from where the concept emerged, and also to emphasise again the importance of geography as an influential and defining aspect of the entrepreneurial ecosystems concept. Finally, this section turns to address the notions of place and space within an entrepreneurial ecosystem. While there is broad agreement that a place-based entrepreneurial ecosystem is regional, it is revealed that there remains a gap in the

literature in relation to how these regional boundaries of an entrepreneurial ecosystem are defined and interpreted.

Industrial districts and clusters: antecedents to entrepreneurial ecosystems

There is a long tradition of research that considers why different places have different paths of economic development (Martin and Sunley, 2006; Audretsch, Belitski and Desai, 2015; Szerb *et al.*, 2017; Qian, 2018). Joseph Schumpeter (1934) argued that entrepreneurship is the necessary ingredient for the 'creative destruction' that results in economic growth. For Schumpeter (1934), economic growth can be brought about by internal actors who use the processes of innovation and entrepreneurship to disrupt the status quo. With entrepreneurship's links to economic growth and development, it is easy to understand why entrepreneurial ecosystems have caught the imagination of policymakers. There are two concepts in particular whose influence can be seen in later literature about entrepreneurial ecosystems: industrial districts and clusters. Each will be considered in turn.

Writing around the turn of the 1900s, Alfred Marshall is considered to be the father of the modern concept of the industrial district (Belussi and Caldari, 2009): his original use of the term 'localization of industry' emerged in the late nineteenth century and was used to characterise certain geographic areas in England that had "a concentration of many small businesses of a similar character in particular localities" (Marshall, 1920, p. 268). Marshall (1920) identified that geographically co-located individual firms benefitted by sharing access to common infrastructure and services because this drove down the cost of production. Industrial districts experienced a revived popularity almost a century later, for instance Saxenian's (1990)

empirical observations of the resurgence of Silicon Valley, but they were different from their eponymous predecessor both empirically and conceptually. Harrison (1992, p. 471) states that the 'modern industrial district theory' of the 1980s can be defined not only by the spatial proximity of firms, but also by their relational proximity. Drawing on Granovetter (1985), Harrison (1992) argues that embeddedness and trust are key to this differentiation. In the present day, industrial districts seem to have fallen out of favour with policymakers and academics, however Vorley (2008) argues that their continued influence can be seen in more recent developments in the field of economic geography, in particular the concept of clusters.

The concept of a cluster was popularised by Porter (1998) as both an academic concept and a policy tool (Martin and Sunley, 2003), and supporting cluster development became indispensable to regional economic development strategies (Trippl *et al.*, 2015). Porter (1998, p. 78) defines a cluster as "a geographically-proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities." A key part of his definition is that these companies and institutions are 'clustered' geographically within a defined geographic area. Porter argues that it is the co-location of firms within a cluster that can ultimately lead to the success or failure of individual companies within a global competitive market. The spatial dimension of clusters builds on Marshall's (1920) insights into localised industrial districts. Whereas an industrial district comprises small firms working within a typical production supply chain (upstream and downstream processes), a cluster encompasses companies within horizontal chains, which produce complementary products and services (Porter, 1998). For instance, within the winemaking cluster of California, not only are there upstream and downstream connections between producers, vintners, and sellers, but

also horizontal links to the wider agricultural cluster and the tourism cluster (Porter, 1998). Martin and Sunley (2003) question why the cluster concept gained so much traction whereas other related concepts emerging from economic geography, such as regional innovation systems, did not. Their answer to this is that Porter couched his terminology in language that was policy-friendly rather than overly academic and obtuse (Martin and Sunley, 2003). Similarly, Brown (2000) highlights that policymakers' use of the term clusters has transformed it from being merely an academic term to referring to the process by which local competitiveness is promoted and local economic growth is achieved. Neumeyer and Corbett (2017) lament the ease with which the terms 'ecosystem' and 'cluster' are used interchangeably, despite their conceptual differences. The current popularity of the entrepreneurial ecosystems concept amongst policymakers has echoes of this earlier fascination with clusters: both concepts have been seized upon as a panacea to revitalise economies (Brooks, Vorley and Gherhes, 2019).

An emphasis on spatial proximity runs through industrial districts and clusters – firms and businesses are located within the same geographic region – but each concept interprets that geography at a different scale. Alfred Marshall was writing at a time of the second industrial revolution in Britain (late 19th century and early 20th century), when modern industrial methods were better able to exploit natural resources. Marshall (1920) draws on the potteries in Staffordshire and the steel works in Sheffield to show how these specialised industries, and associated specialised technical skills and knowledge, emerge from the physical conditions (soil, climate, mines etc.) that are particular to a certain geography. Dependence on these natural resources meant that industry was very much tied to a particular place. A Marshallian industrial district refers to an area where "a concentration of firms has settled down" (Belussi and

Caldari, 2009, p. 336), typically within a large city, although over time, industrial districts also spread to the city outskirts and surrounding towns. The modern industrial district of the 1980s scales up from city to region: Saxenian (1990, p. 91) characterises the regional economy of Silicon Valley as "an American variant of the industrial districts of Europe." The scale at which we are to understand the concept of a cluster is not clear: Porter (1998) does not delineate the geographic boundaries within which companies are concentrated. This results in "conceptual and empirical confusion" and means that clusters can be interpreted by different policymakers and analysts in different ways (Martin and Sunley, 2003, p. 10).

Despite this potential for confusion, it is clear that both clusters and industrial districts can be defined in part by the co-location of firms within a specific and bounded geographic area. This particular theme carries through strongly to the current phenomenon of entrepreneurial ecosystems, where proximity (of entrepreneurs to each other and of entrepreneurs to resources) is paramount. Within the entrepreneurial ecosystems concept, knowledge spillovers which relate to entrepreneurial learning occur when entrepreneurs can easily meet and network with each other (Autio *et al.*, 2018). A 'well-functioning' entrepreneurial ecosystem is one which has munificent resources and a strong network to facilitate access to those resources (Spigel and Harrison, 2018), again implying the importance of proximity within an entrepreneurial ecosystem. An awareness of this heritage of the entrepreneurial ecosystems concept brings into focus the theoretical influences of clusters and industrial districts, in particular with relation to the spatial dimensions as discussed here.

Emergence of the entrepreneurial ecosystems concept

As indicated above, and as the following paragraphs will outline, physical proximity within a geographically defined spatial area is significant for entrepreneurial ecosystems, highlighting the concept's roots in industrial districts and clusters. This geographic leaning is apparent in the very terminology used: ecosystem, a term from ecology, is inextricably related to place. The term 'entrepreneurial ecosystem' brings together two different fields: economic-based activity (entrepreneurial), and an ecological view of environments and interactions (ecosystem). To unpick the epistemological origins of the ecological underpinnings of entrepreneurial ecosystems, we can look to Hannan and Freeman's (1977) seminal paper, 'The Population Ecology of Organisations', in which the authors argue the case for taking a population-ecology theoretical approach to organisation-environment issues such as growth and competition. This analogy between business and management studies and ecology opened a new avenue of thought which is still relevant today. The ecosystem concept was introduced into management studies by Moore (1993) who wrote about the 'business ecosystems' of high growth, high-tech companies such as IBM and Apple Computers. Equating the "swirl of capital, customer interest, and talent generated by a new innovation" to new species emerging from nature's resources, Moore (1993, p. 76) shows the importance of cooperation within and between businesses to help foster innovative products, echoing the idea of co-located companies that is central to industrial districts and clusters.

The use of terminology from ecology (a field outside of business and management studies) and the analogy between organisations and species has enabled academics and practitioners to move beyond entrenched vocabularies to discover new ways of thinking. This can be referred

to as metaphorical redescription: "[using] familiar words in unfamiliar ways" (Rorty, 1989, p. 18). The familiar words 'entrepreneurial' and 'ecosystem' when combined into the singular term 'entrepreneurial ecosystems' provides a novel way of referring to a particular form of high growth entrepreneurship within a spatially defined area. The phrase 'entrepreneurial ecosystem' has redefined how and where we think about entrepreneurship as occurring, not merely at the scale of the individual entrepreneur, but also within the spatial scale and context of the city, region, or nation.

An early work which refers to an ecosystem along these lines is by Bahrami and Evans (1995) who draw on ecological metaphors to explain the success of Silicon Valley. They demonstrate that, in an area where there is a high failure rate of new ventures, 'flexible recycling' of knowledge and skills within the Silicon Valley ecosystem mean that new firms arise "from the ashes of failed enterprises" (Bahrami and Evans, 1995, p. 63). The constituent parts of the 'ecosystem' that Bahrami and Evans (1995) identify are remarkably similar to the elements of an entrepreneurial ecosystem described two decades later by Isenberg (2011), Stam (2015), and Spigel (2017). Bahrami and Evans (1995) situate their analysis by drawing on Marshallian industrial districts and clusters, implying that the Silicon Valley ecosystem emerged out of the cluster of high technology firms that were co-located in that geographic area.

A further early definition of the concept that would later become known as an entrepreneurial ecosystem is that of an 'entrepreneurial system' (Spilling, 1996; Neck *et al.*, 2004). Here too, the phenomenon under investigation has strong ties to a particular geographic area. In his description of the 1994 Olympic Winter Games in Lillehammer, Spilling (1996) moves away

from a tradition in the entrepreneurship literature to refer to the 'hero' entrepreneur (Hornaday and Bunker, 1970; Brockhaus Sr., 1980; Cooper, Woo and Dunkelberg, 1988), and instead considers the context within which entrepreneurship occurs. This approach echoes that of van de Ven (1993) who argues that a historical focus on entrepreneurial success as a result of individual entrepreneurs overlooks the impact of other actors and institutional arrangements within a macro-infrastructure. Neck *et al.* (2004) draw on both Spilling (1996) and van de Ven (1993) to identify the 'entrepreneurial system' within the region of Boulder County, Colorado, USA, demonstrating how incubators, networks, physical infrastructure, and certain key individuals within the entrepreneurial system play a role in supporting the development of successful entrepreneurs, within a specific geography.

These early usages of the term(s) entrepreneurial (eco)system emphasise entrepreneurial activity occurring within a defined geography, an idea that is also present within the literature on industrial districts and clusters. The influence of economic geography is evidently strong, but academics have also identified other influences on the entrepreneurial ecosystems concept.

Acs et al. (2017, p. 3) identify two predominant lineages of entrepreneurial ecosystems: one strand is strategy literature, which they define as focussing on "value creation and capture by individual firms"; the second strand is the regional development literature which focusses on the "territorial boundedness of an ecosystem." Acs et al. (2017) surmise that the strategy literature focusses on the individual firm's performance, often within a global context, and that the leadership of a local firm is important. Given that an entrepreneurial ecosystem is widely acknowledged to inhabit a local or regional context rather than a global context (Cohen, 2006; Mason and Brown, 2014; Stam, 2015; Mack and Mayer, 2016; Spigel, 2017; Malecki, 2018;

Wurth, Stam and Spigel, 2021), and that there is an emphasis on individual entrepreneurs rather than firms, the influence of the strategy literature on the entrepreneurial ecosystems literature appears to be less prominent than that of the regional economic development literature. Within the latter body of research, Acs *et al.* (2017) highlight the shared focus of both clusters and entrepreneurial ecosystems on the economic performance of a defined geographic area, which gives weight to their shared intellectual foundations.

Spigel (2018) highlights five strands that have contributed to the entrepreneurial ecosystems literature: entrepreneurial environments, clusters and innovation systems, entrepreneurial contexts, a city region focus, and high-growth firms. This approach brings together discussions about the spatial dimensions of the entrepreneurial ecosystem (geography); the fact that it is influenced by the context (societal, cultural, and political) in which it takes place; and the specific focus on high growth entrepreneurship as the ideal output of an entrepreneurial ecosystem. This list of influential strands of literature again emphasises the influence of industrial districts (contained within Spigel's (2018) reference to entrepreneurial environments) and clusters on the entrepreneurial ecosystem, specifically highlighting the notion of place as a source of competitive advantage. The inclusion of innovation systems here by Spigel (2018) is to emphasise the importance of knowledge spillovers for innovation, and the role that knowledge spillovers play in an entrepreneurial ecosystem. Spigel's (2018) focus on city regions is particular to the political geography of the UK, and hints at some of the debate over how a region (and its boundaries) is defined and described. In sum, the relevance of Spigel's (2018)

¹⁶ In the last few years, the term 'City Region' seems to have become anachronistic, having been replaced as a political entity by Combined Authorities, for example: Sheffield City Region has become the South Yorkshire (cont.)

classification to a discussion about the emergence of the entrepreneurial ecosystems concept is that it affirms the theoretical lineages of industrial districts and clusters, in particular emphasising the importance of place.

By referring to specific papers and broadening our understanding of how the entrepreneurial ecosystem concept emerged, it becomes possible to differentiate it more clearly from its predecessors in the field of economic geography (clusters and industrial districts) whilst still acknowledging their undoubted influence with relation to geographic scale and proximity. Key additional aspects of the entrepreneurial ecosystem concept are revealed, for instance, the importance of context, the role of the entrepreneur, and the impact of institutional arrangements on entrepreneurship within a defined place.

Place and space in an entrepreneurial ecosystem

As discussed above, the intellectual roots of the entrepreneurial ecosystems concept clearly show that spatiality is important. However, the geographic notions of place and space are complex and contested, and as such, the spatial dimensions of the entrepreneurial ecosystems concept merit further consideration. Identifying the places and spaces of an entrepreneurial ecosystem is of both theoretical and practical significance. To enter into this discussion, we must first have a solid conceptual understanding of both place and space, and how they relate to one another. In his seminal work, "Space and Place: The Perspective of Experience", Yi-Fu

Mayoral Combined Authority (political region) or the South Yorkshire region (geographic region). There are some exceptions, for example, Liverpool City Region Combined Authority, which is a political entity covering the geographic region of Liverpool City Region.

Tuan (1977, p. 6) wrote: "The ideas 'space' and 'place' require each other for definition ... What begins as undifferentiated space becomes place as we get to know it better and endow it with value." For Tuan (1977), space could be experienced in three different ways by an individual: as the relative location of objects or places to other objects or places; as the distances between places; and as an area defined (bounded) by a network of places. Tuan (1977) defined place as a type of object which defines a space, whether that is the three corners (places) of a triangle (space) which give it shape, or physical landmarks (places) within a new neighbourhood (space) which transform it from unfamiliar to familiar. This transformation from place into space occurs because humans imbue places with value, and therefore acknowledge their reality.

Entrepreneurial ecosystems are comprised of place-based institutions, the majority of which have a physicality within the geographic area, for instance: universities, accelerators, incubators, offices, and coworking spaces. Following Tuan's (1977) logic as described above, these physical institutions (places) turn a city or region (space) into an entrepreneurial ecosystem. As shall be discussed in section 2.3 which follows next in this chapter, the literature to date has concerned itself with identifying which institutions (places) are significant for an entrepreneurial ecosystem. Whilst this is important, we can build on this by elevating our understanding of how those places relate to each other within the geographic space, and by better identifying where the boundaries of that space lie. The use of the terminology 'region' to define the geographic location of an entrepreneurial ecosystem belies the overlapping and conflicting boundary lines that exist across multiple plains: geographic, political, economic, social, and cultural. A 'space' such as a region can be viewed through all of these lenses, and each one provides a different and competing definition. As such, whilst it is accepted that an

entrepreneurial ecosystem is spatially conceptualised (Cohen, 2006; Mason and Brown, 2014; Stam, 2015), we lack a more thorough understanding of what this really means, not least when considering issues such as scale and boundaries.

Analysing the entrepreneurial ecosystem within a geographic scale is a common approach and will be the focus here. (Whilst other analytical approaches including sectoral-based entrepreneurial ecosystems (Spigel, 2022) or digital entrepreneurial ecosystems (Weill and Woerner, 2015; Sussan and Acs, 2017) are acknowledged, they are not the focus within this thesis.) Within an approach to analysing entrepreneurial ecosystems based on geography we can see echoes of a similar confusion that exists within the clusters concept, where convincing definitions at different scales can be found (Malecki, 2018) ranging from national to local. Similarly, empirical examples of entrepreneurial ecosystems range from its existence within a single institution through to the idea of a national entrepreneurial ecosystem.

A university campus provides an example of a single-institution entrepreneurial ecosystem (Miller and Acs, 2017; Theodoraki, Messeghem and Rice, 2018). Here, it is argued that this self-contained environment has its own entrepreneurial culture which, if curated appropriately, can provide access to useful resources which enable entrepreneurship to flourish. These resources are not always immediately available within the confines of the institution's ecosystem; it is only with an open and bottom-up approach (Miller and Acs, 2017) that entrepreneurs within those institutions can engage with the world outside the metaphorical four walls of the self-contained single-institution ecosystem.

At the other end of the spectrum, practice- and policy-based organisations such as the Global Entrepreneurship Monitor, the OECD's Entrepreneurship Measurement Framework, and the World Bank's Ease of Doing Business rankings take a national level approach to understanding and reporting on entrepreneurial ecosystems. Taking the nation as the unit of analysis allows for comparisons between countries and can be useful for national policymakers as a benchmarking tool. Acs, Autio and Szerb (2014) introduce the idea of 'National Systems of Entrepreneurship', whereby national datasets on entrepreneurship are combined with the context of a country's institutional environment. Acs, Autio and Szerb (2014) argue that differences in productivity between countries can be explained by considering entrepreneurship rates at an individual level alongside the institutional framework at a national level, and they present a tool to compare and contrast national entrepreneurial ecosystems. Further examples of understanding an entrepreneurial ecosystem at a national scale come from Isenberg (2010) who cites the cases of Rwanda, Israel, and Chile to bolster his thesis that governments can (and should) put in place national-level institutions and initiatives to create an 'entrepreneurship ecosystem' in their countries. In the policy and practitioner sphere, Startup Genome publishes an annual report which ranks national entrepreneurial ecosystems based on metrics across six factors: performance, funding, market reach, connectedness, talent and experience, and knowledge (Startup Genome, 2021).

It is important to be able to situate a city or regional entrepreneurial ecosystem within its national context, as entrepreneurs are impacted by the political and economic factors and policies that are country-level as well as those that are regional or local. An entrepreneurial ecosystem at a national level may be considered appropriate scale of analysis for smaller

countries where regional disparities are perhaps not so great as those that exist within the UK (McCann and Ortega-Argilés, 2021). However, even within a small country such as Estonia, it has been found that sector- and place-specific factors necessitate policy interventions that are more locally and regionally targeted, whilst remaining complementary to those set out at a national level (Reidolf *et al.*, 2019). A potential limitation of considering an entrepreneurial ecosystem as a national-level phenomenon is that this approach does not reflect the economic diversity within nations (such as the UK) that occur at a city or regional scale (McCann and Ortega-Argilés, 2021). Rates of entrepreneurship vary considerably between regions of the UK: according to the latest ONS data, in 2020 the highest business birth count was in London where 89,000 new companies were started, compared to the lowest rate of 10,000 in the North East (Office for National Statistics, 2021). Therefore, to treat the UK as a single *national* entrepreneurial ecosystem would ignore the complexity of regional and local constraints and opportunities. Within an entrepreneurial ecosystem, it is clear that place and context matter.

In between those two extremes is the entrepreneurial ecosystem at the scale of the city and the region (Neck *et al.*, 2004; Cohen, 2006; Stam and van de Ven, 2007; Feld, 2012; Motoyama, Watkins and Knowlton, 2014; Brown and Mason, 2017; Florida, Adler and Mellander, 2017; Stam and Spigel, 2017). With this approach we can clearly see the conceptual lineages to industrial districts and clusters. This approach is favoured by policymakers and practitioners. For instance, organisations such as Startup Genome and Startup Blink, which have a distinct policy and practitioner lens, provide ranked lists of entrepreneurial ecosystems, and the vast majority of the entrants on these lists are cities. There are some exceptions, such as 'Edinburgh-Glasgow' and 'Toronto-Waterloo' in Startup Genome (2021), and 'Boston area' and

'Tel Aviv area' in Startup Blink (2022). Startup Genome conflates two cities into one entity because their definition of an entrepreneurial ecosystem is "a cluster of startups and related entities that draw from a shared pool of resources and generally reside within a 60-mile radius of a central point in a particular region" (Startup Genome, 2021, p. 23). Somewhat similarly, the approach that Startup Blink take is to "cluster cities together when they are part of the same urban environment" (Startup Blink, 2022, p. 14). Adopting a regional scale (rather than national scale) to analyse entrepreneurial ecosystems is arguably a more practical approach for this research project which centres on a UK city, especially given the influence of policy and the strong practitioner-led focus of much of the discussions around entrepreneurial ecosystems.

Insights and gaps

This first thematic section of the literature review considered the entrepreneurial ecosystem as a spatially defined phenomenon, drawing on its theoretical lineages in the concepts of industrial districts and clusters, and showed how this theme of entrepreneurship occurring within a defined geography has been present since the earliest forays into this field of research. The notions of place and space were deconstructed and used to explain the place-based nature of the entrepreneurial ecosystems concept. While it is acknowledged that some literature takes a single institution or a national approach to exploring entrepreneurial ecosystems, it was argued that the regional focus is usually the dominant scale at which an entrepreneurial ecosystem is analysed.

The gap in the literature relates to the boundaries of the entrepreneurial ecosystem. Even with the consensus that an entrepreneurial ecosystem is place-based and best understood at the

scale of the region, there is a lack of nuance and specificity here. A 'region' can be understood in a whole host of different ways – geographically, politically, socially, culturally – and regional boundaries are mutable and vary from person to person. Indeed, Jones (2017) argues that political, economic, and geographic boundaries rarely align completely. Feldman (2014, p. 15) uses the example of Silicon Valley to argue that regional boundaries are fluid – it "does not exist on any conventional map" yet we all know where it is. Above and beyond the lack of specificity around regional boundaries is the potential confusion over the boundaries of the entrepreneurial ecosystem: we do not know if they align with the 'region', despite this being implied in the literature.

It is important to respond to this gap for a number of reasons. From a theoretical standpoint, understanding the boundaries of an entrepreneurial ecosystem and whether or how they match up to a pre-defined geographic region would increase the specificity of how an entrepreneurial ecosystem is defined as a geographic concept. With an awareness of the geographic boundaries of an entrepreneurial ecosystem, it becomes possible to set the parameters for any investigation into the concept. In the case of this thesis, understanding the spatial dimensions of the Bristol entrepreneurial ecosystem (as well as understanding how these dimensions are established and interpreted by different stakeholders) means that the people and processes that contribute to its mechanisms can be more easily identified. From a practical viewpoint, knowing the geographic spread of an entrepreneurial ecosystem could help practitioners and policymakers to be more targeted in their interventions. For instance, if it is established that entrepreneurial activity is concentrated in just one area of the geographic

region, it may become a political or economic imperative to ensure that access to the entrepreneurial ecosystem and the support it provides is open to all.

2.3 Institutions as a defining aspect of an entrepreneurial ecosystem

The first thematic section of this chapter considered the entrepreneurial ecosystem as a spatially defined phenomenon. In doing so, there was reference to institutions as the 'places' within an entrepreneurial ecosystem. This second section focusses in on the topic of institutions to explore how they have become accepted as the 'building blocks' of an entrepreneurial ecosystem, and to highlight where our knowledge on this subject can be further enhanced. First, this section will critically analyse six institution-led frameworks that seek to explain the entrepreneurial ecosystem concept through the identification of a set of institutional elements. Next, there is a critical review of four selected definitions of an entrepreneurial ecosystem, all of which emphasise the importance of institutions coalescing to produce the conditions for entrepreneurship. Finally, the literature about non-entrepreneur stakeholders is reviewed. Whilst concepts such as dealmakers (Feldman and Zoller, 2012) and bridging assets (Mason and Brown, 2014) are useful insofar as understanding how connections between entrepreneurs are formed, it is argued that they do not answer the question of how connections between institutions occur. This reveals the gap in the literature related to explaining exactly how the institutional elements coalesce within the entrepreneurial ecosystem, and who makes that happen.

Institution-led frameworks

Institutions are the political, economic, and social organisations, regulations, and norms which enable, curtail, and influence actors within an economy and society (North, 1991). Within the context of an entrepreneurial ecosystem, an 'institutional element' describes formal institutions such as universities, the public sector, access to finance, incubators, accelerators, and coworking spaces, as well as informal institutions such as an entrepreneurial culture, supportive government policy, and entrepreneurial networks. There are six institution-led frameworks which provide detail on the type of institutional elements that comprise an entrepreneurial ecosystem, and which will be the subject of this section.

Four of these institution-led frameworks were authored by Isenberg (2011), Stam (2015), Spigel (2017), and Brown and Mason (2017), all of whom are well-respected authorities on the topic of entrepreneurial ecosystems. A fifth framework comes from a World Economic Forum report (2013), and is included to show that the approach taken by practitioners and policymakers is remarkably similar to that taken by researchers. The sixth framework comes from an influential paper by Neck *et al.* (2004): as discussed in the opening section to this chapter, an 'entrepreneurial system' is an early example of what would later become known as an entrepreneurial ecosystem. These six institution-led frameworks are presented visually in chronological order on pages 67 to 69 (Figure 4 to Figure 9). Following this will be a discussion and critique.

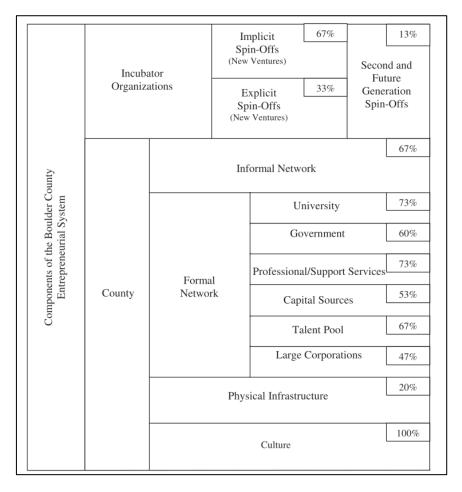


Figure 4: A framework showing the components of an 'Entrepreneurial System' (Neck et al., 2004, p. 199)

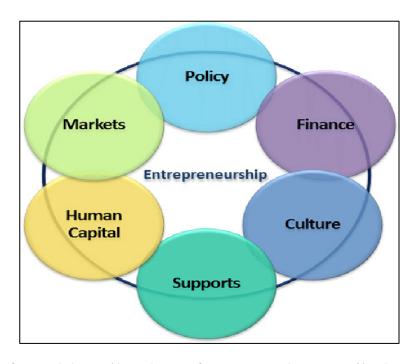


Figure 5: A framework showing 'the six domains of an entrepreneurship ecosystem' (Isenberg, 2011, p. 7)

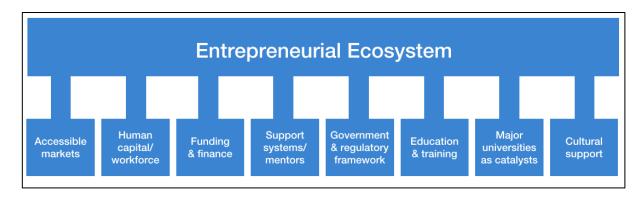


Figure 6: A framework showing 'the eight pillars of an entrepreneurial ecosystem' (World Economic Forum, 2013, p. 6)

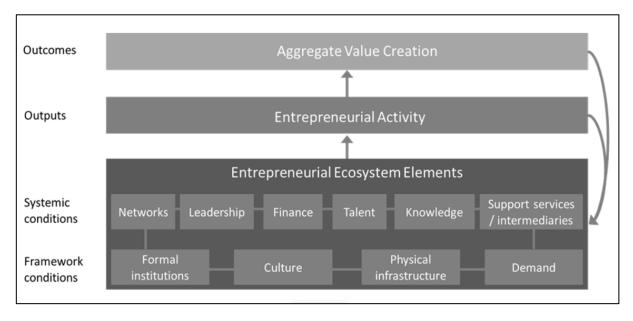


Figure 7: A framework showing 'the elements, outputs, and outcomes of the entrepreneurial ecosystem' (Stam, 2015, p. 1765)

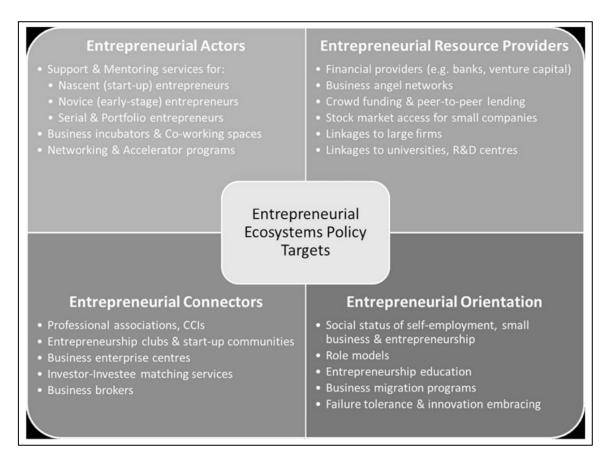


Figure 8: A framework showing 'the key actors and inter-relationships within entrepreneurial ecosystems' (Brown and Mason, 2017, p. 17)

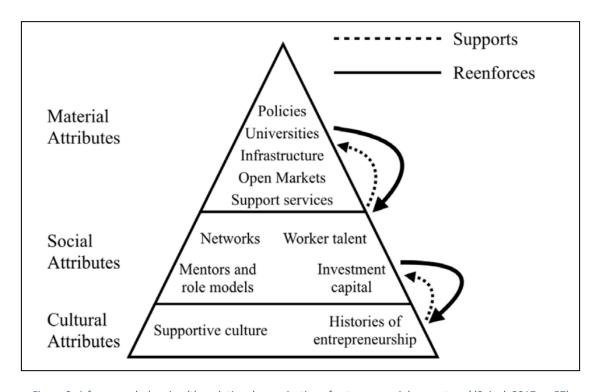


Figure 9: A framework showing 'the relational organization of entrepreneurial ecosystems' (Spigel, 2017, p. 57)

Entrepreneurial ecosystems are described as having components (Neck *et al.*, 2004), domains (Isenberg, 2010, 2011), pillars (World Economic Forum, 2013), attributes (Stam, 2015), or actors and factors (Spigel, 2020), the majority of these being formal institutions in the public and private sectors. Stam and Spigel (2017) bring together the 'framework conditions', referring to the social and political formal and informal institutions within a place, and the 'systemic conditions', referring to the networks of entrepreneurs, leadership, finance, talent, knowledge, and support services within an ecosystem.

Table 1 on the following page brings together these six institution-led frameworks, in order to highlight commonalities, and to demonstrate where there are gaps. Varying combinations of these institutional elements sit within the physical infrastructure of a place and are influenced by culture and government policy (listed below the black horizontal dividing line in Table 1). This analysis fits with Stam and Spigel's (2017) 'systemic conditions' (the former) and 'framework conditions' (the latter), as indicated in the first column of Table 1.

The institutional elements identified across these six frameworks are commonly referred to and are broadly accepted across the entrepreneurial ecosystems literature (Malecki, 2018; Wurth, Stam and Spigel, 2021; Theodoraki, Dana and Caputo, 2022), and as such, these institutional elements provide a stable basis upon which to conduct the research that is the focus of this thesis.

TABLE 1: COMPARING SIX INSTITUTION-LED FRAMEWORKS FOR ENTREPRENEURIAL ECOSYSTEMS

	Author's categories	Neck <i>et al.,</i> 2004, p. 199	Isenberg, 2011, p. 7	WEF, 2013, p. 6	Stam 2015, p. 1765	Brown & Mason, 2017, p. 17	Spigel, 2017, p 57
	Talent & workforce	Talent pool (Formal network)	Human Capital	Human capital / workforce	Talent	(Not mentioned)	Worker talent
	Large businesses	Large corporations (Formal network)	(Not mentioned)	(Not mentioned)	(Not mentioned)	Links to large firms	(Not mentioned)
•	Access to finance	Capital sources (Formal network)	Finance	Funding & finance	Finance	Financial providers	Investment capital
ditions	Access to markets	(Not mentioned)	Markets	Accessible markets	Demand	(Not mentioned)	Open markets
ic Con	Support services	Support services (Formal network)	Support	Support systems / mentors	Support services / Intermediaries	Support & mentoring services	Support services
Systemic Conditions	Entrepreneur- ship education	(Not mentioned)	Entrepreneurship training	Education & training	(Not mentioned)	Accelerator programmes	Mentors and role models
8	Incubators	Incubator organisations	(Not mentioned)	(Not mentioned)	(Not mentioned)	Business incubators	(Not mentioned)
	Universities	University (Formal network)	Education & research institutes	Major universities	(Not mentioned)	Links to universities / R&D	Universities
Framework Conditions	Networks	Informal network	Entrepreneur's networks	(Not mentioned)	Networks and leadership	Entrepreneurial connectors	Networks
	Infrastructure	Physical infrastructure	(Not mentioned)	(Not mentioned)	Physical infrastructure	Coworking spaces	Infrastructure
	Policy	Government (Formal network)	Policy	Regulatory frameworks	Formal institutions	(Not mentioned)	Policies
	Culture	Culture	Culture	Cultural support	Culture	Entrepreneurial orientation	Supportive culture / Histories of entrepreneurship

Source: Table devised by the author

Grouping these institution-led frameworks together in Table 1 allows us to determine that an entrepreneurial ecosystem *generally* has the following institutional elements, as listed below in Table 2. (The institutional elements presented in Table 2 are taken from the second column in Table 1 entitled 'author's categories'.)

TABLE 2: INSTITUTIONAL ELEMENTS COMMONLY FOUND WITHIN AN ENTREPRENEURIAL ECOSYSTEM

Institutional elements	Notes
Talent and workforce	
Access to finance	
Support services	This includes mentors.
Entrepreneurship-	For example, delivered by an accelerator programme.
specific education	
Incubators	Although only two of the frameworks reference incubators directly,
	they are a source of networks, mentors, and entrepreneurship-
	specific training, all of which occur across the six frameworks.
Networks	
Universities	Included both as a source of education and for their research output.
Markets	

Source: Table devised by the author

These six institution-led frameworks emerged through observations of particular high-growth entrepreneurial ecosystems around the world that have produced outputs that are indicative of a high level of entrepreneurship. Whilst this approach has enabled certain commonalities of an entrepreneurial ecosystem to be identified, one must exercise caution to not fall into the tautological trap whereby "entrepreneurial ecosystems are systems that produce successful entrepreneurship, and where there is a lot of successful entrepreneurship there is apparently a good entrepreneurial ecosystem" (Stam and Spigel, 2017, p. 8). Moreover, while these institution-led frameworks are undoubtedly successful in illuminating the common institutional elements of an entrepreneurial ecosystem, Stam and van de Ven (2019) critique this approach as providing 'laundry lists' of factors without any concomitant explanation of causal

mechanisms and interdependencies. Building on this, Audretsch *et al.* (2021) call for research that focusses on the dynamics of entrepreneurial ecosystems thereby advancing our knowledge above and beyond this approach, which Alvedalen and Boschma (2017) critique as being 'static'. These six institution-led frameworks provide a foundational heuristic for understanding the entrepreneurial ecosystems concept, but we must not overlook that context matters: the empirical research which led to the development of these institution-led frameworks all took place in cities or regions with plentiful incidences of high-growth entrepreneurship. Herein lies much of the appeal behind the popularity of the entrepreneurial ecosystems concept as a policymaking tool, but we should not assume that the 'correct' mix of institutions and programmes will automatically have the desired output of productive entrepreneurship. Therefore, taking a critical approach is particularly important, so as to uncover the mechanisms that link these institutional elements to the emergence of productive entrepreneurship in a spatially defined area.

The importance of institutional elements coalescing

There are four articles which are explicit about the importance of institutional elements coalescing within an entrepreneurial ecosystem. These are amongst the most highly cited papers in the field of entrepreneurial ecosystems (Theodoraki, Dana and Caputo, 2022). These four articles all provide definitions of an entrepreneurial ecosystem, and they are authored by Daniel Isenberg, Colin Mason and Ross Brown, Erik Stam, and Ben Spigel. A critical review of all four definitions comes in the following paragraphs, highlighting how they all emphasise the importance of institutional elements coalescing in order to produce an entrepreneurial ecosystem.

Two of these definitions have strong links to the realms of policy, which speaks to the importance of the entrepreneurial ecosystems concept in practice as well as in theory. The 2010 article by Isenberg cited in the following paragraph was published in the Harvard Business Review, which has a wide readership beyond academia. Isenberg himself is very closely involved in policy and practitioner conversations. For instance, his work at the Babson College (Massachusetts, USA) has led to policy interventions in Costa Rica amongst other places, and he is closely affiliated with the ScaleUp Institute in the UK which aims to influence the direction of policy for scaleup companies. Mason and Brown's 2014 definition comes from a paper they prepared for a workshop organised by the Organization for Economic Cooperation and Development (OECD), which brought together policymakers and practitioners to learn about the latest research and practice in the area of growth-oriented entrepreneurship and entrepreneurial ecosystems. These links to policy and practice are relevant because they emphasise the potential practical implications of academic research in this field.

For Isenberg (2010, p. 3), "the entrepreneurship ecosystem consists of a set of individual elements ... that combine in complex ways. In isolation, each is conducive to entrepreneurship but insufficient to sustain it ... Together, however, these elements turbocharge venture creation and growth." The policymaking appeal of this definition is clear: the implication being that the 'right' ingredients will lead to high growth entrepreneurship. Isenberg (2010) suggests that the key differentiator is in how the elements combine; that their *togetherness* is what unlocks entrepreneurship. This is echoed in the definition provided by Mason and Brown (2014, p. 9) who state that, "an entrepreneurial ecosystem is a set of interconnected entrepreneurial actors, entrepreneurial organizations, institutions and entrepreneurial processes which

formally and informally coalesce to connect, mediate, and govern the performance within the local entrepreneurial environment." In a similar vein to Isenberg (2010), Mason and Brown (2014) use the words 'interconnected' and 'coalesce' to indicate the importance of individual actors and organisations coming together to produce the entrepreneurial ecosystem. Mason and Brown (2014) elevate our understanding of the phenomenon by providing more nuance as to how ('formally and informally') and why ('to connect, mediate and govern the performance') it is important for the individual elements to work in harmony. Stam (2015, p. 1765) condenses his definition to a single sentence, defining an entrepreneurial ecosystem as, "a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship." Similar ideas are contained here: individual elements come together to produce the entrepreneurial ecosystem. For Spigel (2017, p. 50), entrepreneurial ecosystems are "combinations of social, political, economic, and cultural elements within a region that support the development and growth of innovative startups and encourage nascent entrepreneurs and other actors to take the risks of starting, funding, and otherwise assisting high-risk ventures." With this, Spigel (2017) adds more detail to the overarching type of element (social, political, economic, and cultural) and emphasises the outputs of the entrepreneurial ecosystem ('innovative startups' and 'high-risk ventures'). Spigel (2017) is unique amongst these four authors in that he names entrepreneurs within his definition as the individuals who undertake the action(s) to start a business.

From these four definitions, we can see that it is not just the existence of institutional elements which lead to entrepreneurship within a region, rather it is the fact that these elements work in harmony to create the environment for productive entrepreneurship. For instance, Mason and

Brown (2014, p. 5) refer to the "interconnected actors, entrepreneurial organisations, institutions and entrepreneurial processes which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment" (author's italics). However, 'entrepreneurial processes' are defined here as quantifiable measures such as the number of startups, the number of entrepreneurs, and the level of entrepreneurial ambition. The entrepreneurial processes that Mason and Brown (2014) describe do not refer to the process(es) by which the actors, organisations, and institutions are (or become) interconnected. Spigel (2017) similarly emphasises the interrelations and interplay between the various attributes, and asserts that an entrepreneurial ecosystem is an output that occurs when the right inputs align in the right way. However, there are any number of ways in which the various elements interact and shape the entrepreneurial ecosystem, adding to the complexity of the concept (Radinger-Peer, Sedlacek and Goldstein, 2018).

In all six institution-led frameworks outlined in the previous sub-section of this chapter, the authors are explicit that the interrelations between these elements are critical for understanding how these elements combine to produce an entrepreneurial ecosystem.

However, with the exception of Stam (2015) and Spigel (2017) who indicate some causal relations between the elements, none of the institution-led frameworks in Figure 4 to Figure 9 provide insight into exactly how those interrelations might occur. These institution-led frameworks alone do not explain why some places demonstrate a high level of high-growth entrepreneurship and others do not. In the UK for example, all the core cities and city regions boast at least one university. Business owners and citizens of the UK take for granted the fact that our local and national governmental environment is relatively stable compared to many

cities and countries in a non-Western context. The UK business and political environment does not suffer from high levels of corruption or other similar constraints to entrepreneurship (Vorley and Williams, 2016). The UK public sector (locally and nationally) has a statutory obligation to provide support for startups, scaleups, and established businesses alike, whether that is through the provision of free training or through innovation grants. Also, the UK's core cities all have good physical infrastructure comparative to some cities in a non-Western context. Yet despite these similarities across the UK, rates of entrepreneurship vary considerably between regions (McCann and Ortega-Argilés, 2021).¹⁷ In sum, while the literature provides clarity over what the institutional elements of an entrepreneurial ecosystem are, we do not know how they coalesce, despite being informed that it is significant for them to do so.

The role of non-entrepreneur stakeholders in the entrepreneurial ecosystem

In highlighting the importance of institutions for entrepreneurial ecosystems, we must not overlook that it is people (non-entrepreneur stakeholders) who shape those institutions, and who in turn are shaped by them. When non-entrepreneur stakeholders are referred to in the literature it is predominantly in terms of their direct function as a service provider for entrepreneurs, i.e., mentors and advisors or investors. Given the importance of institutions to entrepreneurial ecosystems, it is remiss not to investigate further some of the roles that individuals within those institutions might play in the entrepreneurial ecosystem, in particular with relation to the outstanding question of how the institutional elements coalesce.

¹⁷ See ONS data previously cited to corroborate this assertion in section 2.2, page 62.

The approach within the extant literature towards 'ecosystems actors' is to place them within the list of elements that are needed for an entrepreneurial ecosystem, but this does not ascribe them with agency. Malecki (2018) states that "the presence of intermediaries ... has been well known for decades." In other words, the literature recognises that other people beyond entrepreneurs are important for an entrepreneurial ecosystem to function but does not fully explain who these people are or what they do. For instance, Brown and Mason (2017) state that 'entrepreneurial actors' include incubators, accelerators, and mentors. This definition conflates institutional elements (incubators and accelerators) with people (mentors) and moreover does not acknowledge individuals outside of mentors who might play an important role in the entrepreneurial ecosystem. This lack of specificity in correctly identifying entrepreneurial actors and describing their role means that we are no closer to understanding the processes which help institutions to coalesce within entrepreneurial ecosystems.

Spigel, Kitagawa and Mason (2020) define an entrepreneurial ecosystem as comprising actors and factors, whereby actors comprise entrepreneurs, advisors, workers, and mentors.

Focussing on the non-entrepreneur actors in their list (advisors, workers, and mentors), we can see that there are other individuals who might act as intermediaries who are excluded from this definition of 'actors'. We know however, that bridging assets (Mason and Brown, 2014) and dealmakers (Feldman and Zoller, 2012) play a critically important role in making valuable connections within the entrepreneurial ecosystem and in building networks. There is therefore something of a disconnect between the actors who are listed as being part of the entrepreneurial ecosystem, and the intermediaries who are acknowledged in other related literature but who do not appear in the institution-led frameworks. The following paragraphs

establish how intermediaries are currently referred to in the entrepreneurial ecosystems literature.

Stam (2017, p. 1) refers to ecosystem actors as "practitioners", whose role is to "seek ways to expand entrepreneurial activity in their communities to increase prosperity." In an accompanying footnote, practitioners are defined as "economic development professionals, venture capitalists, universities, chambers, incubators, and accelerators." The problem with this list is that it conflates individuals and organisations together as ecosystem actors. Economic development professionals and venture capitalists are individuals, usually employed by local authorities and venture capital firms respectively. Universities, chambers, incubators, and accelerators are institutions. Whilst both individuals and institutions can be referred to as 'actors' within an ecosystem, it is somewhat remiss to refer to them together under the same umbrella term of 'ecosystem actors' within the institution-led framework of an entrepreneurial ecosystem. It lacks nuance and hinders our understanding of who those individuals are and what function they fulfil within an entrepreneurial ecosystem.¹⁸

Another view of the role of non-entrepreneur stakeholders comes from Brad Feld's book (2012), 'Startup Communities', where the view is expressed that an entrepreneurial ecosystem is comprised of 'leaders and feeders'. Feld (2012) argues that the leaders of an entrepreneurial ecosystem are always the entrepreneurs. They might still be actively building their companies,

¹⁸ This definition also applies too broad a brush to the institutions referenced: venture capitalists, universities, chambers, incubators, and accelerators. There are multiple business models, driving motivations, characters, roles, and organisational structures within each of these institutions, and no two universities or incubators will take the same approach to fulfilling their function within the entrepreneurial ecosystem. Indeed, some potential organisational 'ecosystem actors' may actually be inactive within an entrepreneurial ecosystem.

they might have exited, but their role in the ecosystem is as a leader, i.e., they take the lead in organising events, giving time to up-and-coming entrepreneurs, and setting the best example for the culture of the ecosystem. The 'feeders' are organisations and institutions who provide a ready supply of talent, training, resources, and financial support to all the entrepreneurs in the ecosystem. In Feld's (2012) thesis, these 'feeder' organisations should *not* take the lead in developing the ecosystem. In essence, it is implied that they cannot be trusted to make the right decision for the entrepreneurs (Feld, 2012). The challenge with this approach is that many entrepreneurs do not have the time to play an active role in the entrepreneurial ecosystem alongside building their business. By discounting 'feeders', Feld (2012) shuts down a line of investigation into individuals and organisations who *are* active in entrepreneurial ecosystem development, so we are none the wiser as to how the institutional elements within the entrepreneurial ecosystem might coalesce.

If the entrepreneurs do not take the lead in developing the entrepreneurial ecosystem, then we must consider which other actors do. Within the wider entrepreneurship literature, certain connector individuals, or 'dealmakers' are highlighted as facilitators of entrepreneur networks (Feldman and Zoller, 2012). For Spilling (1996), these individuals are 'community entrepreneurs' who organise entrepreneurial events in order to bring together entrepreneurs within a city or region. 'Animateurs', or 'liaison-animateurs', play a similar role in facilitating network connections between entrepreneurs (Malecki, 2012; Mason and Brown, 2014). Using Feldman and Zoller's (2012) definition of dealmakers as serial experienced entrepreneurial leaders, Pittz *et al.* (2019) show how dealmakers bring in social ties from outside the entrepreneurial ecosystem to benefit local and regional entrepreneurs. In their study of

entrepreneurship in north west Ireland, McKeever, Jack and Anderson (2015) reveal that serial entrepreneurs were starting businesses that were not necessarily aligned with their previous employment or their self-identified skillset. These individuals were motivated to start a business that was embedded within the town as a way of giving back to a tight-knit community that had supported them in their previous entrepreneurial successes (McKeever, Jack and Anderson, 2015). In a similar vein, Fuzi (2015) refers to 'community facilitators' who promote engagement, stimulate encounters, and promote collaboration between entrepreneurs.

Another key individual within an entrepreneurial ecosystem is a community manager (or equivalent) within a coworking space, incubator, or accelerator programme. It is this person's responsibility to get to know the individual entrepreneurs and their businesses, spot useful opportunities within the wider ecosystem, and facilitate connections between entrepreneurs within the incubator or coworking space (Weele, Steinz and Rijnsoever, 2014; Gerdenitsch *et al.*, 2016). The community manager, and other key individuals in the management team of a coworking space, play an important role in bringing together the community and creating a sense of coherence within the entrepreneurial ecosystem (Williams, Vorley and Williams, 2017). Feldman (2014) coins the term 'regional champions' to describe the role of successful entrepreneurs returning to their home town to give back to the community and increase its entrepreneurial success by building networks. For Feldman and Zoller (2012), a 'dealmaker' has a high level of social capital and embeddedness which provides that individual with the necessary toolkit to make connections and facilitate the formation of new firms.

All the intermediary roles described in the preceding two paragraphs are entrepreneur-facing, in other words, the work that they do helps entrepreneurs to come together, but nothing is mentioned about supporting institutional elements to coalesce. Therefore, despite the useful insights into entrepreneur-related issues such as how networks are formed, or how entrepreneurs are introduced to investors and mentors, this body of literature does not answer the gap in the entrepreneurial ecosystems literature as identified above, i.e., how do institutional elements coalesce to produce the conditions for productive entrepreneurship within an entrepreneurial ecosystem. If we do not understand how the institutional elements combine and interact, then our view of the entrepreneurial ecosystem remains static (Alvedalen and Boschma, 2017): as a list of features that exist at a set point in time rather than understanding how they work together dynamically. Without understanding the dynamism of an entrepreneurial ecosystem, we lack insight into how it is developed or how it might emerge and change over time.

Insights and gaps

This second section of the literature review focused on institutions as the building blocks of an entrepreneurial ecosystem. It was possible to demonstrate commonalities across six institution-led frameworks insofar as identifying which formal and informal institutional elements comprise an entrepreneurial ecosystem. The common elements identified were talent and workforce, access to finance, markets, support services and mentors, entrepreneurship-specific education, incubators, universities, and networks (see Table 2, page 72). Caution is urged however, as these institution-led frameworks are based on observations made in areas of high entrepreneurial success. Following this was a presentation and analysis of four definitions of an

entrepreneurial ecosystem, all of which emphasise the importance of institutions coalescing. To further explore the people behind the institutions, the literature about non-entrepreneur stakeholders was reviewed. While this body of literature provides an important explanation of the role of intermediaries in connecting entrepreneurs, we lack insights into the broader role that non-entrepreneur stakeholders might play in joining the dots between the elements of the institution-led frameworks.

Acknowledging the interplay between the institutional elements is important, but it is clear that there is a gap in the literature that explores how this interplay is enacted, and who the non-entrepreneur stakeholders are who join the dots between institutions. From the four definitions and the six institution-led frameworks reviewed here, it is explicitly clear that institutional elements within an entrepreneurial ecosystem need to *coalesce* to produce the conditions for entrepreneurship, but we are none the wiser as to how this happens (Brown and Mawson, 2019).

Responding to this specific gap in the literature is theoretically important because it extends the explanatory power and applicability of the institution-led frameworks. Investigating the processes and people who work 'behind the scenes' of an entrepreneurial ecosystem opens up the opportunity to investigate how the elements listed in the institution-led frameworks coalesce. This is at the heart of understanding the mechanisms of an entrepreneurial ecosystem. With a clearer view of the activities of non-entrepreneur stakeholders, we can start to unlock the processes that lead to institutions coalescing to produce an environment for entrepreneurship to occur. From a practical point of view, it is important to acknowledge and

understand the work that goes on to join the dots of an entrepreneurial ecosystem, as it could potentially unlock supportive policymaking and funding for entrepreneurial ecosystem development activities. Identifying the people who do this work transforms the institution-led frameworks from the risk of being interpreted as solely a tick-box exercise into a useful tool against which to benchmark a real-life entrepreneurial ecosystem and ensure that it is functioning as well as possible.

2.4 Entrepreneurs within an entrepreneurial ecosystem

This chapter started from a broad perspective with a consideration of spatial concerns and the geographic context of entrepreneurial ecosystems. The focus was then narrowed in the second section of this chapter to highlight the institutional elements contained within the entrepreneurial ecosystem. Here, we come to the narrowest point of thematic focus: the individual entrepreneur. First, this section will outline how the subject of the entrepreneur as an individual has been treated within the wider entrepreneurship literature. Next, it is argued that the term 'entrepreneur' is used without enough specification within the entrepreneurial ecosystems literature. Finally, it is shown that although the entrepreneur is situated centrally within the entrepreneurial ecosystems concept, we lack the insight into their experiences of and perspectives on the entrepreneurial ecosystem and its institutional elements. There is a critique of how entrepreneurs are portrayed in the extant literature, as passive beneficiaries of the entrepreneurial ecosystem.

Entrepreneurship and the entrepreneur

Given the importance of entrepreneurship to economic growth, it is important to situate the role of the entrepreneur as the agent who makes entrepreneurship happen. Some of the earlier literature in the field of entrepreneurship focused on the entrepreneur as the key agent of change (Hornaday and Bunker, 1970; Brockhaus Sr., 1980; Cooper, Woo and Dunkelberg, 1988). The perspective taken here was that entrepreneurs had particular characteristics that predisposed them to set up new organisations. Vesper (1982) emphasised the process and outcome of entrepreneurship, rather than considering the characteristics of the individual entrepreneur, i.e., how an innovation could be commercialised as an outcome of the entrepreneur's actions. Gartner (1988) built on this definition by calling for entrepreneurship research to look at what an entrepreneur does rather than who he or she is. He defines entrepreneurship as "the creation of organisations" (Gartner, 1988, p. 26), and identifies entrepreneurs as the agents who make entrepreneurship happen. With this approach, anyone could be an entrepreneur. An entrepreneur therefore does not have any specific traits, rather he or she is defined by their (entrepreneurial or entrepreneurship-producing) behaviours.

Gartner's (1988, p. 28) assessment is that creating an organisation is a complex process, one that is "influenced by many factors." This statement hints at the entrepreneurial ecosystems research field that would later unfold, which takes into account the many factors (and actors) that underpin the creation of new businesses. Venkataraman (1997) provides further depth to our understanding of what it takes to create an organisation, describing entrepreneurship as the process by which opportunities are discovered, created, and exploited to bring future goods and services into existence. Shane and Venkataraman (2000) extend this definition of

entrepreneurship to include "the sources of opportunities, the processes of discovery, evaluation, and exploitation of opportunities, and the set of individuals who discover, evaluate, and exploit them." These insights echo Schumpeter (1934) in foregrounding the necessity for innovation to exist alongside entrepreneurship. Where innovation refers to the application of new knowledge and new technologies, entrepreneurship is what brings that innovation to market and transforms the new idea into a commercial, profit-generating business. And, critically, entrepreneurs are the individuals who make entrepreneurship happen.

There are ongoing debates about the breadth of entrepreneurship research, and what the unit of analysis could or should be. Welter *et al.* (2017) highlight that the field has been increasingly dominated by a focus on high-growth and high-tech entrepreneurship, leading to an 'othering' of aspects such as informal entrepreneurship, women-led entrepreneurship, and lifestyle entrepreneurship. They call for research that explores these 'other' areas in more depth, thus expanding and extending our understanding of who the entrepreneur is, and what motivates or facilitates entrepreneurship in society. Gaddefors and Anderson (2017) argue that entrepreneurship should be understood as both individual and social, influenced by both context and place as well as by the individual entrepreneurs and their behaviours. Gaddefors and Anderson (2017) conclude that entrepreneurship is about change (both social and economic), and therefore that entrepreneurs are the change agents that make entrepreneurial outcomes happen. In essence, entrepreneurs are central to entrepreneurship when understood as both an outcome and a process. This tenet is reflected in the entrepreneurial ecosystems literature as explored in the remainder of this section.

Who is the entrepreneur?

It would be disingenuous to suggest that entrepreneurs are without exception treated within the wider entrepreneurship literature as a homogenous block. There is a view that a diverse mix of entrepreneurs is helpful for an entrepreneurial ecosystem (Morris, Neumeyer and Kuratko, 2015). There is also a recognition that entrepreneurs themselves are diverse – see for instance the literature that considers the differing experiences and needs of female entrepreneurs (Ahl, 2006; Rouse and Woolnough, 2018; Brush *et al.*, 2019). Roundy (2017b) emphasises the importance of having socially-oriented entrepreneurs as well as market-oriented entrepreneurs. There is research which considers the psychological make-up, genetics, and personality traits of entrepreneurs (Shaver and Scott, 1992; Zhao and Seibert, 2006; Zhang *et al.*, 2009; Shane and Nicolaou, 2015). For the most part however, this body of literature does not overlap with the literature on entrepreneurial ecosystems.

Within the entrepreneurial ecosystems literature, entrepreneurs are defined in no uncertain terms as being "ambitious" (Stam and Spigel, 2017), "addict[ed] to entrepreneurship" (Isenberg, 2011), and as "high potential or blockbuster entrepreneurs" (Mason and Brown, 2014), to provide a few examples. Other authors refer to entrepreneurs without any specific qualifiers (see for instance: Theodoraki and Messegham, 2015; Alvedalen and Boschma, 2017; Autio *et al.*, 2018) beyond a general understanding that they are the actors behind ambitious or high growth entrepreneurship. It is recognised that more experienced entrepreneurs (or serial entrepreneurs) bring value to the entrepreneurial ecosystem in terms of sharing their wisdom and inspiring the next generation (Motoyama and Knowlton, 2017; Malecki, 2018; Spigel and Vinodrai, 2020). The argument could be made however that this approach does a disservice to

those later-stage entrepreneurs: it places them as a cog within the overarching entrepreneurial ecosystem machinery – one of the necessary institutional elements as described in the previous section of this chapter – without questioning their own experience of scaling a business within their local entrepreneurial ecosystem. The term 'entrepreneur' within the literature on this topic is not sufficiently interrogated.

Looking at this in more depth, we have no way of knowing whether the entrepreneurs referred to in the entrepreneurial ecosystems literature are early-stage or experienced. Given the inclusion of incubators and accelerators in the lists of elements identified in the institution-led frameworks, we might assume that the entrepreneurial ecosystems literature is predominantly referring to early-stage entrepreneurs. But this could be potentially at odds with the literature's parallel focus on high-growth companies: we do not know whether this terminology refers to companies with the *potential* for high-growth, or companies which have already achieved this status. This contradictory state of affairs could be resolved by more clearly defining 'entrepreneur' within the entrepreneurial ecosystems literature. It is entirely feasible that some of the literature is referring only to early-stage entrepreneurs and startups, and that other literature is referring to later-stage entrepreneurs and scaleups. But unless this is explicitly stated, the question of who the entrepreneur is in the extant entrepreneurial ecosystems literature remains unclear. Where there appears to be much more consensus is that the entrepreneur is central to the entrepreneurial ecosystem, as the following sub-section will demonstrate.

The centrality of the entrepreneur within an entrepreneurial ecosystem

Van de Ven (1993) suggests that a historical focus in the literature on entrepreneurs as individuals led to researchers overlooking the wider entrepreneurship systems in which they were embedded, thereby ignoring the role of other actors in the creation of that entrepreneurial environment. In the past 15 years or so, the research agenda has moved firmly towards a more systems-based approach with a focus on entrepreneurial ecosystems as an institutional environment which supports entrepreneurs and promotes productive entrepreneurship (Stam, 2015; Spigel, 2017). What appears to have been lost in this shift is a consideration of the experiences of entrepreneurs as individuals. This is something of a paradox: it is well established that the entrepreneur is at the centre of the entrepreneurial ecosystem (Feld, 2012; Isenberg, 2014), yet their voice is missing from this body of literature, as argued in the subsequent paragraphs.

The six institution-led frameworks that were outlined in section 2.3 of this chapter identify the institutional elements which comprise an entrepreneurial ecosystem. The institutional elements within the institution-led frameworks were included on the basis that they provide services and access to resources that entrepreneurs need. For instance, a university which provides talented workforce for startups and scaleups, or an accelerator which provides an opportunity for entrepreneurs to learn. Therefore, we implicitly understand that the institution-led frameworks place the entrepreneur at the centre of the entrepreneurial ecosystem as a recipient of these services.

However, we lack a granular understanding of entrepreneurs' experiences and views, and indeed of their role beyond that of passive agents who access support and resources provided by the entrepreneurial ecosystem and its associated institutions. By positioning entrepreneurs as active agents within the entrepreneurial ecosystem, it becomes possible to understand how they might fulfil a role that contributes towards the mechanisms of the entrepreneurial ecosystem. As entrepreneurs are at the centre of the entrepreneurial ecosystem, it behoves us to look more closely at their roles, experiences, and views, as described in the extant literature on this topic.

The institution-led frameworks introduced and discussed in section 2.3 provide a useful starting point to deconstruct the centring of the entrepreneur and some of the methodological approaches to date. A critical review follows. Taking each framework in chronological order, we start with Neck *et al.* (2004) who analysed the results from 184 surveys conducted with CEOs and founders, alongside six semi-structured interviews with business leaders and 15 interviews with founders. The research team sought to understand how 'spin-off organisations' were established, what role incubators play in this process, and the role of the region itself in the entrepreneurial journey.¹⁹ Isenberg (2011) does not refer to specific empirical evidence in his paper, but states that his thesis about the 'entrepreneurial ecosystem strategy' is based on his own experience as an entrepreneur, investor, and government advisor. He also states that his approach has been influenced by the practical application of specific methodologies and interventions undertaken at the Babson Entrepreneurship Ecosystem Project, where, at the

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¹⁹ Neck *et al.* (2004, p. 193) define a spin-off organisation as, "a new firm formed by an individual or group of individuals leaving an existing firm and starting a new firm in the same industry."

time of writing this particular paper in 2011, he held the role of Executive Director. The exact methodologies and interventions upon which his thesis is based are not detailed.

The World Economic Forum report (2013) was based on the analysis of over 1000 responses from entrepreneurs across the globe. Entrepreneurs were asked to identify which of eight preordained entrepreneurial ecosystem pillars were available to them as they built their business. Stam (2015) constructs his model of an entrepreneurial ecosystem by synthesising insights from previous literature: namely, Isenberg (2010, 2011), Feld (2012), and the WEF report (2013), but does not include any new empirical evidence to support the establishment of his model in this paper. Spigel (2017) conducted semi-structured interviews with 51 entrepreneurs across Waterloo and Calgary to uncover their views about their regional entrepreneurial community and the practices that they used in starting and growing their businesses. Brown and Mason (2017) base their 2017 diagram on a paper they co-authored three years prior (Mason and Brown, 2014), and similarly to Stam (2015), they synthesise existing literature to create their four-part model rather than bring in any new empirical evidence.

The institution-led frameworks created by Neck *et al.* (2004), the WEF report (2013), and Spigel (2017) are all informed by empirical research that sought the views of entrepreneurs. We can infer from this approach that the frameworks that these authors subsequently developed were based on the experiences and views reported by entrepreneurs, at least in part. The six domains described by Isenberg (2011) have at their centre 'entrepreneurship', and he opens his article by clearly defining a focus on entrepreneurs. Although no empirical material or methodology is presented, Isenberg (2011) does refer to the implementation of policies and

practices aimed at improving entrepreneurial ecosystems around the world, indicating that a practical approach of working directly with entrepreneurs was taken. The four-part model by Brown and Mason (2017) places 'entrepreneurial actors' alongside 'resource providers', 'connectors', and 'culture', implying that all four are equally weighted. Brown and Mason (2017, p. 16) also state that it is "commonly agreed that entrepreneurship and entrepreneurial actors are at the heart of the ecosystem concept."

Although there are methodological differences between the six institution-led frameworks, what we can infer from the methodological approaches and resulting analysis of the empirical fieldwork undertaken that led to these institution-led frameworks is that entrepreneurs and their needs are at the heart of an entrepreneurial ecosystem. This is reflected across other key papers on this topic. As previously discussed, Feld (2012) identifies entrepreneurs as 'leaders', and Feld and Hathaway (2020, p. 43) argue that entrepreneurs-as-leaders "set the tone, are an essential source of knowledge, and help establish a culture of entrepreneurship in the startup community." Alvedalen and Boschma (2017, p. 891) observe that "the entrepreneur has a central place in the EE [sic] and is the core actor in building and sustaining the ecosystem."

Brown and Mawson (2019, p. 350) hold the view that "the primary focal point of an [entrepreneurial ecosystem] ... is the entrepreneur."

Despite this centring of the entrepreneur within the institution-led frameworks and accompanying literature, much of the conceptual entrepreneurial ecosystems literature lacks an exploration of the entrepreneurs' experiences and perspectives, focussing instead on the institutional environment (Autio *et al.*, 2018; Malecki, 2018; Audretsch, Belitski and Cherkas,

2021). The institutional focus of the frameworks implies an epistemological view of top-down structure impacting on the entrepreneur and moves further away from considering the individual agency of the entrepreneur. We know that entrepreneurs are affected by their broader environment (Van de Ven, 1993; Baker and Welter, 2018) but we do not know how entrepreneurs respond and react to that environment. Malecki (2018, p. 1) argues that a "closer focus on entrepreneurs is needed" given their importance to the overarching system in which they are embedded. It is remiss not to further interrogate how entrepreneurs experience and perceive the entrepreneurial ecosystem, given that they are the agents who make entrepreneurship happen. This oversight is perhaps an unintentional by-product of the institutional and contextual lens of the entrepreneurial ecosystems literature, and the conceptual focus on entrepreneurship as the output and an investigation into the environment in which it flourishes (or not).

Insights and gaps

This third and final section of the literature review focused on entrepreneurs. Within the wider entrepreneurship literature, entrepreneurs are the active agents who make entrepreneurship happen. This section reviewed how the entrepreneur is described and defined within the entrepreneurial ecosystems literature. It was argued that there is a lack of specificity here which hinders our understanding of the entrepreneurial ecosystems concept. It was shown that entrepreneurs are at the heart of the entrepreneurial ecosystem: the elements that form the basis of the institution-led frameworks all have a purpose to serve the interests of entrepreneurs. It was argued that this places the entrepreneur in a passive role and does not ascribe them with agency as an active actor within the entrepreneurial ecosystem.

The gap in the literature identified here relates to the disconnect between, on the one hand placing the entrepreneur at the centre of the entrepreneurial ecosystem and, on the other hand, not exploring the entrepreneur's experiences and perspectives of that entrepreneurial ecosystem. Furthermore, the literature remains unclear about *who* the entrepreneur is, and at what stage they are at on their business journey. Without integrating the entrepreneur more fully into the entrepreneurial ecosystems literature, there is a gap in our understanding about the active role(s) that entrepreneurs can play.

It is important to respond to this gap in the literature in order to reach a more holistic understanding of entrepreneurial ecosystems. To do so, we need to be able to view and understand the concept from different angles and perspectives. Currently, the dominant way of interpreting the entrepreneurial ecosystems concept is top-down, led by a dominant view of it being comprised of institutional elements. Our understanding of the entrepreneurial ecosystems concept would be further enriched with a better understanding of the experiences and perspectives of the entrepreneurs it purports to serve, in other words, adding a bottom-up view of the concept. This requires us to accurately describe who the entrepreneur is and how entrepreneurs experience the entrepreneurial ecosystem; both are areas where the literature does not provide adequate detail. Moreover, in adding this definition and nuance, it becomes possible to see how the entrepreneur plays an important role in the mechanisms of the entrepreneurial ecosystem: as an active agent, the entrepreneur can shape and influence the functioning of the entrepreneurial ecosystem and its component institutional elements.

2.5 Conclusion

This chapter was dedicated to an exposition and interrogation of the entrepreneurial ecosystems concept. Entrepreneurship is the output of an entrepreneurial ecosystem, and the chapter has highlighted the importance of entrepreneurship for economic growth and development. This fact helps to explain the preoccupation with entrepreneurial ecosystems as a policy tool and theoretical construct, and further clarifies the rationale for conducting the research. The literature review was structured around three specific themes related to the entrepreneurial ecosystems concept which merit further exploration if we are to move closer towards an understanding the mechanisms that contribute to the development of an entrepreneurial ecosystem in theory and practice.

The first aspect to be considered related to the entrepreneurial ecosystem as a geographically rooted phenomenon. A geographical perspective provides just one way of conceptualising an entrepreneurial ecosystem; there are multiple lenses through which to view the phenomenon, including for instance, sectoral based. What emerged is that even if a geographical perspective is taken, an entrepreneurial ecosystem can be explored and interpreted at different scales. Within this, the regional scale dominates, but we lack a full understanding of how the boundaries of the entrepreneurial ecosystem map on to a geographic region. It was argued that relational ties have an influence on how the place and space of an entrepreneurial ecosystem is conceptualised and understood by its stakeholders. This leads to the first research question (RQ1) which is the topic of Chapter 5: "What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?".

The second aspect considered in this chapter related to the nature of an entrepreneurial ecosystem as being comprised of institutional elements, and how this approach impacts on our understanding of dynamics such as the ongoing development of an entrepreneurial ecosystem. The literature on intermediaries was presented, and links were made between this body of literature and that on entrepreneurial ecosystems to make the case that non-entrepreneur stakeholders have an important role to play in the entrepreneurial ecosystem. The argument made here was that we need to identify the processes which help institutions to coalesce, and also identify the roles of non-entrepreneur stakeholders in enacting these processes. This analysis underscores the second research question (RQ2) which forms the basis of Chapter 6: "What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?".

The third aspect that was addressed in this literature review was the role of entrepreneurs in an entrepreneurial ecosystem. A closer look at how entrepreneurs are described and portrayed in the extant literature reveals that the term is not sufficiently unpacked to describe the multitude of different types of entrepreneurs who are associated with an entrepreneurial ecosystem. The argument was made that we need to take more account of the perspectives of entrepreneurs in order to understand their multifaceted experiences and to ascribe them with agency within the entrepreneurial ecosystem, as well as provide a bottom-up perspective on entrepreneurial ecosystems to complement the top-down perspective that dominates via the institution-led frameworks. This analysis leads to the third research question (RQ3) which will be discussed in Chapter 7: "How do entrepreneurs experience and perceive the entrepreneurial ecosystem?".

CHAPTER 3. Introducing a conceptual model to (re)interpret an entrepreneurial ecosystem

3.1 Introduction

This chapter serves two purposes. First, it is an invitation to reflect upon two dominant ways in which an entrepreneurial ecosystem is conceptualised: as per the academic institution-led frameworks introduced in Chapter 2, and in the form of schematic diagrams, usually favoured by practitioners and policymakers. Second, this chapter proposes a reimagined conceptual model of an entrepreneurial ecosystem: one comprised of concentric layers, which aims to encapsulate both our general conceptual understanding of the phenomenon as well as serve a purpose in describing the specific Bristol entrepreneurial ecosystem.

This chapter does not respond to one of the three specific research questions; those will be addressed throughout the remainder of this thesis in Chapters 5, 6, and 7 which draw upon the empirical fieldwork. The aim of the present chapter is to consider the entrepreneurial ecosystems phenomenon in a more abstract manner: to reflect on it as a concept and to reinterpret it visually in a way which helps to unlock the answers to the gaps identified in the literature review. The concentric layers conceptual model that is introduced in this chapter then serves as a heuristic framework for the following three empirical chapters.

The proposed conceptual model, whilst inductively derived, is used to facilitate effective understanding of the findings that are presented in the subsequent empirical chapters.

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Chapters 5, 6, and 7 each contain a section that draws upon the concentric layers conceptual model in order to deductively discuss the findings and answer the research questions posed. It is therefore important to approach a reading of the empirical chapters with a full understanding of the conceptual model, hence its inclusion at this juncture of the thesis. The proposed conceptual model enables a fresh look at the entrepreneurial ecosystems phenomenon, and, with further testing and refinement, it is hoped that the model may have wider applicability in this field of research.

This chapter is structured in three sections. First, the chapter opens with a section on how we can understand an entrepreneurial ecosystem as a concept, and what theoretical methodological processes are undertaken in order to deconstruct and reinterpret it. The second section describes two dominant ways in which the entrepreneurial ecosystem is currently conceptualised: as an institution-led framework comprising institutional elements, and as a practitioner-led schematic diagram. This section also highlights the limitations of using these two dominant conceptualisations as heuristic tools to respond to the research questions that are the subject of this thesis. The third section of this chapter provides a reimagining of the entrepreneurial ecosystem through the introduction of the conceptual model, thus unlocking a deeper understanding of the empirical data and enabling the author to respond to the research questions. The implications are presented, followed by an initial evaluation of the model.

3.2 Understanding entrepreneurial ecosystems

This opening section of the chapter focusses on the conceptual nature of an entrepreneurial ecosystem and describes the theorising process that a researcher undertakes when developing a new conceptual model. In contrast to the empirical-led definitions of an entrepreneurial ecosystem that were critically discussed in the literature review, this section explores the concept from a more philosophical and abstract standpoint, reflecting on its conceptual nature and how it is currently understood. This section moves on to define what is meant by a 'conceptual model', and to explore how this relates to theory, theory-building, and theorising. This section ends with a description of how the author developed the concentric layers conceptual model that is proposed in this chapter.

Defining the entrepreneurial ecosystem concept

At its simplest, a concept is a label that "we give to aspects of the social world that seem to have common features that strike us as significant" (Bryman, 2012, p. 8). Concepts are not static: "they shift and re-form their meanings in whatever way a theorist determines" (Hart, 1998, p. 113), and even within similar definitions of the phrase, there are subtle semantic nuances. It is not only theorists who determine the meaning(s) of concepts; they are imbued with meaning and significance by people who use them in everyday life. The concept 'entrepreneurial ecosystem' is contested on three levels: the theoretical, the practical, and the ontological. Theoretically, it is contested because no single definition of it has surfaced as definitive (Alvedalen and Boschma, 2017; Brown and Mason, 2017) despite the substantial literature in this field. Practically, the ambiguous nature of entrepreneurial ecosystems has led to policy interventions that are ineffective (Acs et al., 2016) and counter-productive (Shane,

2009). Spigel and Harrison (2018) suggest that an entrepreneurial ecosystem is a 'chaotic concept': for all of its familiarity as a descriptive phrase, as soon as it is used in an explanatory context, or once policies are derived from it, it becomes problematic. Ontologically, it is contested as to whether or not it can even be considered as a concept (Stam, 2015; Spigel, 2018). There exists a tension between treating an entrepreneurial ecosystem as a concept that can be operationalised and measured (empirically and theoretically) on the one hand and using it as an explanatory heuristic to better understand the conditions that lead to the prevalence of entrepreneurship on the other.

The very existence of the term 'entrepreneurial ecosystem' indicates that it speaks to a particular phenomenon that either cannot be adequately explained by existing language, or that encapsulates new thinking. The fact that it is interpreted and used by stakeholders in different ways emerges from an ontological and epistemological position whereby an entrepreneurial ecosystem is part imagined and part created by its participants (Aldrich, 1990; Acs et al., 2017; Wurth, Stam and Spigel, 2021). Therefore ontologically, it can be said that an entrepreneurial ecosystem exists as a socially constructed concept, albeit one that suffers from a lack of clarity and coherence. It is, however, important to not take a normative view, as evident in some of the early popular literature on entrepreneurial ecosystems (see for instance: Isenberg, 2010; Feld, 2012). Without a full consideration of the institutional context, geographical scale, and interactions within an entrepreneurial ecosystem, there is a risk of counterproductive policymaking leading to unproductive entrepreneurship (Brooks, Vorley and Gherhes, 2019). If we are to treat an entrepreneurial ecosystem as a concept, then we must be prepared to critique it in order to reach a more nuanced definition of the term.

Any concept is, by definition, impossible to describe wholly in a way that satisfies all parties, because our interpretation of concepts come from our own ontological and epistemological position. The phrase 'entrepreneurial ecosystem' has been adopted by practitioners, policymakers, and academics alike to describe an observable phenomenon: namely, that entrepreneurs thrive when they are within a supportive environment. Wurth *et al.* (2021) write that "the concept of entrepreneurial ecosystems is an abstracted idea of a real-world phenomenon." This phrase invites us to consider both what that abstracted idea is, and how the phenomenon manifests itself in the real world. This chapter explores the former by outlining the dominant ways in which we understand and conceptualise this abstracted idea of an entrepreneurial ecosystem. The subsequent empirical chapters focus on the latter, with an exploration of the 'real world', by describing the entrepreneurial ecosystem of Bristol and thus demonstrating the tangibility of the phenomenon.

The process of reimagining a conceptual model

A concept such as an entrepreneurial ecosystem, like any concept in social sciences, is subject to varying definitions, explanations, and interpretations. This constantly iterative process is driven forward by academic research and the development of theories and models to explain phenomena. Although the terms 'model' and 'theory' are often used interchangeably, it is important to distinguish between the two, in order to put some parameters around the purpose of this chapter, which is focussed on conceptual models (or conceptualisations) rather than overarching theories.

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The purpose of theory is to help us to understand the world around us. Silver (1983) defines theory as a unique way of perceiving reality, one which reflects profound insight into a particular aspect of the world. This approach emphasises stretching one's cognitive functions in order to see the particular aspect in question from the theorist's individual point of view.

Another approach to theory comes from Strauss (1995), who notes that theory aims to clarify and explain some aspect of how the world works, in order to simplify often complex issues. This approach implies that theory can provide a model or map which can illuminate a certain issue so that it can be understood by a general audience. Although these two approaches might seem dichotomous, they are in fact complementary. Theories in social sciences which are widely accepted are those which resonate closely with people's experiences of the world (general) even though they originated usually from one singular theorist (individual).²⁰ In order for us to be able to understand a theory, we must be prepared to discover a different way of thinking and attempt to perceive reality in the way that the individual theorist does (Anfara and Mertz, 2006).

A conceptual model, in contrast to a theory, is a "theoretical and simplified representation of the real world" (Bill and Hardgrave, 1973, p. 28). The emphasis here is on representation not explanation. A conceptual model shows "the main elements of any structure or process and the relationships between these elements" (McQuail and Windahl, 1993, p. 2). Whereas the purpose of a theory is to use explanations to predict things, the aim of a conceptual model is to

²⁰ In entrepreneurship for example, two theories which are widely accepted are entrepreneurship which is led by opportunity discovery and by opportunely reacting to asymmetric information, and entrepreneurship which is led by creative destruction and innovation. These theories are *generally* applicable and understood, and they were developed by two *individuals*, Kirzner (1973) and Schumpeter (1934).

imagine (Shoemaker, Tankard Jr. and Lasorsa, 2004). A conceptual model focusses on certain elements and connections related to a particular aspect, thus simplifying an aspect of reality. In this way, conceptual models can be valuable theory-building tools. There are parallels between building a conceptual model and building a theory: a conceptual model must be generally useful, even while it requires the reader to see reality from the point of view of the individual who proposes the model. And just like theories which can be proven and disproven, no conceptual model is infallible. The concentric layers conceptual model proposed in this chapter can in turn be strengthened through testing, iterating, and further reimagining.

As highlighted in the introduction to this chapter, the proposed conceptual model was arrived at inductively. This is not unusual for a qualitative study, whereby a theory emerges during the data collection and analysis phase (Creswell, 1994). A process of theorising was undertaken by the researcher to mentally deconstruct the two existing dominant conceptualisations about entrepreneurial ecosystems (institution-led frameworks and schematic diagrams) and build the new conceptual model. Whereas 'theory' implies a fixed truth, Cornelissen (2006) describes theorising as a creative process whereby the researcher combines her knowledge of the literature, preliminary analysis, and background assumptions, alongside her intuition, to reconsider and reimagine how to approach the particular aspect of the world that is under investigation. Weick (1989) describes the process of theorising as "disciplined imagination", a process which involves both wide-reaching creative and metaphorical thinking (imagination) and a more structured analytical approach (discipline) thus enabling the researcher to validate these leaps of imagination by discarding some approaches and further investigating others. The criteria for validation that Weick (1989) offers are whether a theory is interesting, obvious,

connected, believable, beautiful, and real.²¹ The process by which the proposed conceptual model was built reflects the experience of theorising described by Cornelissen (2006) and Weick (1989).

Theorising (or building a conceptual model) is not a linear process whereby the researcher follows a preordained set of steps. It is convoluted, messy, at times frustrating, and requires the researcher to undertake leaps of imagination coupled with more structured reflection and iteration; in other words, employing a disciplined imagination as per Weick (1989). As referenced in the introduction to this thesis and in the literature review (Chapters 1 and 2), this research project originates in the researcher's professional experience in the field of entrepreneurial ecosystems, which helped to form some initial background assumptions about how the concept works in practice. This direct practical experience in entrepreneurial ecosystems was both a blessing and a curse; it was only through extensive reading and furthering knowledge of the literature that normative thinking could be put to one side, and the concept could be approached in a more critical manner. Throughout the process of data collection, certain themes emerged more strongly than others, requiring the researcher to remain reflexive and be open to thematic ideas that went above and beyond what might have been expected.²² The *preliminary analysis* undertaken to further identify and define these themes led to some initial sketches that would become the proposed conceptual model. Over the course of writing up the empirical chapters, the researcher relied on her intuition to then

²¹ These six criteria are considered further in section 3.4 of this chapter, in an initial evaluation of the proposed conceptual model.

²² Researcher reflexivity is discussed in more detail in the methodology, Chapter 4.

modify the conceptual model further, in order for it to more usefully and holistically serve as an explanatory tool to respond to the research questions. The four aspects described here were all integral to the process of theory-building and developing the conceptual model, and they relate directly to Cornelissen's (2006) argument that theorising relies on knowledge of the literature, preliminary analysis, background assumptions, and intuition.

It is important to underline how this conceptual model can be used in theory and in practice. Deutsch (1952) proposes four uses of conceptual models. First, a model can help to organise data by showing elements and the relationships between them. Second, a model can help us to make predictions by leading us to testable hypotheses. Third, a model can be used as a heuristic tool, to simplify and explain a particular aspect. Fourth, a model can help us to decide what kind of measures might be needed and how to design appropriate tests. The concentric layers model proposed here relates to the first and third usage. To organise data, the model shows the main institutional elements of an entrepreneurial ecosystem and proposes new relationships between them, and as a heuristic tool, the model is used in the empirical chapters to simplify and explain the findings that emerged from data analysis.

3.3 Current conceptualisations of an entrepreneurial ecosystem

This section describes two dominant conceptualisations of an entrepreneurial ecosystem, both of which emerge from the three themes which were presented in the literature review. These themes were based on three broadly accepted principles of entrepreneurial ecosystems: that it is a geographically rooted phenomenon, comprised of institutions, which centres the

entrepreneur. The contention put forward in the literature review was that further research is required in these areas in order to unpack the mechanisms of an entrepreneurial ecosystem.

That being said, these three principles have shaped how we understand an entrepreneurial ecosystem; the assertion presented here is that they have informed two dominant conceptualisations which will be discussed in turn.

The first conceptualisation that will be outlined originates in academia and was discussed in depth in the literature review (Chapter 2): an entrepreneurial ecosystem can be conceptualised through one (or many) institution-led framework(s) which identify the formal and informal institutional elements of which it is comprised. The second conceptualisation that will be outlined is the schematic diagram approach, which acts as a navigational tool for entrepreneurs and other stakeholders inside and outside the entrepreneurial ecosystem. Schematic diagrams are favoured by policymakers and practitioners, whose aim in developing them is to make the ecosystem navigable and easy to visualise.

Whilst both approaches have been influential in how we imagine and conceptualise an entrepreneurial ecosystem, they do have certain limitations in terms of their use to explain and understand the mechanisms within an entrepreneurial ecosystem. These limitations will be outlined. The scene is thus set for the remainder of the chapter: it is within this context that an alternate conceptualisation of an entrepreneurial ecosystem is proposed, one which takes steps towards addressing some of these limitations, and which provides a new lens through which to imagine, (re)interpret, and understand an entrepreneurial ecosystem.

Institution-led frameworks

In the literature review, the six main institution-led frameworks were outlined (Figure 4 to Figure 9, pages 67 to 69) and the common elements between them were brought together in a table (Table 1, page 71). This exercise demonstrated that the academic interpretation of entrepreneurial ecosystems has, to date, relied heavily on the theory of institutions as a foundational tool to understand entrepreneurial ecosystems. Broadly, the explicit aim of the institution-led frameworks is to illuminate what institutional elements exist in entrepreneurial ecosystems which produce successful entrepreneurship. Implicitly, these frameworks place a marker in the sand about the necessary institutions, but do not provide the granular detail of how those institutions interact with each other; who ensures that cross-institutional interaction happens; and what the entrepreneur experience is of navigating those institutions. (A visualisation of the six institution-led frameworks can be referred to in Chapter 2, Figure 4 to Figure 9, pages 67 to 69, alongside a corresponding critique.) The elements included in all of the frameworks are institutional, for example: sources of finance, physical infrastructure, incubators, government, universities, and markets. The institution-led frameworks also include some of the more intangible elements of entrepreneurial ecosystems, for example: networks, supportive culture, mentors, and role models.

It was argued in the literature review that one of the limitations with the institution-led frameworks is that they provide a static, snapshot view of an entrepreneurial ecosystem and do not illuminate how an entrepreneurial ecosystem might evolve over time (Alvedalen and Boschma, 2017; Audretsch *et al.*, 2021). The institution-led frameworks (especially those produced by policy-facing organisations or publications such as the WEF, the OECD, Harvard

Business Review, and the Babson College) risk being interpreted by a policymaking readership to imply all entrepreneurial ecosystems must have the same institutions in order to produce successful entrepreneurship (Brown and Mawson, 2019). Moving from a static view of an entrepreneurial ecosystem to a more dynamic view would help us to observe how the various elements interact with each other, with entrepreneurs, and with the world outside of the entrepreneurial ecosystem (Rocha, Brown and Mawson, 2021; Perugini, 2022).

A further limitation of the frameworks approach is that they can become a 'straw man' against which to evaluate other entrepreneurial ecosystems, and those that do not have all the elements may be deemed to be lacking. As highlighted in the literature review, there is a tautology inherent in this approach: are these elements required to produce entrepreneurship, or are we reifying these elements because entrepreneurship already exists in these particular locations? There are further limitations to the institution-led frameworks that directly relate to the research questions posed: these shall be addressed in a following sub-section of this chapter.

Schematic diagrams

The second conceptualisation of an entrepreneurial ecosystem, a schematic diagram, is practitioner-led rather than academic. Unlike the institution-led frameworks, which provide a general heuristic to help us understand the concept, schematic diagrams are linked to specific entrepreneurial ecosystems. Whereas the purpose of institution-led frameworks is to theorise about entrepreneurial ecosystems as a concept, the purpose of schematic diagrams is to show the networks of business support and resources available to entrepreneurs in a defined

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geographic area. There are countless different examples of cities and regions which have created schematic diagrams of their entrepreneurial ecosystems: Sioux Falls, South Dakota²³; Bogota, Colombia²⁴; Sacramento, California²⁵; and the Sunshine Coast Regional Council (Australia)²⁶, to name just a few. There are also examples of entrepreneurial ecosystems represented by a national-level schematic diagram: Palestine²⁷, Somalia²⁸, and Italy²⁹. Figure 10 below shows Somalia as a national example, and Figure 11 on the next page shows the entrepreneurial ecosystem 'map' for the West of England³⁰ to provide a regional example.

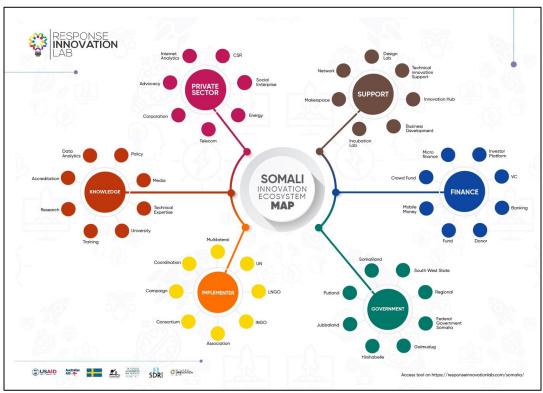


Figure 10: Somali Innovation Ecosystem Map.
Source: https://www.responseinnovationlab.com/somaliaecosystem-map/.

²³ Source: https://siliconprairienews.com/2019/04/what-is-an-ecosystem-a-sioux-falls-ecosystem-report/. Accessed: 15 July 2021.

²⁴ Source: http://www.ecosysteminsights.org/how-bogota-generated-150-new-tech-companies-in-the-last-six-years/. Accessed: 15 July 2021.

²⁵ Source: https://startupsac.com/sse/. Accessed: 15 July 2021.

²⁶ Source: https://invest.sunshinecoast.qld.gov.au/Innovation/The-Ecosystem. Accessed: 15 July 2021.

²⁷ Source: https://silatech.org/entrepreneurship-ecosystem-map-of-palestine/. Accessed: 15 July 2021.

²⁸ Source: https://www.responseinnovationlab.com/somalia-ecosystem-map/. Accessed: 15 July 2021.

²⁹ Source: https://startupwiseguys.com/dive-into-the-italian-startup-ecosystem/. Accessed: 15 July 2021.

³⁰ The map is accessible online with the title: 'West of England Growth Map'. Source: https://engine-shed.co.uk/projects/regional-growth-map/. Accessed: 15 July 2021.

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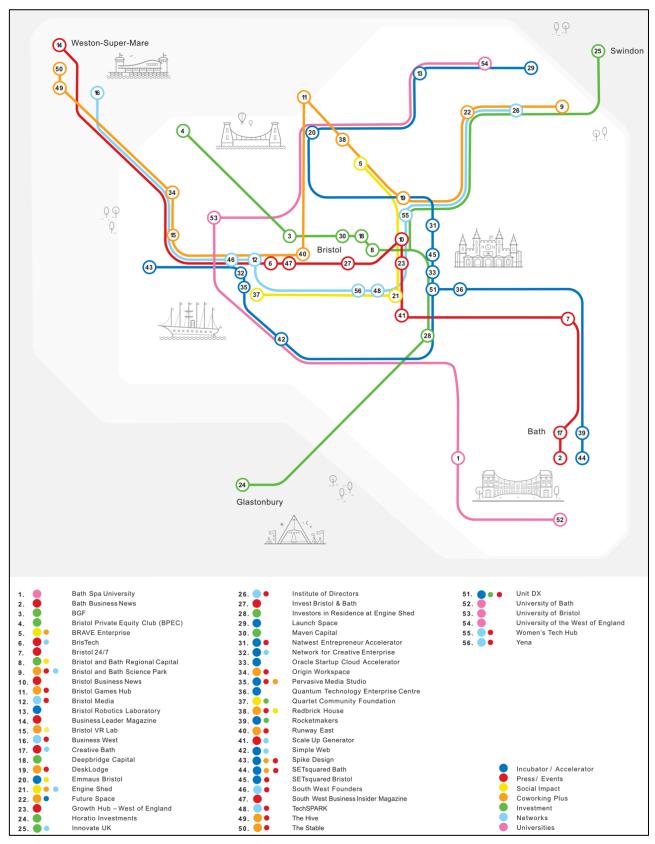


Figure 11: A schematic diagram of support for entrepreneurs in the Bristol area with an explanatory key. Source: https://engine-shed.co.uk/projects/regional-growth-map/.

The aim of these schematic diagrams is primarily to help entrepreneurs and other stakeholders to navigate the entrepreneurial ecosystem by showing how the various actors and institutions are interconnected within an entrepreneurial ecosystem. The primary intended audiences for schematic diagrams are entrepreneurs or potential entrepreneurs, and their purpose is to help those individuals to navigate what can be a confusing landscape of entrepreneurship support within a particular geographic location. A secondary audience might include regional or national policymakers, decision-makers, funders, and investors, as described below. For instance, the West of England map describes itself as: "a snapshot of the Bristol and Bath startup [and] scaleup support ecosystem [which] highlights a selection of the organisations that support founders, employees, network builders, newcomers and interested people working in and with startup and scale up companies."³¹

A secondary audience is anyone outside the entrepreneurial ecosystem who needs to familiarise themselves with the full range of support available. For outsiders looking into the entrepreneurial ecosystem (for example, national policymakers or high growth investors), the schematic diagrams can provide a useful reflection of the entrepreneurial ecosystem, providing them with insights into available resources, and informing them about where to meet entrepreneurs. More often than not, the schematic diagrams are representative and simplified visual aids, for instance a 'hub-and-spoke' map such as the Somali example in Figure 10, or colour-coordinated lines in the case of the West of England map in Figure 11, comparable to a

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³¹ Source: https://engine-shed.co.uk/projects/regional-growth-map/. Accessed: 15 July 2021.

map of an urban public transport network (for instance, the Transport for London map of the London Underground).

Despite taking different formats, it is clear that each serves as a navigational tool for the entrepreneurial ecosystem. Both schematic diagrams depicted in Figure 10 and Figure 11 include information relating to broadly grouped elements of the entrepreneurial ecosystem, for instance, *support* (the brown 'hub' on the Somali map) and *incubator / accelerator* (the blue line on the West of England map). They also contain specific local information that is relevant to that particular entrepreneurial ecosystem. With those respective broad areas for instance, we can see *Design Lab* as a 'spoke' leading from the support hub on the Somali map, and *Bristol Robotics Laboratory* as a numbered circle (13) on the blue line on the West of England map. To the informed insider, the names of specific institutions such as Design Lab or Bristol Robotics Laboratory will be familiar and will provide a useful reference of how or where to seek the particular support they might be looking for. To the uninformed outsider, the fact that these two named institutions are both grouped within a broader element of *support* or *incubator / accelerator*, immediately gives enough initial information about that particular element, even if the names are not familiar.

Schematic diagrams show the resources that are available to entrepreneurs within a local or regional area. Resources depicted within a schematic diagram include support programmes, physical spaces in which to work or set up an office, organisations that can provide advice, sources of funding, and the main institutions and public sector bodies such as universities or inward investment functions. Schematic diagrams appear to reflect the lists of elements

commonly found in the institution-led frameworks that are then adapted to the local context. Schematic diagrams are intrinsically related to a particular geography, and inherent within this lies one of their limitations when it comes to theorising: the entrepreneurial ecosystem that they represent is likely to be ever-changing, with new institutions or programmes arriving, and others ceasing to exist. Indeed, the West of England Growth Map comes with the caveat that the map is "not exhaustive [and] inevitably out of date the day it was published". Further limitations that relate specifically to the areas of focus of this thesis are discussed in the following sub-section.

Limitations of these two conceptualisations

The previous sub-sections have described the two dominant conceptualisations of entrepreneurial ecosystems: the institution-led frameworks proposed by academics, and the schematic diagrams that are usually produced by practitioners and policymakers. Both conceptualisations bring greater understanding and clarity to the entrepreneurial ecosystem concept in theory and in practice, yet both approaches have limitations if we want to reach a more nuanced understanding that can take account of the three issues that were highlighted in the literature review: the scale and boundaries of the entrepreneurial ecosystem; what processes and people help the institutional elements to coalesce; and the lived experiences and perspectives of entrepreneurs. The limitations relating to these three aspects will be considered in turn.

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³² Source: https://engine-shed.co.uk/projects/regional-growth-map/. Accessed 30 July 2022.

The first limitation relates to the geography of the entrepreneurial ecosystem, which is the subject of RQ1. The geographic boundaries of the entrepreneurial ecosystem are deliberately not depicted in the institution-led frameworks, because these are intended to be theoretically explanatory and heuristic devices and are therefore not tied to any one particular geography. The intention of the institution-led frameworks is to be generally applicable, so despite entrepreneurship and entrepreneurial ecosystems being place-based and context-bound, both place and context are absent in the institution-led frameworks. Whilst this increases their use as a heuristic to understand an entrepreneurial ecosystem in a theoretical manner, this also brings a rigidity to the institution-led frameworks: they cannot easily be adapted and applied to specific entrepreneurial ecosystems such as the one that it is the topic of this thesis, the Bristol entrepreneurial ecosystem. Their operationalisability for the purposes of this thesis is therefore limited.

Schematic diagrams by contrast, are designed to relate specifically to a particular geography, be it city, region, or nation. The geographic boundaries are therefore implicit in the very existence of the schematic diagrams. It is presumed that there is a common understanding of the boundaries of, say, the West of England, as depicted in Figure 11. However, the schematic diagrams are illustrative, and are not geographically representative or drawn to scale. In the same way that the Transport for London map skews the real-life geography of London in order to make the London Underground easier to understand, the schematic diagrams similarly do not 'map' directly onto the city, region, or nation in question.³³

³³ See this description of the Transport for London Underground map: "Rather than emphasising distance and geographical accuracy, like other maps, [Harry] Beck based his on the circuit diagrams he drew for his [cont.]

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What the schematic diagrams do implicitly demonstrate however, is that there is an invisible boundary line between what is included in the entrepreneurial ecosystem and what is not. A consequence of 'mapping' an entrepreneurial ecosystem in this way is that inevitably some organisations are excluded, whether on purpose or not. Those institutions that are included in the schematic diagrams of a local entrepreneurial ecosystem may feel legitimised by their inclusion, whereas questions might be raised by institutions that feel they ought to be depicted but are not. The theoretical implication of this is that the schematic diagrams implicitly have an invisible boundary line around what is 'inside' the entrepreneurial ecosystem, as they do not depict what is 'outside' the entrepreneurial ecosystem. It would be reductive to say that entrepreneurs only ever access the resources they need from within the boundaries of the entrepreneurial ecosystem: these types of schematic diagrams attempt to service the common needs of a diverse population of entrepreneurs by providing a navigational guide for the local or regional area. In this practical ambition, they succeed. However, schematic diagrams do not advance our understanding of entrepreneurial ecosystems in a theoretical manner. If we take these types of maps too literally in our quest to understand the entrepreneurial ecosystem concept, we risk reaching a simplified and normative view of the entrepreneurial ecosystem.

The second limitation relates to the processes and people within an entrepreneurial ecosystem, which is the subject of RQ2. Neither conceptualisation helps to shed light on the processes and people that make an entrepreneurial ecosystem function. This was covered in some depth in

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day job; stripping the sprawling Tube network down to a neat diagram of coloured, criss-crossing lines." From: https://tfl.gov.uk/corporate/about-tfl/culture-and-heritage/art-and-design/harry-becks-tube-map. Accessed 30 July 2022.

the literature review in relation to the institution-led frameworks, and the same limitations can be seen in the schematic diagrams: we lack an insight into how the different institutional elements depicted coalesce and work together to produce the environment in which entrepreneurship can flourish. What is missing in both conceptualisations is an explanation of how entrepreneurs and institutions are connected, and indeed, how institutions are connected with other entrepreneurs and institutions operating in the same entrepreneurial ecosystem.

The processes which underpin the functioning of an entrepreneurial ecosystem, and the people who make those processes happen, are overlooked in both the institution-led frameworks and the schematic diagrams.

The third limitation relates to the experiences and perspectives of entrepreneurs within an entrepreneurial ecosystem, which is the subject of RQ3. One commonality between the institution-led frameworks and the schematic diagrams is that although the entrepreneur is central to their existence, she or he is not depicted in either. Indeed, entrepreneurs are notable by their absence in both conceptualisations. Neither the institution-led frameworks nor the schematic diagrams show how an entrepreneur might access the support available in an entrepreneurial ecosystem. Furthermore, if we take the institution-led frameworks and the schematic diagrams at face value, it might be assumed that all the institutional elements represented are of equal importance to the functioning of the entrepreneurial ecosystem. But if we consider the entrepreneurial ecosystem from the point of view of an entrepreneur, it is likely that some elements are more important than others, and some elements are non-existent, depending on the stage of the entrepreneur and their business. Without any

representation of the entrepreneur within either conceptualisation, it is difficult to understand or describe how the entrepreneurial ecosystem works from their perspective.

In summary, while both the institution-led frameworks and schematic diagrams have contributed to our general understanding of what an entrepreneurial ecosystem 'looks like', both conceptualisations limit a deeper and more nuanced understanding of the mechanisms that make an entrepreneurial ecosystem function.

3.4 A revised conceptualisation of entrepreneurial ecosystems

In response to the limitations of the two conceptualisations presented above, this final section of the chapter introduces a revised conceptual model of an entrepreneurial ecosystem. The proposed conceptual model shows that the entrepreneurial ecosystem is comprised of three concentric layers, each one separate yet linked to the others, and that these three layers, when taken together, provide a more rounded and nuanced view of how the entrepreneurial ecosystem works. This section describes the conceptual model, discusses its implications, and includes an initial evaluation of its use as a heuristic tool.

The concentric layers of an entrepreneurial ecosystem

A 2010 paper written by Patrick Cohendet, David Grandadam, and Laurent Simon was instrumental in helping the author to formulate her ideas about how an entrepreneurial ecosystem could be conceptualised. In their article, "The Anatomy of a Creative City", Cohendet et al. (2010) build on the work of Richard Florida (2002, 2008; Florida, Mellander and Stolarick,

2008) which identifies that creative people are necessary for a city to flourish, and suggest that a focus is needed on the creative *processes* that enable innovative ideas to flourish. The proposition of Cohendet *et al.* (2010) is that new ideas are transmitted from an informal microlevel to a formal macro-level within three layers of a local innovative milieu: the upperground, middleground, and underground. It is the middleground where the facilitative processes occur to transmit a creative idea to a commercialisable product. The emphasis in "The Anatomy of a Creative City" (Cohendet, Grandadam and Simon, 2010) on the role that intermediaries and communities play in facilitating the processes that turn a creative idea into a commercial product brought to the author's mind a number of parallels with the processes and interactions that occur within an entrepreneurial ecosystem, and this provided a springboard for a more indepth exploration about how these processes and interactions might be presented visually.

The proposition in this chapter is to invite the reader to envisage an entrepreneurial ecosystem as a structure comprised of three concentric layers. Borrowing a phrase from Cohendet *et al.* (2010), these layers form the 'anatomy' of an entrepreneurial ecosystem, i.e., the entrepreneurial ecosystem concept is made up of different parts (the layers) that form the whole. Where the language departs from Cohendet *et al.* (2010) is the choice of the word 'layer' rather than 'level'. Level implies vertical movement from one level up or down to the next, whereas layers form part of a whole, with fluidity of movement in all directions. The terminology of underground, middleground, and upperground (Cohendet, Grandadam and Simon, 2010) brings to mind stratified levels, one built on top of the other. This terminology persuades the reader to envisage a cross-section of a city with the underground activity (the level of the creatives) taking place at street level, in disused railway arches or underground

clubs. The upperground by contrast (the level at which creative ideas are commercialised) could be envisaged to take place in a tall skyscraper at the heart of a city's financial district. The 'middleground' acts as the lift or elevator between the street level and the penthouse office, conveying ideas 'up' to be commercialised and transmitting funds 'down' to support further creative endeavours.

By comparison, the layers within this proposed conceptualisation of an entrepreneurial ecosystem are concentric rather than stratified. The conceptual model comprises concentric circles around a core that is entrepreneur-focussed, gradually building out, but all on the same strata, not one level above each other as proposed by Cohendet *et al.* (2010). Each layer contains different institutional elements, all of which provide some type of service or support to entrepreneurs. The specific institutional elements shown in the conceptual model were chosen based on the fact that they are all frequently referred to in the six institution-led frameworks, as highlighted in Chapter 2, Table 1, page 71. The exercise of grouping together the elements within six institution-led frameworks helped to establish that an entrepreneurial ecosystem generally has a certain set of institutional elements (Table 2, page 72). Table 3 on the following page shows the original list from Table 2, with the corresponding name of the institutional element in the proposed conceptual model. The terminology has been adapted for clarity and ease of use within the conceptual model.

TABLE 3: THE LIST OF INSTITUTIONAL ELEMENTS IN THE CONCEPTUAL MODEL

Institutional elements generally found in the institution-led frameworks (Chapter	How the institutional elements are referred to in the conceptual model
2, Table 2, page 72)	
Talent and workforce	Talent
Access to finance	Investment
Support services	Mentors and advisors
Entrepreneurship-specific education	Acceleration
Incubators	Incubation
Networks	Get-togethers
Universities	
Markets	
	Coworking space
	Office space

Source: Table devised by the author

Universities and Markets were identified as common institutional elements across the institution-led frameworks. These have been excluded from the conceptual diagram for the following reasons. Within the institution-led frameworks, universities are generally referred to as a source of education and for their research output. The decision to exclude universities from the conceptual model was made because, unlike institutions such as accelerators or incubators, the *primary* purpose of a university is not to support entrepreneurs. It is important to acknowledge universities as a source of talent, and indeed many universities take an active role in supporting the entrepreneurial ambitions of their students. But the services and resources provided by a university within an entrepreneurial ecosystem are (usually) limited to its own students and graduates, whereas an incubator or accelerator is designed to be open and accessible to all entrepreneurs. Markets have been excluded because the factors

³⁴ Representatives from the University of Bristol and the University of the West of England were amongst the interviewees for this research project, and their insights into university-led entrepreneurship-supporting interventions and the wider entrepreneurial ecosystem were taken into account as part of the thematic analysis and the iterative development of the conceptual model.

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which influence access to market usually relate to politics and economics at a national and global scale, and therefore are beyond the scope of this research. As Table 3 indicates, the proposed conceptual model includes coworking space and office space. These two institutional elements are not definitively identified in the institution-led frameworks beyond some non-specific references to physical infrastructure. Having a place from which to work is arguably of fundamental importance to entrepreneurs (this came through strongly in the thematic data analysis), hence the decision to include both coworking space and office space in the conceptual model.³⁵

The three layers which contain the entrepreneur and these institutional elements interconnect and interact in a way that helps to reproduce and recycle the resources within the entrepreneurial ecosystem, thus helping to illuminate the mechanisms that make it function. At the same time as the institutional elements interact within their respective layers, they also interact across the three layers. People and institutions are connected within and between each layer. To demonstrate how this works, the following four diagrams show where the entrepreneur and institutions are located within their respective layers, and how they connect and interrelate within and across layers. The following four steps demonstrate how the reader can construct a reimagined entrepreneurial ecosystem, as proposed in this new conceptual model.

³⁵ This particular point about office space and coworking space is discussed further in Chapter 7.

Step One

The first step (Figure 12) is to map out the main institutional elements of an entrepreneurial ecosystem, with the entrepreneur in the middle. The intention of this is to reflect the centrality of the entrepreneur to the entrepreneurial ecosystems concept. Here, we can see the institutional elements which are commonly found in an entrepreneurial ecosystem (Table 3), with the implication that the entrepreneur can potentially access any of them.

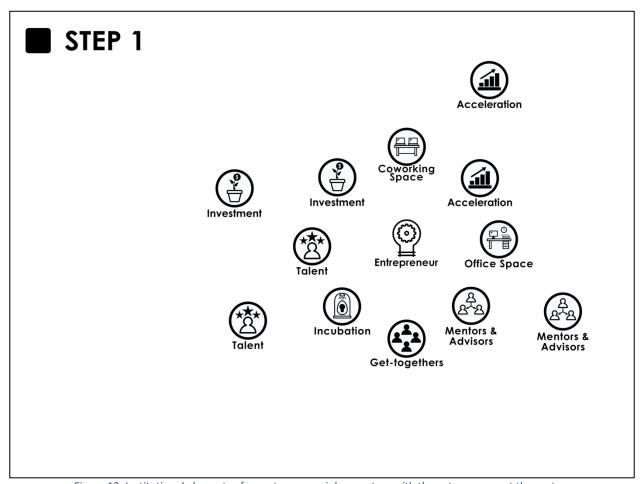


Figure 12: Institutional elements of an entrepreneurial ecosystem with the entrepreneur at the centre.

Source: author's own diagram

Step Two

The second step (Figure 13) is to show how the entrepreneur relates to the various elements in the entrepreneurial ecosystem. Figure 13 depicts how an individual entrepreneur might chose to interact with a select few of the elements in the entrepreneurial ecosystem, depending on the support or resources that he or she needs at any given point in time. The solid lines show that the entrepreneur depicted here has access to a coworking space, attends get-togethers, needs to hire talented people, is taking part in an accelerator programme, and is raising investment. So far, this looks not dissimilar to a schematic diagram such as a hub-and-spoke map. The key difference is that the entrepreneur is at the centre, surrounded by the institutional elements, whereas in the schematic diagrams, the entrepreneur is absent.

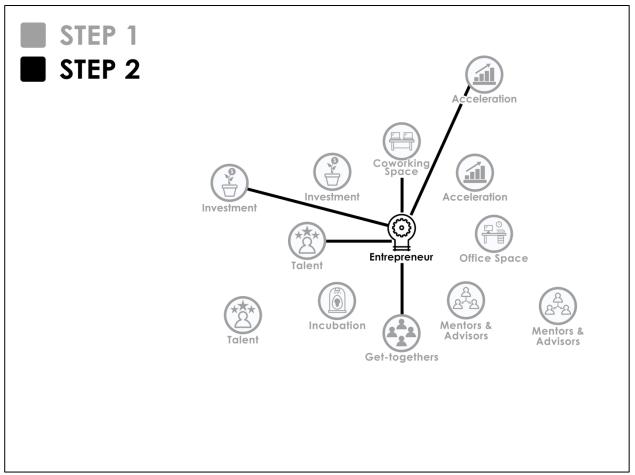


Figure 13: How an entrepreneur interacts with some of the elements of the entrepreneurial ecosystem.

Source: author's own diagram.

Step Three

The third step (Figure 14) in this process is to add geographic boundaries, indicated by dashed concentric lines. The entrepreneur is surrounded by institutional elements in the middle layer, located within the same local or regional geography as the entrepreneur. The outer layer shows the institutional elements located outside of the geographic boundaries of the entrepreneurial ecosystem. Whilst the institution 'type' might be the same in the middle and outer layers (e.g., 'Acceleration' or 'Investment') the nuance comes in the detail of where those institutions are located. We can see that although the entrepreneur is able to access a coworking space, hire talent, and attend events locally, he or she has looked outside the geographic boundaries of the entrepreneurial ecosystem to raise investment and to attend an acceleration programme.

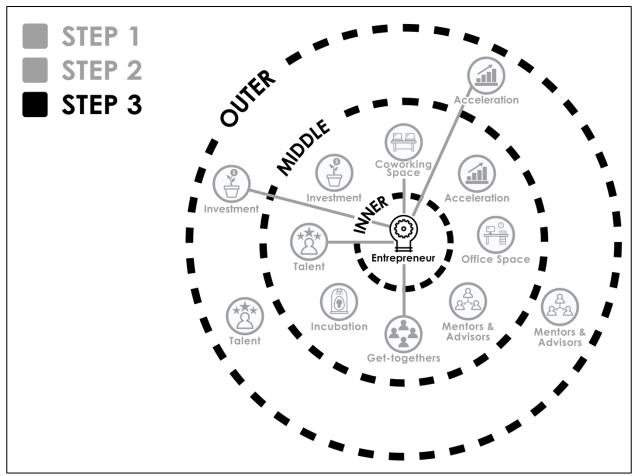


Figure 14: Adding layers to depict the geographic boundaries of the entrepreneurial ecosystem.

Source: author's own diagram.

Step Four

The fourth and final step (Figure 15) is to add dotted lines to show how some of the different institutional elements are connected *to each other*, not just to the entrepreneur. Here, we can see a link between talent, mentors and advisors, and get-togethers, and between incubation, acceleration, and coworking space. It is implied that a possible outcome of an entrepreneur attending events ('Get-together') is that they may meet a potential employee ('Talent') or be introduced to someone who can provide mentorship ('Mentors & Advisors'). A relationship is shown between 'Incubation', 'Acceleration', and 'Coworking Space' to indicate that these institutional elements have a common interest in exchanging knowledge and information.³⁶

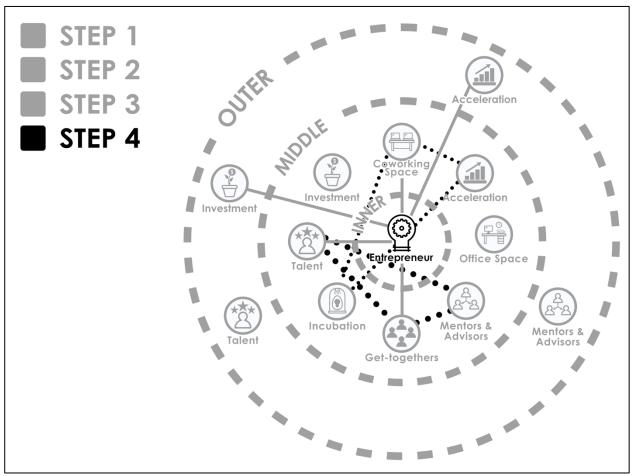


Figure 15: The relationships between some of the institutional elements within an entrepreneurial ecosystem.

Source: author's own diagram.

³⁶ These two particular examples are discussed further in Chapters 6 and 7.

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These dotted lines indicate the relationships and connections between the institutional elements. The intention here is to demonstrate the density of networks between the institutional elements themselves, not just between institutions and entrepreneurs. This is not made explicit in either the schematic diagrams, or the institution-led frameworks, where the lack of information about how institutions coalesce is one of the identified limitations of these two conceptualisations, and is a gap in our knowledge as outlined in the literature review.

Implications of this revised conceptualisation

This layered view of an entrepreneurial ecosystem emerges as a response to the limitations observed in the schematic diagrams and the institution-led frameworks. It is the key to unlocking a further exploration of the gaps in the literature that were identified in Chapter 2.

There are a number of implications that arise from the development of this conceptual model.

First, by reimagining the entrepreneurial ecosystem as a layered whole, it becomes possible to see how some of the institutional elements lie outside of the geographic boundaries of the entrepreneurial ecosystem, yet still form part of it due to their relational ties with entrepreneurs. This approach suggests that boundaries of an entrepreneurial ecosystem are relational as much as they are geographic, an idea which is further developed in Chapter 5.

Second, the revised conceptualisation makes it possible to see how the different institutional elements might interact and link together. Understanding how the elements coalesce within an entrepreneurial ecosystem requires an interrogation into the processes and people who make this happen, both of which are the subject of Chapter 6.

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Third, this proposed conceptual model places the entrepreneur at the centre of the entrepreneurial ecosystem, something which is only implicitly acknowledged in the schematic diagrams and the institution-led frameworks. By including the entrepreneur in the diagrammatic representation of the entrepreneurial ecosystem it becomes possible to show how he or she accesses the institutional elements. Indeed, in the example provided in Step Two (Figure 13), it can be seen that an entrepreneur might only ever access *some* of the institutional elements at any given point in time. This opens up a line of inquiry into the entrepreneur's experience and perspective of the entrepreneurial ecosystem, both of which are explored further Chapter 7.

In the proposed conceptual model of an entrepreneurial ecosystem, commercialisation does not happen at just one layer, as in the case of the 'middleground' proposed by Cohendet *et al.* (2010). Each layer plays a role in the commercialisation of products and services. Indeed, the very purpose of an entrepreneurial ecosystem as a whole is to support new innovations coming to market through the act of entrepreneurship. Critically, the proposed conceptual model of a three-layered entrepreneurial ecosystem relies on links between *all* layers, not just bilaterally through the middle layer. What is more, envisaging the entrepreneurial ecosystem as a concentrically-layered structure makes space for a variety of different perspectives on entrepreneurial ecosystems. This helps us to unlock the experiences of different stakeholders within the entrepreneurial ecosystem, both entrepreneurs and non-entrepreneur stakeholders.

A further implication of the proposed conceptual model is that it helps us to reach a view of the entrepreneurial ecosystem as a dynamic and flexible entity. The schematic diagrams and

institution-led frameworks are static by their very nature: the former because of the need to constantly update them depending on whether institutions are new entrants, stay active, or become dormant, and the latter because they are designed to be a heuristic tool that is generally applicable in a theoretical manner. As a result, neither diagrammatic representation has the capacity to reflect the ever-changing nature of the entrepreneurial ecosystems phenomenon. By contrast, the proposed conceptual model allows for a multitude of potential permutations of 'entrepreneur-linked-to-institution' or 'institution-linked-to-institution' relationships to be depicted, whilst retaining the clarity that the entrepreneurial ecosystem is both geographically and relationally bounded with the entrepreneur at the centre. This in turn helps us to include dynamism into how we understand and conceptualise the entrepreneurial ecosystem. It is ever-changing, constantly in a process of being shaped and reformed by the experiences and actions of entrepreneurs and institutions.

An initial evaluation of the conceptual model

While there is no step-by-step blueprint that a researcher can follow to undertake the process of theorising, Cornelissen (2017) identifies three distinct styles: proposition-based, narrative-based, and typology-based, and describes some of the challenges that a researcher might encounter in each style. The development of the conceptual model that is presented in this chapter followed a narrative-based style, which Cornelissen defines as "[specifying] a process model that lays out a set of mechanisms explaining events and outcomes." A process model is characterised by showing the processes and relationships that are important for the particular mechanism under investigation. Cornelissen (2017) highlights two potential problems that can occur when theorising using a narrative-based style. The first is that the proposed model is too

closely linked to an empirical case study, resulting in a model which is overly specific. The second problem is the opposite: that the proposed model is too generalised and lacks detail about the specific trigger points that lead to the processes described. The conceptual model presented in this chapter aims to be both *generally* useful as a tool for understanding an entrepreneurial ecosystem, and also aspires to be adaptable to *specific* entrepreneurial ecosystems. The true test of the model's applicability would come from how well it is suited to unpacking other entrepreneurial ecosystems in different contexts.

It is worth considering how the proposed conceptual model matches up to the six validation criteria proposed by Weick (1989), although of course, a less biased evaluation should come from someone other than the researcher-theorist herself. Ideally, the conceptual model would be evaluated through its application to another entrepreneurial ecosystem by another researcher, but in the absence of this for now, here is how I evaluate the conceptual model that I developed:

That's interesting: Weick (1989) defines this emotional reaction as occurring when a theory disconfirms previous assumptions. In the process of developing the conceptual model, my own a priori assumptions about the mechanisms of an entrepreneurial ecosystem were disconfirmed, suggesting that the model meets this particular criterion. As will be described in the methodology chapter (Chapter 4), this process was uncomfortable and required me to shed preconceived normative ideas about how an entrepreneurial ecosystem functions.

That's obvious: This implies that the proposed theory, once explained and understood, should be so obvious that it essentially becomes "unnoticed and unstated." This is a bold claim, and one which I would be reluctant to make without further testing and refinement of the model. However, from my own point of view, the way that I see an entrepreneurial ecosystem is exactly as the model describes; in other words, it is obvious to me as the theorist.

That's connected: Cornelissen (2006) interprets this criterion as relating to whether or not the proposed theory is grounded. In other words, a new and unexpected connection can lead to a new set of implications. With regards to the proposed conceptual model, there are a number of new implications that arise, as described in the preceding section, and it is hoped that future research can use this new lens in order to unlock a different part or aspect of the entrepreneurial ecosystem, thus fulfilling the criterion of 'being connected'.

That's believable: The conceptual model is narrative-based, as described above. For Weick (1989, p. 527), a narrative or story needs to convince the reader, "not because [it is] truthful, but because [it is] likeable, coherent, [and] believable." This chapter has presented the conceptual model as a theoretical construct; the narrative about how this conceptual model works in a real-life context comes in the subsequent empirical chapters. This is where the story should come to life for the reader, and thus make the conceptual model believable.

That's beautiful: Weick (1989) draws on the discipline of mathematics to provide an example of an aesthetically pleasing theoretical model. As for the second criterion ("that's obvious"), it would be bold to claim that the proposed conceptual model is beautiful. I would hope that it

has a certain elegance about it, but its beauty for me really comes in whether or not it is more widely applicable, and this can only come about through future research.

That's real: This final validation criterion relates to the degree to which the theory is representative of the real world. Given that the conceptual model aims to provide an explanatory tool with which we can better understand an entrepreneurial ecosystem in the 'real world', it is hoped that this degree of representation is clear and understood.

The evaluation in this sub-section has provided an initial critical assessment of the proposed conceptual model. Its strengths lie predominantly in how it responds to the weaknesses identified in the institution-led frameworks and the schematic diagrams, which were evaluated to be not suitable as heuristic tools to respond in full to the research questions. The strength of the conceptual model will be further demonstrated through its employment in the empirical chapters of this thesis. Any potential weaknesses in the conceptual model lie in how it might subsequently be employed to analyse other entrepreneurial ecosystems: there may be areas that are lacking in detail, or there may be aspects of it which become redundant, depending on the context of the entrepreneurial ecosystem under investigation.

3.5 Conclusion

The purpose of this chapter was to dig deeper into how we understand and conceptualise the entrepreneurial ecosystem as an "abstracted idea" (Wurth, Stam and Spigel, 2021). In the literature review, it was established that there are three stylised facts that inform our

understanding of the entrepreneurial ecosystems concept: it is a geographic phenomenon, comprised of institutions, and centring the entrepreneur. This chapter explored the two dominant ways in which an entrepreneurial ecosystem has been conceptualised, taking these three principles as a starting point. The first way in which an entrepreneurial ecosystem was shown to have been conceptualised was via the institution-led frameworks, developed by academics as heuristic tools to understand the concept in theory, based on empirical fieldwork. The second conceptualisation presented was the entrepreneurial ecosystem as a schematic diagram, primarily developed by practitioners and policymakers as a navigational aid for entrepreneurs and other stakeholders. Beyond their respective purposes as heuristic or navigational tools, it was shown that the explanatory power of institution-led frameworks and schematic diagrams is limited when approaching the three areas that are the focus of this thesis: the geographic and relational boundaries of the entrepreneurial ecosystem; what processes and people help the institutional elements to coalesce; and the lived experiences and perspectives of entrepreneurs.

A revised conceptual model of an entrepreneurial ecosystem was proposed that enables a more nuanced understanding of the phenomenon. This model allows us to deconstruct the concept to its three constituent layers: an inner layer comprising the entrepreneurs; a middle layer comprising the supporting institutions and related actors within the geographic boundaries of the entrepreneurial ecosystem; and an outer layer which reflects institutions and actors located outside the geographic boundaries but who might play a role inside (or within) the entrepreneurial ecosystem. By visualising the entrepreneurial ecosystem as a layered 'whole', three new ways of approaching the concept are opened up. First, it becomes possible

to examine the relative importance of relational links within and across geographic boundaries. Second, it starts to unlock our understanding of how the institutional elements coalesce via the institution-to-institution relational links. Third, it allows for a more nuanced appreciation of the entrepreneur experience: acknowledging that each entrepreneur will interact with different combinations of institutional elements based both geographically inside and outside the entrepreneurial ecosystem. This chapter has also described the process undertaken to develop the conceptual model, and has provided an initial evaluation of it using Weick's (1989) criteria.

The conceptual model is referred to in the three subsequent empirical chapters in order to more clearly and holistically explain the findings presented. Through its application to understanding an entrepreneurial ecosystem in practice, it is hoped that the conceptual model is strengthened theoretically. The model was developed inductively, emerging from an in-depth reading of the literature combined with an early analysis of the fieldwork, informed by the researcher's practical experience, and guided by her intuition. Thus, the conceptual model aims to unite theory and practice in order to unlock our understanding of the mechanisms within entrepreneurial ecosystems. It is hoped that future research can draw upon this model to test its wider applicability in entrepreneurial ecosystems in other places and contexts.

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CHAPTER 4. Research philosophy, methodology, and methods

4.1 Introduction

This chapter is dedicated to presenting the methodology and methods which underpin the empirical research. The impetus for the research project came from my own professional experience working with entrepreneurs and my interest in entrepreneurial ecosystems and their role in regional economic development. Mason (2018) writes that full and imaginative qualitative research stems from the researcher's fascination with a particular intellectual puzzle. Through an ongoing and iterative process of reading and reflecting upon the literature, I was able to put aside normative ways of thinking and critically engage with the topic at hand. This process of exploration and discovery, which was uncomfortable at times, led me to develop the overarching aim of the research, which is to understand the mechanisms of entrepreneurial ecosystems. This was my particular intellectual puzzle to solve.

In developing the research questions, I was guided by practice and theory. My first-hand experience of various entrepreneurial ecosystems around the world had shown me some of the general and context-specific challenges faced by practitioners, and had highlighted the disconnect between policy and practice in relation to interventions to support entrepreneurs and the wider entrepreneurial ecosystem. In parallel, as my reading in the subject matter deepened, I became increasingly aware that the literature was moving beyond describing the attributes of 'successful' entrepreneurial ecosystems, and towards an increasing desire to

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understand the causal mechanisms. Mason (2018, p. 14) describes research questions as "the operational expression of [the] intellectual puzzle." For this thesis, with its aim to understand the mechanisms of entrepreneurial ecosystems, I developed the following three research questions:

RQ1: What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?

RQ2: What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?

RQ3: How do entrepreneurs experience and perceive the entrepreneurial ecosystem?

The structure of this chapter is as follows: I open in section 4.2 by introducing my research philosophy and approach, and by outlining my own ontological and epistemological standpoints. This opening section also presents a reflection on my positionality as a researcher, and how I occupied both insider and outsider status when conducting the fieldwork. This section closes with a discussion about ethical considerations. Section 4.3 moves on to describe the methodology and research design for the project. Here, I discuss the merits of qualitative research in relation to this project and present the rationale for conducting a case study. I also describe the ethnographic approach taken throughout the fieldwork and describe the method of semi-structured interviews as a way to gather data. Section 4.4 describes the process and practicalities of conducting the research, including a rationale for why Bristol was chosen as the fieldwork site. In this section I present my approach to identifying and accessing participants, I show how I prepared for interviews, and I describe the practicalities of conducting the interviews. Section 4.5 focusses on the data analysis. Here, I cover the mechanics of coding the

interviews and the process I went through to conduct a thematic analysis of the data. A brief conclusion is presented in Section 4.6.

4.2 Research philosophy and approach

Spigel, Kitagawa and Mason (2020) highlight that one of the challenges of research into entrepreneurial ecosystems is that it falls within two dominant research traditions: that of economic and management theory, and that of economic geography. The former seeks to quantify existing social phenomena into an explanatory model that can be used in different contexts, and the latter explores complex systems within different contexts and situations. Within management research itself, there is a plurality of diverse theoretical and methodological influences from different disciplines (Saunders, Lewis and Thornhill, 2016), and entrepreneurship similarly benefits (or suffers) from a multitude of research approaches (Gartner, 2007).

This section presents the philosophical underpinnings of the research project, outlining the ontological and epistemological position which provides a foundation for the ensuing qualitative study. For any research project, the researcher's assumptions and principles and the impact of these on the project in question need to be made explicit (Gartner, 2007; Bryman, 2012; Mason, 2018). Understanding the researcher's own ontological reality and epistemological standpoint, as well as their philosophical perspective, is an essential starting point for conducting any research project. Indeed, a failure to understand the principles and assumptions that one inherently holds as an individual can compromise the validity of research

(Moon and Blackman, 2014). In the following paragraphs, I outline my own ontological and epistemological positions, and reflect on how these gave shape to the qualitative data collection and thematic analysis which followed.

Ontological considerations

Ontology is concerned with the "nature, character and essence of things in the social world" (Mason, 2018, p. 4) and how reality is perceived (Petty, Thomson and Stew, 2012). Ontology asks us to reflect whether observable social phenomena are separate and outside of our lives, or whether they are produced and reproduced by social interactions (Bryman, 2012). A researcher's ontological perspectives on reality will inform what can be known or discovered about reality through research. Establishing one's ontological perspective can be done through a process of deduction: by establishing what the alternative perspectives are, one's own ontological perspective becomes clear (Mason, 2018).

Ontological perspectives can broadly be divided into two approaches: realism and constructionism. Realism (also referred to as objectivism) is the belief that social phenomena have a similar status to physical phenomena, i.e., they exist independently of social actors. The truth about a phenomenon can then be objectively discovered using measurements (often quantitative). A realist ontological view would not be appropriate for this research: every entrepreneurial ecosystem is different and context-dependent, and as such it is necessary to treat each one empirically on a case-by-case basis. Whilst the institution-led frameworks outlined in the literature review highlight common elements between entrepreneurial ecosystems, the argument running through the literature review is that this generic approach

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lacks nuance and specificity because it fails to consider the perspective of the nonentrepreneur stakeholders within those institutional frameworks of the entrepreneurial ecosystem.

Constructionism is the ontological view that multiple perspectives and beliefs about reality exist; indeed, that reality is created by how different social actors view the world. Truth is thus mutable: it varies from person to person and can evolve over time depending on our experiences. Within a constructionism perspective, reality is context-bound: what is real or true for one person in one place at any given point in time is not generalisable to other contexts. A constructionist ontology is an appropriate perspective for this research project as it generates insights into the entrepreneurial ecosystem and its processes. A constructionist perspective enables an investigation into how the social world (the entrepreneurial ecosystem) is constructed by individuals (the entrepreneurs and non-entrepreneur stakeholders within an ecosystem).

Epistemological considerations

A researcher's epistemological perspective is related to their ontological perspective and describes the relationship that the researcher has with the research. Epistemology is a philosophical approach that informs how knowledge is generated (Mason, 2018) and how we communicate knowledge to others (Burrell and Morgan, 1979). A researcher's epistemological assumptions influence the methods used to collect (or generate) data about the social world.

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A positivist epistemology originates in the view that social science research should emulate natural science research, with an emphasis on researcher objectivity over subjectivity; inductive methodologies to gather facts; and the generation of hypotheses that can be tested in a value-free environment (Bryman, 2012). With a positivist stance, the researcher takes an etic approach, remaining as a passive outsider without influencing the data generated. A positivist epistemology is not appropriate for this research project as it does not accommodate the influence of human actors within a social environment.

Interpretivism is the contrasting epistemological view to positivism. This epistemological viewpoint posits that the social phenomena under investigation in social sciences research is fundamentally different to the research subjects of the natural sciences, and therefore a different philosophy and approach is required (Bryman, 2012). The researcher takes an emic approach, aiming to get as close as possible to the research subjects in order to discover what they think. With an interpretivist perspective, the biases of the researcher are acknowledged as part of the research.

The constructionist ontological perspective for this research holds that the aspect of the social world under investigation (an entrepreneurial ecosystem) is comprised of social actors and their beliefs and practices. Epistemologically it therefore follows that an appropriate perspective is interpretivist: i.e., that knowledge about this social world (the entrepreneurial ecosystem) can be generated by asking questions of those social actors (entrepreneurs and other ecosystem stakeholders) about their beliefs and practices. The researcher's task is to interpret those meanings and create a new and rich understanding of the entrepreneurial

ecosystem. An interpretivist epistemology is unequivocally subjectivist: the researcher's interpretation of data, and her own values and beliefs, form part of the research process (Saunders, Lewis and Thornhill, 2016).

Positionality and reflexivity

In recognising that my own ontological and epistemological leanings are constructionist and interpretivist, I had to ensure that I was reflexive in my approach to designing and conducting the research, and that I was aware of my own subjective biases. Within management research, Johnson and Duperley (2003) recommend three types of reflexivity: methodological, epistemic, and hyper-reflexive. Methodological reflexivity is where the researcher reflects upon and evaluates the methodology as the research process unfolds. Epistemic reflexivity requires the researcher to examine biases and be open to alternate constructions of reality. This epistemic reflexivity required me to be aware of how my previous personal and professional experience of entrepreneurial ecosystems might influence the research design, and to employ strategies to mitigate against that (detailed in the following paragraphs). Hyper-reflexivity involves questioning the ways in which knowledge is produced from the data generated. My own positionality within the research was that I was implicated in the fieldwork and in the construction of knowledge, so it was important for me to have a high degree of reflexivity (Pink, 2013), and to be aware of different perspectives, experience, values, and disciplinary biases (Mason, 2018).

I made a conscious choice to adopt an overt role throughout the research project. This entailed obtaining access to a site and to participants. Adler and Adler (1987) argue that conducting

fieldwork requires the social researcher to assume membership of the group they are studying, in other words, to become an insider. Breen (2007) suggests that a now-outmoded view was that the researcher was either an insider or an outsider within anthropological or social research, and that these two positions were dichotomous. A more nuanced approach is to consider that the membership status of the researcher can be considered on a spectrum of insider and outsider (Breen, 2007). Insider research is carried out within a social group of which the researcher is already a member, whereas outsider research is undertaken from a position whereby the researcher does not belong to or have in-depth knowledge of the group under investigation (Merriam et al., 2001; Greene, 2014; Milligan, 2016). There are strengths and weaknesses inherent in both positions. At first glance, being an insider would appear to be the most advantageous position for a researcher engaged in any ethnographic research, as it facilitates access to participants, and grants the researcher with an innate understanding of the language, context, and references. However, Merriam et al. (2001, p. 411) argue that being an outsider can bring a "curiosity with the unfamiliar, the ability to ask taboo questions, and [the advantage of] being seen as non-aligned with subgroups thus often getting more information", all of which can be considered to be positive and useful attributes when conducting research.

Given the impetus of the research and my own positionality as a researcher with a professional background in the subject matter, it would have been impossible to conduct this research project as an objective 'outsider'. Not only would this have been contrary to my philosophical, ontological, and epistemological perspective, but it would have been disingenuous to participants and dishonest to the research process to pretend to assume outsider status. This being said, it was important to navigate my quasi-insider status carefully (detailed in the

following paragraph as occupying 'the space between'). The potential risk of having insider status arises when it comes to interpretation of the data: a researcher's perspective might be swayed by personal experience, or assumptions might be made based on other perceived similarities (Dwyer and Buckle, 2009; Greene, 2014). This makes it all the more important to have a full awareness of one's own research philosophy and personal biases. Related to this, Guillemin and Gillam (2004) emphasise the importance of exercising 'ethical mindfulness and reflexivity' throughout the research, by which they mean being mindful of the context of the research and needs of participants, and reflecting on the researcher's own behaviour throughout the research.

Over the course of the fieldwork, it transpired that in my role as researcher I occupied "the space between" (Dwyer and Buckle, 2009): occupying the position of both insider and outsider when talking to members of the entrepreneurial ecosystem community in Bristol. My professional experience provided a degree of 'insider status', in that interviewees felt at ease speaking to someone who had kindred interests and a comparable professional background. There was a familiarity between myself as interviewer and the interviewees in the use of certain terminology, similar experiences (albeit in different geographies), and shared acquaintances and connections (Asselin, 2003).³⁷ All of this added up to a sense of commonality and empathy, and granted me easier access to and acceptance by participants. Insider research typically leads to participants who are more open with the researcher, and thus can add a greater depth to the research (Dwyer and Buckle, 2009). My 'outsider status' was afforded on

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³⁷ In the sub-section on 'participant sampling', section 4.4, I discuss the strategies I employed to mitigate against the potential for sampling bias that might have arisen due to shared acquaintances and connections.

the basis that I am not from Bristol, have never worked there, and do not live there or have any direct professional ties in the region. The benefit of this was that interviewees felt able to be open and honest, especially when discussing challenges or when expressing potentially negative viewpoints. Given my own position as being 'outside' the Bristol entrepreneurial ecosystem (both geographically and relationally), there was no risk of anything being divulged inadvertently or otherwise. Holding both insider and outsider status allowed me to access a broad range of perspectives whilst also retaining a degree of apartness from my interviewees.

Dwyer and Buckle (2009) express the benefits of this 'between' status by asserting that, "holding membership in a group does not denote complete sameness within that group.

Likewise, not being a member of a group does not denote complete difference" (Dwyer and Buckle, 2009, p. 60).

Ethical considerations

In order to conduct the fieldwork, it was necessary to obtain ethical approval from the University of Sheffield. This was granted on 22nd January 2019, and the fieldwork started in February 2019. To obtain ethical approval, I needed to assess whether any harm might come to participants; this was assessed to be a low to non-existent risk. I also needed to consider my own personal safety as a researcher. I minimised personal risks by ensuring that interviews would always take place during standard working hours of 9am to 5pm Monday to Friday, and in a formal or public setting (i.e., a bookable meeting room or office, or a public café or coworking space).

All interviewees signed the Consent Forms and were given Participant Information Sheets ahead of the interview (see Appendices 3 and 4). (This is discussed in more detail in 'Interview preparation' in section 4.4.) Participants were informed that they would only be referred to by a pseudonym in the final write-up, and that any identifying data would be removed.

Participants were also informed that the names of businesses and organisations would be anonymised, for example, 'Accelerator A' or 'Coworking B'. Participants were told that job roles would only be referred to in the final write-up if significant to the topic at hand, and then would be generalised as far as possible, for instance 'Coworking Space Manager'. Risks of identification were discussed with participants, given the fairly close-knit nature of the entrepreneurial ecosystem in Bristol (see 'Interview preparation' in section 4.4 for more detail).

All the participants agreed to proceed with the interviews and all signed Consent Forms.

Participants were assured that their responses would be securely stored and only used for academic purposes in accordance with the University of Sheffield's protocols. Personal information for this project has been kept secure at all times.

Obtaining ethical approval from the University of Sheffield was a one-off event, whereas maintaining an awareness of ethics throughout the research design and fieldwork process was an ongoing concern. Guillemin and Gillam (2004) distinguish the former as 'procedural ethics' and the latter as 'ethics in practice'. Ethics has a central role to play within social science research (Flick, 2011) because the researcher is gathering or generating data alongside fellow human beings. Indeed, the very basis of the eventual thematic analysis and findings comes directly from participants voluntarily taking part in the research. This co-constructed knowledge can only come about if the researcher is overt in her approach and trusted by participants, and

if the research is conducted with participants' informed consent. Atkinson (2009) refers to this as a 'contract' between researcher and participants that establishes the rights and obligations of both parties at the outset of the research project. The topic of informed consent is covered in more depth in 'Interview preparation' in section 4.4.

4.3 Methodology and research design

Having established the ontology (an understanding of existence and the nature of reality) and epistemology (an understanding of knowledge and what we can know about the world), this section of the chapter moves on to consider the methodology (a system of methods and how we can investigate the world). Methodology describes the "theory and analysis of how research ... should proceed" (Harding, 1987, p. 20). As such, methodology brings together philosophy, theory, practicalities, methods, and ethics. Developing an appropriate research design involves looking at the particular intellectual puzzle through the lens of the researcher's own ontology and epistemology. The intellectual puzzle that emerged through my own practical experience combined with a critical exploration of the literature was the desire to understand the mechanisms of an entrepreneurial ecosystem.

Ontologically, my belief is that an entrepreneurial ecosystem is a socially constructed 'reality' that is context-bound and constructed by entrepreneurs and non-entrepreneur stakeholders. Epistemologically, I hold the view that knowledge about the entrepreneurial ecosystem can be generated by asking questions of those social actors to uncover their practices and views, and by situating myself as researcher within their social world. Therefore, it follows that an

inductive approach to the research would be most appropriate: induction enables the researcher to enter into the field without a preconceived theory to test (deduction), and instead build up theories based on observations and findings. This section of the chapter describes the methodology adopted and the research design which ensued.

Qualitative research methods

The field of entrepreneurial ecosystems research encompasses qualitative and quantitative methodological approaches, and one of the challenges is how insights from both approaches can be brought together to build a shared vision of how entrepreneurial ecosystems operate (Spigel, Kitagawa and Mason, 2020). Quantitative methodologies have focussed predominantly on measuring the strength of the entrepreneurial ecosystem thus enabling the creation of various 'ecosystem rankings' such as those produced by Startup Blink (2022) and Startup Genome (2021). Within the broader field of entrepreneurship, quantitative approaches are also at the heart of the Global Entrepreneurship Monitor annual reports, which provide insights into topics such as rates of business births and deaths across different countries. While quantitative approaches have merit for the purposes of this particular type of policy-led report, they do not help to illuminate the interactions between different actors and institutions that comprise an entrepreneurial ecosystem (Feld and Hathaway, 2020). Interactions are altogether harder to measure concretely: unlike tangible and countable metrics such as the number of businesses in a region, interactions that occur through the existence and density of networks

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³⁸ See: https://www.gemconsortium.org/.

are more elusive and more difficult to count.³⁹ The risk of a quantitative approach in this area is that "easy and convenient things get measured rather than the things that matter" (Spigel, Kitagawa and Mason, 2020).

It is feasible that a researcher operating within a different ontological and epistemological paradigm might choose quantitative methods in their approach to uncover the mechanisms of entrepreneurial ecosystems. However, within my own particular philosophical paradigm, qualitative research methods provide the methodological rigour to respond to the research questions whilst allowing for nuance and interpretation. Moreover, qualitative methods allow for a more "nuanced understanding" of the interactions that occur between entrepreneurs and other stakeholders within the entrepreneurial ecosystem (Spigel, 2017, p. 67). Qualitative methods in this field of research enable the researcher to understand entrepreneurship as a complex and dynamic social phenomenon, one which is impacted on by the actions of stakeholders who are active within it. Qualitative methods also enable a closer examination of the "socially constructed nature of the entrepreneurship process" (Spigel, 2017, p. 57).

Qualitative research is generally epistemologically interpretivist in that it aims to reach an understanding of the world through an interpretation of people's experiences, accounts, and actions (Mason, 2018). With a deliberately local focus, qualitative research does not aim to make broad assumptions, rather it provides nuance to the complexity of events and processes

³⁹ That being said, there are new techniques emerging that get us closer to being able to quantify interactions, see for example Spigel (2022) who uses datasets from LinkedIn, and Rocha, Brown and Mawson (2021) who use datasets from meetup.com.

within a particular aspect of the social world (Bryman, 2012). A qualitative methodology means that the researcher generates data in a more "epistemologically open" way, allowing for the researcher to be seen as "engaged in constructing knowledge about the world" alongside her participants (Mason, 2018, p. 21). Qualitative methods enable the researcher to prioritise the individual's lived experience, whilst also taking account of the broader context of the social world in which he or she operates (Marshall and Rossman, 2006). Within the broader context of management as a discipline, Cornelissen (2017) argues that theory building based on qualitative research has intrinsic value in and of itself. In particular, Cornelissen (2017) makes the case that 'thick descriptions' (Geertz, 1973) based on ethnographic and interpretative approaches, and pattern descriptions based on case studies, can help the researcher provide insights into 'why' questions and focus more on identifying causality. Case study research as a qualitative method is the focus of the following sub-section.

Conducting a case study

Much of the empirical work that has generated the widely accepted institution-led frameworks for understanding entrepreneurial ecosystems was based on case studies, as described in Chapter 2 (see section 2.4, pages 90-92, for a treatment of the methodological approaches of these case studies). Investigation of an entrepreneurial ecosystem through examination of a particular case emphasises the context-dependent nature of the phenomenon. Case study research focusses on understanding a phenomenon within a specific setting in order to provide further description and allow the researcher to generate theories (Eisenhardt, 1989). Whilst there are some critiques of taking a case study approach (for instance, Malecki (2018) points to their incompleteness compared to longitudinal studies) they are a dominant approach within

entrepreneurial ecosystems research (Wurth, Stam and Spigel, 2021). This is likely due to the strengths in this approach of observing actors in situ, and the nuanced understanding that comes from observing interactions within a particular context to try and understand how and why a social phenomenon is the way it is. These advantages of case study research were particularly relevant for this research project with its aim to understand the mechanisms of entrepreneurial ecosystems. It was clear that by conducting a case study in Bristol, I would be afforded the opportunity to uncover the dynamics of the entrepreneurial ecosystem through a close observation of actors living and working in their usual environment. (The rationale for choosing Bristol as the site of case study research is outlined in section 4.4 of this chapter.)

The overarching aim of the research project is to respond to a 'why' question: with a focus on understanding the mechanisms of entrepreneurial ecosystems, the hope is that this leads to more knowledge about why rates of entrepreneurship are more prevalent in some areas than others. The specific research questions that this research project sets out to address (outlined in the introduction to this chapter, page 137) are 'what' and 'how' questions. To this end, investigating the nature of the social phenomenon at hand via a case study is appropriate: a case study is the empirical study of a contemporary situation in a natural setting, where behaviours cannot be manipulated, and the focus is 'how' and 'why' (Yin, 2018). One of the advantages of conducting case study research is that the researcher is afforded a greater depth of access into the question at hand, generating insights which can lead to rich descriptions and contribute to theory development (Saunders, Lewis and Thornhill, 2016).

A key factor in designing case study research is establishing the boundaries of what is under investigation (Flyvbjerg, 2011). The boundaries of a case study can refer to the time period, the geographic area, or who is included within the community in question (Yin, 2018). I will address these three areas in turn. First, for this research project, the time boundaries were contemporaneous to the time period in which the interviews took place, i.e., the year 2019. In the interviews, I asked questions relating to the (then) present-day experiences of individuals. There was some discussion over how things had changed since an individual started in a particular role, or since a business was founded, but this was not limited to a specific fixed date in the past as it would vary from person to person. Second, it was clear given the subject matter at hand that the geographic area would need to be a city and region where entrepreneurship was prevalent. Although entrepreneurial ecosystems in rural and peripheral areas have been subject to some investigation (Roundy, 2017a; Muñoz and Kimmitt, 2019), the dominant approach in the literature is towards analysing it as an urban phenomenon. I chose to keep the geographic boundaries fairly flexible, establishing it to be 'Bristol and its environs', rather than aligning the geographic boundary to specific political or geographic areas. Third, Yin (2018) suggests that the 'who to include' boundary exists on a spectrum from 'more concrete', such as individuals or organisations, to 'less concrete', for example communities and relationships. In this instance, the boundary of who to include within the entrepreneurial ecosystem is less concrete, as it focusses on a community of entrepreneurs and non-entrepreneur stakeholders all operating within the entrepreneurship space. At the outset of the research project, it was important to have some idea of who the key individuals in the Bristol entrepreneurial ecosystem might be, in order to guide the initial exploratory conversations that I undertook.

How those individuals were identified and selected is discussed further in the section 4.4, where I discuss the approach to participant sampling.

Taking an ethnographic approach

Qualitative research methods can include ethnographies, participant observation, interviewing, focus groups, and discourse analysis to name just a few methodological approaches (Bryman, 2012). Driven by my motivation to understand the beliefs and practices of social actors within an entrepreneurial ecosystem and a desire to immerse myself in the research setting, I decided that an ethnographic approach would be most appropriate. It is important to note, however, that this research project is not an ethnography per se. An ethnography, originating from the discipline of anthropology, refers to both the method undertaken during the research and the written product of that research (Bryman, 2012). It usually involves the researcher spending a lengthy period of time living amongst the subjects of the research, immersing herself in their daily lives in the fullest sense possible. An ethnography can also be distinguished by its emphasis on understanding and interpreting the cultural behaviours and setting of the social actors (Geertz, 1973). A further relevant definition is that an ethnography "represents the social reality of others through the analysis of one's own experience in the world of these others" (Van Maanen, 1988, p. ix). From this we can understand that an ethnography places a strong emphasis on the transformative experience that the researcher undergoes whilst conducting his or her research.

By contrast, an *ethnographic approach* entails taking the principles of ethnography as a "broad prescription for the research" (Wolcott, 1990, p. 63) and employing 'ethnographic techniques'

such as conducting interviews and paying close attention to natural conversations. An ethnographic approach adopts many of the practices of conducting an ethnography, namely, participant observation and immersing oneself in the field, albeit not in such an intensive way or over such a long period. An ethnographic approach requires an insider perspective through immersion within a community. Observation occurs in a natural setting, and data collection happens over time (Walliman, 2016). In practical terms, the ethnographic approach that I took was through repeat visits to the site where I was able to observe the actors in situ, and elicit meaning from interpreting their beliefs and practices (Bryman, 2012). This specific ethnographic technique is referred to as participant observation.

With regards to participant observation, Saunders *et al.* (2016) identify four possible roles that the researcher might take: complete participant (the researcher becomes a full member without revealing her identity as a researcher); complete observer (the researcher does not become a full member, nor does she reveal her identity as a researcher); observer-asparticipant (the researcher's role and purpose is revealed, and she predominantly observes rather than directly participates); and participant-as-observer (the researcher's role and purpose is revealed, and she directly participates as a full member). For this research project, I chose to take a role as 'observer-as-participant'. This is consistent with occupying 'the space between' insider and outsider research, as described in section 4.2. The research took place overtly, and my identity and purpose were known to all participants. I attended events and occupied the same space as the participants, socialising and conversing with them, but remained predominantly as an observer as I was not a full member of the community (the Bristol entrepreneurial ecosystem).

Semi-structured interviews

Interviews, in particular semi-structured interviews, are a widely employed method in qualitative research, in particular in ethnographic research (Bryman, 2012). Semi-structured interviews provide the researcher with a degree of structure to ensure that all pertinent topics are covered, whilst allowing for the flexibility to explore different topics as and when they are mentioned by the participants. In other words they are 'a conversation with a purpose' (Berg and Lune, 2012), whereby the purpose is to gather information that will help the researcher to answer their research question(s). Interviews are particularly well-suited to conducting research which is epistemologically interpretivist. The interview is not meant to be representative, but aims to "understand how individual people experience and make sense of their own lives" (Valentine, 1997, p. 111).

4.4 Conducting the research in Bristol

As mentioned in the previous section, qualitative research into entrepreneurial ecosystems has been conducted by examining case studies based in specific geographies, for example Boulder, Colorado (Neck *et al.*, 2004; Feld, 2012), Waterloo and Calgary in Canada (Spigel, 2017), and St Louis, Missouri (Motoyama, Watkins and Knowlton, 2014). This approach has enabled academics to identify features that are "standard parts of the entrepreneurship phenomena" (Spigel, 2017, p. 57), i.e., the elements described in the institution-led frameworks in the literature review, such as the systemic conditions of talent, finance, and networks, and the framework conditions of policy, culture, and infrastructure. The intention of this research project is to build on previous empirical studies and also to extend the explanatory power of

the institution-led frameworks by exploring the mechanisms of the entrepreneurial ecosystem. Every entrepreneurial ecosystem is context-bound, so although different ecosystems might have similar components (e.g., the presence of a university or availability of finance), these components differ from place to place.

Selection of site for the research

The research necessitated conducting fieldwork in a place where an entrepreneurial ecosystem exists. It is very difficult to determine the 'presence', 'visibility', or 'strength' of an ecosystem in an academically rigorous way (Spigel, 2017). Recent annual reports from Tech Nation (2017) and from Centre for Cities (2018) both consider the business birth rates across different UK cities to be an indicator of the strength of an ecosystem, i.e., the rates at which individuals start a business. But 'starting a business' does not speak to the nuances of entrepreneurship: an entrepreneur might be working on an idea for a long time ahead of formally registering as a company, or indeed might be acting within a larger organisation on a potential spin-out which is unlikely to be recorded as the birth of a new company. Tech Nation (2017) analysed data from meetup.com, inferring that the more meetups per city the stronger the ecosystem, but this does not account for informal meetups, or get-togethers that are organised via other online events platforms. The ScaleUp Institute (2014) analysed the availability of business support for scaleups in the UK (public sector and private sector), but this is just one element of an entrepreneurial ecosystem, and moreover not every company within an entrepreneurial ecosystem will necessarily become a scaleup. Given that there is no all-encompassing quantitative way to determine whether an ecosystem exists or not, I based the site selection

for this research project on Marshall and Rossman's (2006, p. 62) five criteria for conducting ethnographic work, as summarised in Table 4.

TABLE 4: FIVE CRITERIA FOR CONDUCTING ETHNOGRAPHIC WORK

- 1. Entry is possible;
- 2. It is highly probable that a rich mix of people, processes, programmes, interactions, and structures of interest are present;
- 3. The researcher is able to build trusting relationships with participants;
- 4. The study can be conducted ethically;
- 5. Data credibility and quality can be assured.

(Marshall and Rossman, 2006, p. 62)

Source: Table devised by the author

Taking the first three elements in turn, it is possible to demonstrate why Bristol made for a good case study for this research project. First, entry is possible. Accessing the entrepreneurial community was made possible in part due to pre-existing professional networks which lowered the barriers to entry and made it easier for me to reach the entrepreneurs and stakeholders who I wished to interview. Second, I knew that there would be a 'rich mix' (Marshall and Rossman, 2006) of people, processes, programmes, interactions, and structures that were relevant for a study of the Bristol entrepreneurial ecosystem. This was established by reading relevant grey literature (Tech City UK, 2017; *Annual Scaleup Review 2018*, 2018; Tech Nation, 2018) and referring to websites such as Centre for Cities and Business Leader. I knew for instance that Bristol had the main components of an entrepreneurial ecosystem as enumerated in the institution-led frameworks (see Table 5, page 159). Third, I knew that I would be able to

⁴⁰ Sources: https://www.centreforcities.org/ and https://www.businessleader.co.uk/bristol-is-best-for-uk-start-up-survival-rates-but-london-struggles/. Accessed 16 February 2020.

build trusting relationships with participants; due to my professional networks, I had previously established relationships with two key 'gatekeeper' individuals within the Bristol entrepreneurial ecosystem. As such, they were able to facilitate entry and introductions to relevant people and places. These warm introductions were a helpful starting point in terms of building trusting relationships with participants, although it was also important to ensure that my sample was not overly influenced by relying entirely on introductions made by the two gatekeepers (how I mitigated against potential bias is discussed below in the sub-section on 'participant sampling', in section 4.4).

In order to verify that the site did indeed have a 'rich mix' of people and institutions, I carried out an exercise to identify the main elements of an entrepreneurial ecosystem in Bristol. In the literature review, I included a table which compared and contrasted the six institution-led frameworks for entrepreneurial ecosystems (Table 1, page 71). Table 5 on the following page identifies these elements in Bristol. This list is by no means exhaustive: its purpose is indicative and responds to the necessity to have a 'rich mix' (Marshall and Rossman, 2006) in any given site selection. The value of this exercise is that it demonstrates methodological external validity for an investigation into an(y) entrepreneurial ecosystem. Using the institution-led frameworks to identify institutional elements within a particular geographic context provides a useful starting point for other cities or regions that might be used as case studies: if an entrepreneurial ecosystem in theory has these foundational institutional elements, it makes sense to establish whether those elements are there in practice in the geographic area where the researcher wishes to undertake an investigation.

TABLE 5: ELEMENTS OF THE INSTITUTION-LED FRAMEWORKS MAPPED ONTO BRISTOL

Elements		Some examples from Bristol				
	Talent and	145,700: Working age population with NVQ Level 4 and above				
	workforce	(2015) ⁴¹ . Total jobs in South West, March 2018: 2,945,000				
	Large	Imperial Brands PLC: £27,634,000,000 (tobacco)				
	companies	PPL UK Distribution Holdings Limited: £1,480,600,000 (energy)				
	(Five largest	Conviviality Group Limited: £988,919,000 (wholesale drinks)				
	companies	OVO Group Ltd: £716,980,000 (energy supplier)				
	plus 2017	Mitie Technical Facilities Management Ltd: £656,149,000				
	turnover) ⁴²	(engineering)				
S	Public sources	West of England Growth Hub				
<u>io</u>	of funding	Business West Business Grants				
Systemic conditions		Business West Funding Circle				
	Private	South West Investment Group				
<u>:</u>	sources of	Cool Ventures				
em	funding	Bristol Angel Hub				
yst	Support	West of England Growth Hub				
Ś	services &	BRAVE Enterprise				
	mentors	Engine Shed programmes				
	Incubation &	SETSquared (incubator)				
	education for	WebStart Bristol (accelerator)				
	founders	Oracle Startup Cloud (accelerator)				
	Universities	University of Bristol and the University of the West of England (UWE				
		Bristol). Combined student population (2015): 50,957 ⁴³				
	Informal	TechSPARK				
	networks	South West Founders				
suc	Physical	Engine Shed Redbrick House				
	infrastructure	Pithay Studios DeskLodge				
itic	(Coworking)	Mild Bunch Watershed				
Framework conditions	Policy	Bristol City Council and West of England LEP				
20	Culture	"There is a huge can-do attitude – which makes it so much easier for				
or.		businesses to start and grow. This raises the profile of the city which				
ēĶ		makes it much easier to attract investment, media and political				
Ě		attention, customers, and senior talent – all things which have				
Ę.		historically been difficult for Bristol startups". Director of SETSquared,				
		Interview with Startacus, June 2014 ⁴⁴				
		Source: Table devised by the author				

Source: Table devised by the author

⁴¹ Source: https://startups.co.uk/starting-a-business-in-bristol/. Accessed 13 August 2018

 $^{^{42}}$ Source: http://www.southwestbusiness.co.uk/sectors/manufacturing/the-top-150-companies-in-the-west-2018-25012018075815/. Accessed 13 August 2018

⁴³ Sources: bristol.ac.uk and uwe.ac.uk. Accessed 13 August 2018.

⁴⁴ Source: https://startacus.net/culture/bristol-the-uk-s-creative-startup-hub#.W3F8ktjdvOQ. Accessed 13 August 2018.

While it was important for this research project to ensure that all the institutional elements of an entrepreneurial ecosystem were present in Bristol, the obvious difficulty with this approach is that a similar list could be drawn up for any one of the UK's Core Cities. Merely listing the institutional elements of an entrepreneurial ecosystem does not, in and of itself, mean that that city or region has a 'strong' entrepreneurial ecosystem, i.e., one that is both well-resourced and well-networked (Spigel and Harrison, 2018) or one that comes high up in the lists compiled by organisations such as Tech Nation, the ScaleUp Institute, Startup Blink, or Startup Genome. The drawback in this approach speaks to the critique of the institution-led frameworks that was made throughout the literature review: identifying the elements of an entrepreneurial ecosystem is a useful starting point, but without a more thorough investigation of how the institutional elements are related or connected, our knowledge of mechanisms remains limited.

To make a convincing case, therefore, for why this research project should focus on Bristol, one can look to grey literature related to the entrepreneurial ecosystem there. Two organisations in particular, Tech Nation and the ScaleUp Institute, are well-regarded authorities in this area by practitioners and policymakers alike. Tech Nation (Tech City UK, 2017; Tech Nation, 2018, 2020, 2021) has consistently highlighted Bristol as having a strong cluster of tech entrepreneurs in its annual reports. Bristol is also highlighted as having a particularly strong ecosystem for scaleups by the ScaleUp Institute (Coutu, 2014; *Annual Scaleup Review 2018*, 2018; ScaleUp Institute, 2021). A national Venture Capital firm conducted their own survey of UK cities to establish the strength of the entrepreneurial ecosystem in each one, in order to help them decide where best to focus their time and investment (this is an internal facing document and not available to

the public), and Bristol scored highly in their evaluation. The approach used by this firm to evaluate different cities took into account the number of angel investors, availability of office space, support programmes, and companies that had raised Venture Capital funding. Startups.co.uk, which describes itself as, "the UK's leading independent, online resource for anyone starting and growing a business", ranks Bristol in second place in its Startup Cities Index 2017, which lists the top cities in the UK to start a business. And a 2016 study by UCL School of Management concluded that Bristol was first in a list of the 'Top ten UK cities to launch a startup'.

Gaining access

Once Bristol had been identified as the site of research, I needed to consider how to gain access to the entrepreneurial community. In a research setting, 'gatekeepers' are individuals who can grant or deny access to the research site (Lune and Berg, 2017). I identified two primary gatekeepers to the entrepreneurial ecosystem in Bristol and contacted them to ask whether they would be interested in participating in the research and assisting with introductions to others. Happily, they both readily agreed, and this was key in unlocking many (though not all) of the subsequent interviews. That these two individuals acted as gatekeepers was not merely because of my previously established relationships with them, but it was also because they were (and still are) widely trusted and respected across the entrepreneurial ecosystem in Bristol. With warm introductions from these gatekeepers, research participants came to the

⁴⁵ Source: private correspondence between the researcher and the Director of External Relations at a national Venture Capital investment company, 19 July 2018.

⁴⁶ Source: https://startups.co.uk/the-uks-top-25-cities-to-start-a-business/. Accessed 13 August 2018.

⁴⁷ Source: https://www.mgmt.ucl.ac.uk/news/top-ten-uk-cities-launch-start. Accessed 16 February 2020.

open than they might have been had the method of contacting them been an email from a stranger. Thanks to these introductions, I was able to go into the interviews knowing that there would be a positive reception to the research project and the questions.

It is recognised that interviewees open up more when they are in an environment where they feel relaxed and at ease with their interviewers (Lune and Berg, 2017). Building rapport and engendering trust with interview participants was therefore extremely important (Bryman, 2012; Saunders, Lewis and Thornhill, 2016). In the early stages of the research, warm introductions from a trusted gatekeeper put the participants at ease as described previously. The approach of the researcher is paramount here too: it was important to be friendly as well as professional throughout correspondence prior to the interview, as well as during the interview itself (Lune and Berg, 2017). It was important that I empathised with what participants said, and that I demonstrated a genuine interest in their responses. This was not hard for me to do: my professional experience working in entrepreneurial ecosystems and my own interest in this subject area meant that I genuinely enjoyed conducting the interviews and meeting the various participants.

Participant sampling

It was important to interview a representative sample of actors within the Bristol entrepreneurial ecosystem, whilst also allowing flexibility to include individuals and organisations that might not have come up in an initial scan of the environment. In the literature review, the exercise of comparing and contrasting the various institution-led

frameworks demonstrated that there are a number of commonalities that can be used as a starting point to list the main elements of an entrepreneurial ecosystem (see Table 1, page 71). Identifying a sample of interview participants based on a defined list is known as purposive sampling; it requires the researcher to use her judgement as to who is included and who is excluded (Bryman, 2012).

'Typical case' purposive sampling enables the researcher to provide an illustration of what is 'typical' within a certain context: in this instance, I identified individuals to interview based on the list of 'typical' or commonly identified entrepreneurial ecosystem elements. These individuals are detailed in Table 6 on the following page, which includes their pseudonymised name and organisation (used in the empirical chapters), their occupation (generalised as far as possible, as discussed in the previous section on ethical considerations), and the classifications and attributes that I assigned to them as part of the coding process (described in section 4.5).

Alongside these typical cases, it was also important to retain the flexibility of mind to include other organisations and individuals as the research unfolded. This was in part due to the fact that my initial access to the field was via two primary gatekeepers: there was a risk that the sample would be skewed based on individuals that the gatekeepers knew and liked, thus shutting down other potential avenues of exploration. Having this awareness early on meant that I could mitigate these risks in two ways: by employing a snowball sampling strategy and through participant observations conducted during site visits. These methods are detailed on the page immediately following Table 6.

TABLE 6: INTERVIEWEES SELECTED THROUGH 'TYPICAL CASE' SAMPLING

Pseudonym	Sex	Org. name/pseudonym	Role	Type of organisation	Classification
Stephen	М	WePlant	Co-founder & Director	Product-led startup	Entrepreneur - Early-stage
Natalie	F	GuideWay	Co-founder & Director	Product-led scaleup	Entrepreneur - Later-stage
David	М	Midri	Founder & Director	Agency/consultancy	Entrepreneur - Later-stage
Craig	М	Pangloss	Founder & CEO	Product-led scaleup	Entrepreneur - Later-stage
Ryan	М	MultiJobPro	Founder & CEO	Service-led startup	Entrepreneur - Early-stage
Stuart	М	ChipAl	Founder & CEO	Product-led scaleup	Entrepreneur - Early-stage
Graham	М	Black Rose	Founder & CEO	Service-led scaleup	Entrepreneur - Later-stage
Jennifer	F	Precisely Social	Founder & Director	Agency/consultancy	Entrepreneur/Stakeholder
Melanie	F	FR3	Co-founder & Director	Agency/consultancy	Entrepreneur/Stakeholder
Taylen	М	Knowledge Ways	Founder & CEO	Agency/consultancy	Entrepreneur/Stakeholder
Michael	М	WECA	Head of Business	Public Sector	Stakeholder
William	М	UWE	Pro VC of Enterprise	University	Stakeholder
Richard	М	Incubator X	Centre Director	Incubator	Stakeholder
Gary	М	Bank A	Relationship Director	Professional Services	Stakeholder
Emma	F	Tech Women	Founder	Network	Stakeholder
Robert	М	Business West	Chief Executive	Network	Stakeholder
Mark	М	National VC	Lead	Investment	Stakeholder
Timothy	М	Accelerator S	Community Manager	Accelerator	Stakeholder
lan	М	Uni of Bristol	Head of Commercialisation	University	Stakeholder
Catriona	F	Uni of Bristol	Enterprise Manager	University	Stakeholder
Carl	М	Bristol City Council	Econ. Dev. Manager	Public Sector	Stakeholder
Anne	F	National VC	Director	Investment	Stakeholder
Deborah	F	Accelerator W	Community Manager	Accelerator	Stakeholder
Louise	F	Incubator Z	Community Director	Incubator	Stakeholder
Julie	F	Accelerator S	Director	Accelerator	Stakeholder
Laurel	F	Coworking D	Managing Director	Coworking space	Stakeholder
Lucy	F	Coworking F	CEO	Coworking space	Stakeholder
Alistair	М	Incubator Y	Centre Director	Incubator	Stakeholder
Susan	F	Young Entrepreneurs	Co-founder	Network	Stakeholder
Samantha	F	Solicitors	Partner	Professional Services	Stakeholder
Robin	М	Incubator Z	Director	Incubator	Stakeholder
Isobel	F	Freelance	Director	Professional Services	Stakeholder

First, by employing a snowball sampling strategy (Bryman, 2012), I was able to reach other interviewees through the existing interview participants; and second, by attending relevant events and engaging in networking activities during visits to the site, I was able to meet a wider range of people and form my own connections within the entrepreneurial ecosystem. Snowball sampling is a technique that can be employed when it is difficult to identify members of the target population (Saunders, Lewis and Thornhill, 2016). Snowball sampling is not without its challenges however: respondents are most likely to identify other potential interviewees who are similar to themselves, thus resulting in a homogenous sample (Saunders, Lewis and Thornhill, 2016). This is where it became important for me to attend events and be present in the entrepreneurial ecosystem in order to meet a wider variety of potential interviewees.

Like any concept, an entrepreneurial ecosystem is intangible and hard to define. So much of what an entrepreneurial ecosystem 'looks like' depends on an individual's perception and experience of that ecosystem: indeed, this transpired to be one of the key findings of this research project. While it was useful to have a list of potential interviewees as a starting point for 'typical case' purposive sampling, it was equally important to maintain a flexible outlook and be prepared to seize opportunities as and when they arose. Snowball sampling and warm introductions from interviewees to other potential participants opened up the field to me beyond the initial list of possible interviewees.

Interview preparation

The research design was to conduct semi-structured interviews with a range of actors to understand their perception and experience of the Bristol entrepreneurial ecosystem. Semi-

structured interviews allowed me to explore the perceptions and assumptions of the respondents (Mason, 2018) whilst providing a logical flow to the discussion and acting as a prompt to keep the interviewee on topic (Bryman, 2012). The very nature of semi-structured interviews is that they are flexible and allow the conversation to meander in different directions. Over the course of the interviews, some questions went unanswered and fresh questions emerged as the conversation flowed. The interviews were never designed to provide like-for-like comparators; indeed, it was the depth and variety of the conversations held that provided me with rich qualitative data.

Two interview schedules were prepared: one for entrepreneurs and one for other ecosystem practitioners who were loosely grouped together as 'non-entrepreneur stakeholders' (see Appendices 1 and 2). Prior to the interview taking place, I sent participants a Participant Information Sheet which detailed the research project, and the Consent Form, so that participants were aware of the nature of giving consent to be interviewed (see Appendices 3 and 4). I brought paper copies of the Consent Form to each interview, so that the interviewees could sign them in person. In the actual interviews, I first presented the research aim and sought consent to record the interview (audio only). This was also the opportunity to discuss issues around confidentiality and anonymity. Many participants observed that 'Bristol is a village', by which they meant that they knew all of the main actors within the entrepreneurial ecosystem. This had implications for anonymising the participants: even though I use pseudonyms in the final written work, there are risks that someone from within the Bristol entrepreneurial ecosystem might recognise the individuals from their quoted words. These

risks were explained to all participants, and everyone gave their consent to continue with the interviews despite these potential risks.

Practicalities of conducting the interviews

In total, 33 individuals were interviewed: 10 entrepreneurs and 26 non-entrepreneur stakeholders (three of the participants straddled both the 'entrepreneur' category and the 'non-entrepreneur stakeholder' category). One individual was interviewed twice, bringing the total number of interviews to 34.⁴⁸ The interviews took place over seven months, from February 2019 to August 2019, and all except one were face-to-face. The majority took place in the interviewee's place of work, with three taking place in a public space (cafes or coworking spaces) and one taking place over the phone. Over those seven months of fieldwork, I visited Bristol eleven times, each time staying for a number of days and conducting several interviews. These extended visits afforded me the opportunity to attend networking events and work from several different coworking spaces. This exposure to the Bristol entrepreneurial ecosystem allowed me to become familiar with the city, the spaces and places referred to, and many of the individuals who were well known in the entrepreneurial community.

The interviews that I conducted with entrepreneurs focussed on the support they received in setting up and building their business, in terms of formal institutions, informal networks, and particular individuals who might have helped them. The interviews with the non-entrepreneur

⁴⁸ The first interview with this individual was cut short due to an unexpected interruption where he was called away on urgent business, so we rearranged for a second interview in order to continue the conversation. The second interview took place three months after the first.

stakeholders focussed on the types of support that their organisations (or they themselves as individuals) provided for entrepreneurs, and the role of their organisation within the wider business environment. Non-entrepreneur stakeholders were also asked to identify other relevant organisations and individuals who support entrepreneurs. Entrepreneurs and nonentrepreneur stakeholders alike were asked whether they felt like the environment had changed since they started their business or started working for the organisation in question. Given that the phrase 'entrepreneurial ecosystem' has a wide range of interpretations and definitions, the interview schedule was designed in such a way to elucidate the individuals' experience of that ecosystem, without steering them to identify it as an 'entrepreneurial ecosystem' unless they did so of their own volition. In all preparatory correspondence, in the Participant Information Sheet and Consent Form, and in the interview schedule, the phrase 'entrepreneurial ecosystem' was not included. Rather, the interview was framed around the interviewee's entrepreneurial experience within Bristol and its environs. For instance, from the Participant Information Sheet (Appendix 3): "The aim of this research is to better understand how entrepreneurs start / run / grow a business in the city and region in which they are based, through an exploration of the people and places that are significant to entrepreneurs."

During the interviews, I purposefully did not use the term 'entrepreneurial ecosystem' until it was mentioned by the participant, and at that point the question was asked, "What do you mean by an entrepreneurial ecosystem?" or "How would you describe it?". If, towards the end of the interview, the phrase had not been spoken at all, I pulled together words and phrases mentioned by the interviewee to say, "A lot of what you've mentioned so far could be considered to be part of Bristol's entrepreneurial ecosystem. Have you come across that term

before? What does it mean to you?". By not mentioning the term until late on in the interview, it was possible to hear the interviewees reflect on the entrepreneurial ecosystem without their responses being preconditioned by the knowledge that this was my topic of interest.

The interviews were triangulated with the insights garnered through participant observation. As described in section 4.3, the nature of participant observation that was undertaken during my visits to Bristol was as 'observer-as-participant' (Saunders, Lewis and Thornhill, 2016). This entailed attending get-togethers and working from different coworking spaces, thus facilitating my ability to both participate in the entrepreneurial ecosystem and observe the actors within it. The get-togethers that I attended included informal meetups and more formal events where there was usually a keynote speaker or panel discussion. The audience for these get-togethers included entrepreneurs, people interested in entrepreneurship, students, mentors, and nonentrepreneur stakeholders. Over the course of eleven site visits and the seven months of data collection, I saw many of the same faces at events and meetups, and I would often see those same individuals working from the different coworking spaces. These repeat encounters not only helped to build trust with interview participants (many of whom attended the same gettogethers) but it also solidified a clear picture of who was 'in' the entrepreneurial ecosystem. This notion of being 'inside' or within the entrepreneurial ecosystem became a significant theme of the data analysis and subsequent write-up.

This example demonstrates how participant observation can play an instrumental role in aiding the researcher to "work through new theoretical connections and analytical understandings" (Emerson, Fretz and Shaw, 2001, p. 355). I found that the observations I made when *in situ*

helped me to better understand some of the imperceptible dynamics of the entrepreneurial ecosystem and its varied actors. Although the insights garnered through participant observation were not formally analysed (for instance, by transcribing and coding fieldnotes), they played an influential role in the subsequent thematic analysis of the interviews by enabling me to develop initial interpretations. The iterative nature of the thematic analysis is considered further in the following section.

4.5 Analysing the data

In this section, I describe my approach to analysing the data. I cover the practicalities of transcribing the interviews, how they were then classified and coded, and I discuss the continuous and iterative nature of thematic data analysis.

Transcribing the interviews

The interviews lasted between 30:18 minutes and 01:28:48 minutes, with the average length across all 34 interviews being 52:09 minutes. All interviewees had agreed in advance to give me an hour of their time, and the majority of the interviews were close to the full hour in length, with seven going over the hour. The 34 interviews produced close to thirty hours of raw recordings. I manually transcribed 25 of the interviews myself, listening to them on the software programme 'VLC Media Player' at a decreased playback speed, and transcribing the audio into a Word document.

I included timestamps roughly at each five-minute mark, and always against my name (unless the interviewee was in full flow, in which case I inserted the timestamp in brackets in the middle of their speech). The purpose of this was to ensure that I could check for accuracy at a later date if needed (for instance, if I needed to quickly cross-reference the transcript against the audio file to check for intonation). Excerpts from two transcriptions, one with an entrepreneur and one with a non-entrepreneur stakeholder, are in Appendices 5 and 6.

I used the services of a professional transcriber for the remaining nine interviews.⁴⁹ To check that the paid-for transcriptions were accurate, I listened to the audio file whilst reading the transcription and made any necessary corrections or edits, as described in the following paragraph. For the thematic analysis, I listened again to all 34 audio files and read all the transcriptions again, both the ones that I had transcribed as well as the ones I had outsourced, as described in the sub-section on 'classifying and coding', section 4.4. This immersive process helped me to mitigate against any potential loss of context, intonation, or emotional weighting that might have otherwise resulted from outsourcing those nine interviews to be transcribed.

Once I had a full set of 34 transcribed interviews, I then went through a process of listening to each interview again at an increased playback speed, whilst reading the transcription at the same time. The aim of this was to correct any errors, insert any missing timestamps, and re-

⁴⁹ I had planned to transcribe all interviews myself, but the course of my PhD was interrupted by taking three authorised leaves of absence (including 12 months maternity leave) in my third and fourth year. I returned to the PhD part-time after maternity leave in March 2021, which was over 18 months after my final interview had been conducted in August 2019. At this point, I still had 15 outstanding interviews to transcribe. I transcribed 6 of these myself, using the same techniques described previously, and I sought the support of a professional transcriber for the 9 outstanding interviews to ensure that I could move onto the data analysis and write-up as quickly as possible.

familiarise myself with the data. I also used this opportunity to re-format the nine transcriptions that had been outsourced to the professional transcriber. I found that the outsourced transcriptions included more 'filler' words than the transcriptions I had done myself, for example, "hmm" or "err". I edited the outsourced transcriptions so that they matched my own transcriptions in style and format. In total, the 34 transcriptions amounted to 477 pages and 266,639 words (see Table 7 below).

TABLE 7: DATA POINTS FOR THE INTERVIEWS AND TRANSCRIPTS

Interviews	Transcripts	
Total no. of interviewees: 33	Total no. of transcripts: 34	
Total no. of interviews: 34		
(2 interviews with the same individual)	Shortest transcript: 8 pages / 4675 words	
No. interviews with entrepreneurs: 7	Longest transcript: 30 pages / 16588	
No. interviews with non-entrepreneur	words	
stakeholders: 23		
No. interviews with stakeholder/entrepreneur: 3	Total transcribed pages: 477 pages	
	Total word count: 266,639	
Shortest interview: 30:18 mins/secs		
Longest interview: 01:28:48 hrs/mins/secs		
Total number of hours: 29:33:21 hrs/mins/secs		

Source: Table devised by the author

The details of interviewees and interviews (e.g., name, organisation, role, date of interview) were compiled in a spreadsheet. The next step that I undertook was to give each individual a code, starting with E for entrepreneur or S for stakeholder: E01, E02, S01, S02 etc. For the three interviewees who could be classified as both entrepreneur and stakeholder, I gave them a double code, so E01-S05, for example. I added an additional column in the spreadsheet to indicate the sex of the interviewee. I then deleted the real name of the interviewee and created pseudonyms to use against the interview codes. I used a random name generator to generate a list of pseudonyms, removing any duplicated first names, or any names of famous people, then

matching them up against the sex of the interviewees.⁵⁰ I also created a list of pseudonyms for the business names of individuals I interviewed. I saved a list of real names and codes in a separate document, ensuring that the pseudonym and real name could never be seen alongside one another. I then read my transcripts a third time and inserted the pseudonyms against their contributions. I ensured that the correct pseudonyms were also inserted for any occasions where an interviewee or business was mentioned in other interviews, so that there was consistency across all 34 interviews.

Classifying and coding

Once I had a full set of transcriptions that had been double-checked against the audio, proof-read, and pseudonymised, I then listened to all interviews for the third or fourth time at double speed whilst reading the transcripts to pull out emergent themes. I did this in an unstructured way, keeping an A4 sheet of handwritten notes for each interview, with themes jotted down in no particular order. Once I had an A4 page of themes for each interview, I then collated similar themes together using different coloured highlighter pens. The themes that emerged from this process were guided by my research questions, informed by the years spent reading about and working in the field of entrepreneurial ecosystems, and were influenced by the insights garnered through participant observation. All these sources of knowledge thus fed into a number of handwritten mind-maps showing themes and sub-themes. These mind-maps formed the basis of the coding architecture which I inputted into NVivo (see Appendix 7).

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⁵⁰ Pseudonyms were generated using https://britishsurnames.co.uk/random. Accessed 6 October 2019.

NVivo is a software programme that is particularly well suited to the coding, classification, and analysis of qualitative data. Text-based and media sources can be uploaded, classified, and then coded, all within one programme. NVivo enables the researcher to run different queries based on the coded data to highlight trends, relationships, and connections. I uploaded my transcripts to NVivo and allocated them with the File Classification of 'interview'. In my coding architecture, each 'parent code' refers to an overarching theme which is then broken down into 'child codes' representing the sub-themes (see Appendix 7). There are a total of 11 parent codes and 52 child codes. I included descriptions against each child code to ensure consistency between interviews over the course of coding. Once I had uploaded all of my transcripts, I then read through them one by one in NVivo and coded them by highlighting relevant sentences and adding these to their corresponding child code. Occasionally, a new theme would emerge, at which point I would create a new code, ensuring that it fitted within the existing coding architecture.

I used the Cases function to add significant meta-data to each transcript. Each interview was saved as a 'Person', and I added the Case Classifications of sex, stakeholder, entrepreneur, and organisation. Beneath each Case Classification, I added relevant attributes, as detailed Table 8 on the following page. I then assigned these attributes to each 'Person', so that at a glance, I would know that Richard was male, a Stakeholder, not an entrepreneur, and worked for an Incubator; and that Natalie was female, not a Stakeholder, and was a later-stage entrepreneur.

The purpose for classifying my interviews as cases was to enable me to contrast what different 'types' of people said about the same subject. For instance, I was able to compare the opinion

of an early-stage entrepreneur (a case) to a later-stage entrepreneur (a case) about investment (a code) or events (a code). This became particularly relevant when exploring the perspectives of different entrepreneurs and non-entrepreneur stakeholders.

TABLE 8: CLASSIFICATIONS AND ATTRIBUTES IN NVIVO

Case Classification	Attributes (the available options to be attributed to each Person)	
Sex	Male	
	Female	
Stakeholder	Yes	
	No	
Entrepreneur	Yes – early-stage	
	Yes – later-stage	
	Yes – agency/consultancy	
	No	
Organisation	University	
	Public Sector	
	Professional Services	
	Network	
	Investment	
	Incubator with acceleration programme	
	Incubator	
	Commercial coworking space	
	Agency/Consultancy	
	Not Applicable (this option selected if the interviewee was an	
	entrepreneur)	

Source: Table devised by the author

A note about some of these Case Classifications: I use the term Stakeholder here (and 'non-entrepreneur stakeholder' throughout this thesis) to refer to individuals who are active within the entrepreneurial ecosystem. They are generally the individuals who carry out Ecosystem Development Work whether in their role heading up an incubator, or by running events, or through their ability to make introductions and so on (Ecosystem Development Work is defined and further discussed in Chapter 6). By adding the Case Classification of 'Organisation', I was

able to add nuance to their role as Stakeholder, by indicating what type of organisation they were associated with. I interviewed three people linked to three separate 'Incubators', and three people linked to two separate 'Incubators with acceleration programme'.

Within the Entrepreneur classification, I created the Attribute 'Yes – agency/consultancy' to refer to the three individuals who fell into both camps of Stakeholder and Entrepreneur. When I had arranged to interview these individuals, it was on account of their work as non-entrepreneur stakeholders in the entrepreneurial ecosystem, rather than as entrepreneurs.

Once I met them, it transpired that they were all entrepreneurs as well, having founded agency/consultancy type businesses. It was important to distinguish them from the individuals whom I had approached as entrepreneurs, to reflect the fact that an entrepreneurial ecosystem generally refers to the supportive environment for a particular type of entrepreneur, namely, those who are creating products or services that have the potential to scale. An agency/consultancy type business model can only scale by hiring more people who have the particular expertise that is required, be that marketing or Public Relations or another skill. A product- or service-based startup can scale through the development and application of new and innovative technology. That is not to say that they do not hire, but their business model does not depend on hiring in the same way that an agency/consultancy does.

Thematic data analysis

Thematic data analysis is a foundational method within qualitative methodologies which enables the researcher to identify, analyse, and report on recurring patterns within data methodologies (Braun and Clarke, 2006). Thematic analysis is also one of the most mysterious

methods (Ryan and Bernard, 2003). Within this method, the 'theme' becomes the unit of analysis for the researcher (Lune and Berg, 2017), but as Braun and Clarke (2006) argue that there is no clear process for identifying themes that researchers can follow. Identifying themes is, more often than not, guided by intuition (Cass and Symon, 2004) and requires the researcher to be flexible and use her judgement (Ryan and Bernard, 2003).

I took an inductive approach to identifying themes (Braun and Clarke, 2006), allowing myself to be guided by the data (what my interview participants said) without trying to fit it into a preconceived framework (based on my own biases and preconceptions). How this occurred in practice is described in the preceding sub-section: by reading and re-reading the interviews and making notes of themes I was able to immerse myself in what my participants said before I attempted to classify and organise those themes into a coding architecture. The emerging themes were informed by numerous aspects: my reading of the literature; my own professional experience of working in entrepreneurial ecosystems; my experience of conducting the fieldwork; the insights garnered through participant observation; and the actual words that the interviewees said.

Thematic interpretation of the data was iterative and ongoing, and was inspired by Braun and Clarke's (2006) six phases of thematic analysis. In brief, the six phases are: 1. Familiarisation with the data; 2. Generating initial codes; 3. Searching for themes; 4. Reviewing themes; 5. Defining and naming themes; 6. Producing the report. The initial coding architecture evolved over the course of the coding process that was carried out in NVivo. Even once the interviews were coded, my focus on particular themes over others continued to evolve during the writing-

up process, echoing Braun and Clarke's (2006, p. 87) description of the sixth phase as being "the final opportunity for analysis", whereby the researcher relates the thematic analysis back to the research questions and the academic literature. Leading from the constructionist and interpretivist underpinnings to the research, meaning-making occurred through a phenomenological interpretative analysis of the data gathered during the fieldwork. Phenomenology relates to how individuals make sense of the world around them, and how the researcher's own preconceptions might influence their interpretation of the data (Bryman, 2012). Throughout this process, I needed to remain reflexive in order to critically examine my own biases. For instance, I went into the data collection and analysis hoping to understand more about interviewees' perceptions of the geographic boundaries of the entrepreneurial ecosystem. What emerged through an interpretative and thematic analysis of the data was that boundaries were relationally constructed as well as geographically. Some of the themes that emerged came as a surprise to me, for instance, the three themes related to exclusion from the entrepreneurial ecosystem (socio-economic, ethnicity, and gender, discussed further in Chapter 5). It would transpire that these two examples of emergent themes would significantly inform how I responded to the research questions, thus demonstrating that as a researcher I was able to move beyond my own expectations and biases, and bring out the meanings implied by my interviewees.

4.6 Conclusion

This chapter has presented the methodology and methods which underpin the empirical research, including the ethics and practicalities of conducting fieldwork and the subsequent

thematic data analysis. The impetus for the research project, originating from my professional experience as well as from a close reading of the literature, was made clear, and the subsequent implications of this on my role as a researcher occupying 'the space between' were described. My constructionist ontology and interpretivist epistemology were made explicit. This was brought together with the research aims to show why a qualitative methodology was most suitable for this research project. I described the design and practicalities of conducting a case study and carrying out interviews. This chapter also described how the data was analysed, and the tools and techniques employed to reach the themes and code the interviews.

CHAPTER 5. Exploring the geographic and relational boundaries of the entrepreneurial ecosystem

5.1 Introduction

This chapter responds to RQ1: "What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?". This research question presents an opportunity to examine both the geographic and relational aspects of the entrepreneurial ecosystem phenomenon, and to explore distinct perspectives from 'inside' and 'outside' the entrepreneurial ecosystem. This chapter responds to a gap in the literature related to how the spatial dimensions of an entrepreneurial ecosystem are currently theorised and understood (Schäfer, 2021), and specifically, how we understand its boundaries. This requires identifying where the institutional elements that are considered to be part of the entrepreneurial ecosystem are located geographically in and around Bristol. By exploring non-entrepreneur stakeholders' perceptions of the geographic boundaries of the Bristol entrepreneurial ecosystem, I show that there is a disconnect between the 'official' view, and the view expressed by practitioners working in entrepreneurial support functions. The resulting fuzziness of how the geography is interpreted leads me to suggest that the boundaries of the entrepreneurial ecosystem do not align with the regional boundaries as they are delineated geographically, despite this being an implicit stylised fact within the literature (Cohen, 2006; Stam and van de Ven, 2007; Motoyama, Watkins and Knowlton, 2014; Brown and Mason, 2017; Florida, Adler and Mellander, 2017; Stam and Spigel, 2017).

In order to further elucidate the boundaries of the entrepreneurial ecosystem as perceived by its actors, I draw on the notion of place attachment which refers to the bond between individuals and where they reside (Relph, 1976). Intrinsically related to the concept of place attachment is the concept of 'insideness' (Relph, 1976). If a person feels 'inside' a place, he or she feels safe and at ease, and therefore has a stronger attachment to that place. Whether one feels 'part of' the entrepreneurial ecosystem or not is a deeply philosophical question, and one which goes above and beyond the way in which the extant literature conceptualises the boundaries of an entrepreneurial ecosystem, which lean more towards boundaries that are drawn along socio-political-economic lines. Place attachment has been considered in the entrepreneurial ecosystems literature with reference to embedded entrepreneurship (McKeever, Jack and Anderson, 2015) and the local economic and cultural impact of successful entrepreneurs (Feldman, 2014), however the concept of 'insideness' has not. Building on the idea that an entrepreneurial ecosystem is defined by relational ties, I explore the extent to which entrepreneurs feel inside (or part of) the entrepreneurial ecosystem. This idea is further extended through an exposition of the ways in which entrepreneurs feel outside (or excluded from) the entrepreneurial ecosystem. This exploration leads me to conclude that it is relational ties between individuals and institutions which influence the boundaries of the entrepreneurial ecosystem (and how those boundaries are perceived), alongside and in addition to the geographic boundaries as demarcated in political, geographical and regional terms.

This chapter is structured in three sections. The opening section considers the geographic nature of the entrepreneurial ecosystem phenomenon. To set the context, there is an overview of how geographic boundaries are drawn politically and economically in the Bristol region. This

is coupled with the 'official' geography of the Bristol entrepreneurial ecosystem as it is described in relevant policy documents. Following this, I draw upon comments from interviewees to illuminate similar and differing views on where entrepreneurship happens within the geographic locality, including where relevant institutions are located geographically. This analysis uncovers a tension between the 'official' view of the geography of the Bristol entrepreneurial ecosystem, and the view from practitioners and stakeholders who are working within it.

The second section of the chapter moves on to demonstrate that relational boundaries of the entrepreneurial ecosystem are just as, if not more, important than the geographic boundaries. I draw upon Relph's (1976) definitions of insideness and outsideness to illuminate the extent to which different interviewees felt that they were part of the Bristol entrepreneurial ecosystem (inside), or not (outside). The identification of insideness and outsideness points to the existence of a relational boundary that exists in people's perceptions of the Bristol entrepreneurial ecosystem. This section also considers the experiences and perceptions of entrepreneurs who feel excluded from the entrepreneurial ecosystem, either because they want to belong but feel unable to, or because they feel that they are not considered to be included within the entrepreneurial ecosystem. Exclusion is considered across three dimensions: economic, gender, and ethnicity. The focus here is not to provide a granular assessment of the inclusivity of and diversity within the Bristol entrepreneurial ecosystem, rather, it is to add weight to the argument that different people have different perceptions of where the relational boundaries lie, and as a result, have differing views on the extent to which they can participate in the entrepreneurial ecosystem.

The third and final section of this chapter provides an opportunity to reflect on place and space in entrepreneurial ecosystems. Having explored and exposed both the geographical and relational boundaries of the entrepreneurial ecosystem as they exist in real life, I return to the conceptual model introduced in Chapter 3 and extend the argument that an entrepreneurial ecosystem is best understood as a 'whole' comprised of constituent 'layers' that exist both geographically and relationally. This approach shifts our focus away from merely looking at the 'parts' of the entrepreneurial ecosystem (the institutional elements) and towards a more holistic view of a context-based phenomenon which exists within a geographically and relationally bounded space.

This chapter extends our understanding of the spatial aspects of an entrepreneurial ecosystem in three ways: first, by adding clarity to where its geographic boundaries are; second, in demonstrating the importance of relational ties; and third, by showing how notions of insideness and outsideness can be used to interpret the extent to which actors feel part of the entrepreneurial ecosystem. This chapter contributes to the thesis in two ways. First, by identifying the geographic boundaries, it is possible to show that the 'region' of the Bristol entrepreneurial ecosystem is very specifically defined and interpreted by the actors within it, and that it does not necessarily overlap with other socio-political-economic definitions of the Bristol area and the wider South West region. This clarifies the parameters for an investigation into the mechanisms of the entrepreneurial ecosystem. Second, by highlighting the importance of relational ties and place attachment, this chapter contributes to the thesis by emphasising how a bottom-up constructionist approach can help us to understand the concept.

5.2 Geographic boundaries of the Bristol entrepreneurial ecosystem

Entrepreneurial ecosystems are first and foremost geographic phenomena. They are rooted in place, both in terms of who they support (local entrepreneurs) and the output that they are intended to catalyse (productive entrepreneurship within a region). This section begins by setting the geographical context in which the fieldwork took place, and then moves on to explore perspectives from non-entrepreneur stakeholders, namely, policymakers and practitioners working in the Bristol entrepreneurial ecosystem. It was this group of interviewees, rather than the entrepreneurs themselves, who held definitive opinions on the economic geography of the Bristol entrepreneurial ecosystem, which is why they are the focus of this section.⁵¹

As established in the literature review, an entrepreneurial ecosystem is comprised of institutional elements, all of which have a physicality in the local area. Geography and boundaries are significant to our understanding of the phenomenon. It is therefore important to contextualise how the geography of Bristol and its environs are presented and understood in socio-political-economic terms, in order to unpack how the entrepreneurial ecosystem fits alongside or within that.

⁵¹ What transpired through an analysis of the empirical material was that entrepreneurs took a pragmatic approach to accessing support available; they accessed resources both inside and outside the geographic boundaries of the entrepreneurial ecosystem. As such, entrepreneurs' perspectives on the 'boundaries' of the entrepreneurial ecosystem can be considered to be more relational than geographic and are outlined in section 5.3.

The geographic context for the empirical fieldwork

Political, economic, and geographic boundaries rarely align completely (Feldman, 2014; Jones, 2017). This section aims to situate the Bristol entrepreneurial ecosystem within its geographic context, starting with the largest geographic area by scale and moving inwards. Figure 16 below provides the UK wide context, identifying Bristol alongside other major cities in England.

Cardiff, located in Wales, is identified on the map given its proximity to Bristol.

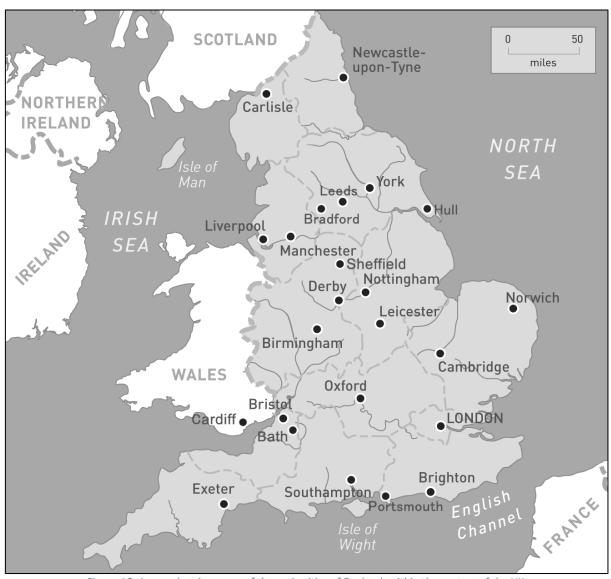


Figure 16: A map showing some of the main cities of England, within the context of the UK. (Cardiff, located in Wales, is identified given its proximity to Bristol and the South West of England.)

Source: author's own diagram.

Bristol is situated in the South West of England, the boundaries and location of which are shown in Figure 17 below. The South West of England is one of nine regions in England that were created in 1994 as a way to define electoral constituencies for the European Parliament when the UK was still part of the European Union (Atkinson and Wilks-Heeg, 2000). The South West of England is a large geographic area, stretching from Falmouth and Plymouth on the south coast, to Cheltenham in the Cotswolds, and Swindon in Wiltshire. Bristol is the largest city in the South West of England, with a population of 465,900 in 2020.⁵²

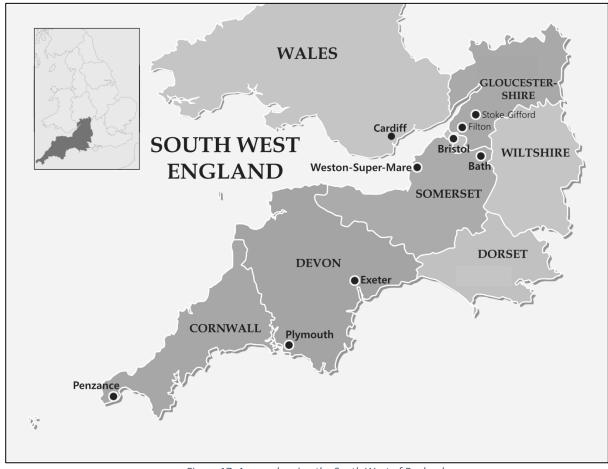


Figure 17: A map showing the South West of England. Source: author's own diagram.

www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020. Accessed: 22 April 2022.

⁵² Source:

Moving geographically inwards from the South West, the city of Bristol can also be said to be located within a politically defined regional area known as the West of England, which is governed by the West of England Combined Authority (WECA). This political conglomeration brings together three local authorities: South Gloucestershire, Bristol City, and Bath & North East Somerset. WECA was established in 2017 through a devolution deal that was signed in 2016 (West of England Combined Authority, 2017). This devolution deal transferred powers and funding by central government to local government, and granted the West of England region greater control over transport, skills, and strategic economic development (West of England Combined Authority, 2017).

WECA supports the West of England Local Enterprise Partnership (LEP), a private sector led board with representatives from businesses, universities, the region's councils, and the Combined Authority. Its function is to bring the voice of business to strategic decision-making, and to ensure that the region supports businesses to flourish. The LEP pre-dates the establishment of WECA and was created in 2010 by the Coalition Government that was elected in May that year, alongside other LEPs. The LEP includes representatives from four local authorities: South Gloucestershire, Bristol City, Bath & North East Somerset, and North Somerset. The inclusion of North Somerset is in addition to the three local authorities which are represented by WECA.

Figure 18 on the next page shows the geographic area covered by WECA (three local authorities, in dark grey) and the LEP (four local authorities, the dark grey areas plus the light grey area). The region is not alone in its misalignment between the LEP area and the Combined

Authority area, and it is acknowledged that this misalignment can cause complexity and tensions (Murphie, 2019).

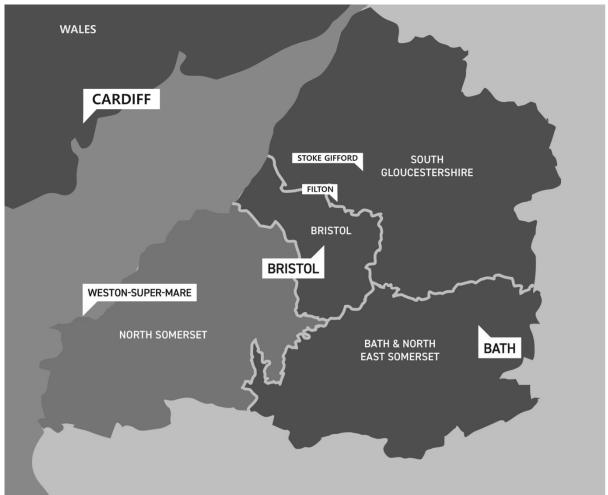


Figure 18: A map of the area covered by WECA (dark grey) and the LEP (dark grey plus light grey).

Source: https://www.westofengland-ca.gov.uk/, with the addition of Stoke Gifford and Filton by the author.

Moving inwards geographically once more, from West of England as a region to Bristol city, there are many ways in which the city can be subdivided. For the purposes of parliamentary representation, Bristol is divided into four constituencies (Bristol West, Bristol East, Bristol South, and Bristol North West), whereas the NHS Clinical Commissioning Group divides Bristol into three localities (Bristol North & West, Inner City & Bristol East, and Bristol South). Figure 19 on the next page shows the 35 wards of Bristol (local authority electoral areas). These wards

are grouped together to form 14 Neighbourhood Partnership areas (Bristol City Council, 2012). Like many UK cities, Bristol has high levels of economic inequality, with comparative wealth and deprivation varying enormously across the city. Areas to the south east of Bristol Central, such as Lawrence Hill and Filwood, are amongst the most deprived in the UK, whereas areas to the north west, such as Clifton and Redland, are amongst the UK's most affluent neighbourhoods.

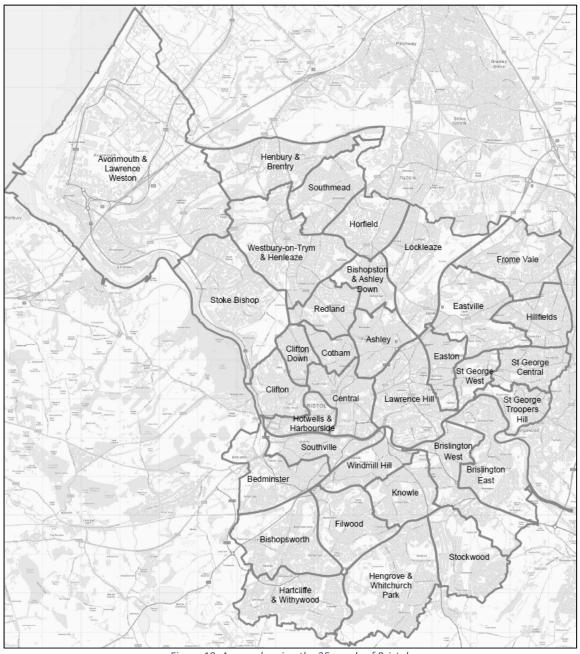


Figure 19: A map showing the 35 wards of Bristol. Source: Ordnance Survey.

The purpose of this exercise is to show the multiple ways in which lines can be drawn on a map to subdivide a geographic area, be it a country, region, city, or neighbourhood. Our perceptions about the place that we live are influenced by a whole range of factors, including where we grew up, the education we received, the occupation we hold, whether or not we have children, etc. It has been demonstrated, for instance, that place attachment is lower in neighbourhoods with increased deprivation (Bailey, Kearns and Livingston, 2012). What can be extrapolated from this is the probability that an individual living in a more deprived area of Bristol such as Lawrence Hill may have a less positive perspective of their city compared to an individual living in a more affluent area such as Clifton. In summary, there are a great variety of 'official' ways to refer to the geographic area of Bristol and its environs, all used to suit different purposes and audiences. There are also the myriad 'unofficial' ways in which people refer to their local and regional areas, all bound up in their personal perception and sense of place (Relph, 1976).

These opening paragraphs have illustrated some of the many ways in which the geography of Bristol can be imagined and portrayed on a map. Referring to the 'Bristol entrepreneurial ecosystem' can be added to a long list of ways in which people interpret and describe their geographic area. However, it is not immediately clear from that phrase where the geographic boundaries lie. Entrepreneurial ecosystems cannot be easily drawn on a map: as Feldman (2014) writes, we all know 'where' in the world Silicon Valley is located, but its boundaries as an entrepreneurial ecosystem are fluid. To unpick the boundaries of the Bristol entrepreneurial ecosystem, there are two perspectives to consider. First, there is the 'official' view, i.e., how the Bristol entrepreneurial ecosystem is described in policy documents both nationally and locally. Coupled with this view are the perspectives of individuals who hold senior roles in local or

regional government and who have some degree of decision-making power. Second, there are the perspectives from practitioners in the entrepreneurial ecosystem itself. Broadly speaking, this encompasses all non-entrepreneur stakeholders who might work in entrepreneur support functions or in professional services roles. The following section explores these perspectives.

Perspectives on the geography of the Bristol entrepreneurial ecosystem

As established in the literature review, there is a lack of clarity about which scale is most appropriate to analyse an entrepreneurial ecosystem: local, regional, or national (Malecki, 2018). While we can be guided by the literature to some extent, people's perspectives on the place(s) and space(s) in which they live and work are informed by their real-life experiences, not by theoretical constructs. In this section, the geographic shape of the Bristol entrepreneurial ecosystem is explored through the voices of non-entrepreneur stakeholders.

First, it is important to establish an 'official' view of the Bristol entrepreneurial ecosystem, as defined by the ScaleUp Institute and Tech Nation, two of the UK's leading policy-facing organisations in the area of entrepreneurship. The ScaleUp Institute's annual reports collect data about the number of scaleups by LEP area. Therefore, for the Bristol area, the ScaleUp Institute refers to the West of England LEP. As such, this is the scale that the ScaleUp Institute nominally employ to evaluate the entrepreneurial ecosystem. However, the examples provided in recent annual reports to highlight successful scaleup support programmes or initiatives within the West of England LEP area are all based in the city of Bristol, with no reference to any from the wider region (*Annual Scaleup Review 2018*, 2018; ScaleUp Institute, 2021), indicating that Bristol is the centre of the regional activity. Turning to Tech Nation; up until 2020, their

annual reports took a city-by-city approaching, highlighting successful digital companies and community-based initiatives based in each city. In 2018 for instance, Bristol was named the top UK city for productivity in the tech sector (Tech Nation, 2018). From 2020 onwards, the approach in the Tech Nation reports has been thematic, the aim being to highlight UK-wide trends in new technologies, investment, diversity in the workplace, and skills. The only place-based references in the Tech Nation reports of 2021 and 2022 are the 'Regional Snapshots' which provide quantitative data per region on matters such as the number of digital tech firms, their turnover, and some employment statistics (Tech Nation, 2020, 2021). The data from the most recent Tech Nation report (2021)⁵³ informs us that there are 17,495 digital firms in the South West region, employing a total of 67,870 people, with a turnover of £9bn. The report goes on to identify that there are two unicorn companies and three future unicorns (Tech Nation, 2021). In the two most recent annual reports, Tech Nation (2020, 2021) refers to the South West (region), and names Bristol (city) as the main 'tech hub' in this geographic area.

The 'official' WECA perspective on the entrepreneurial ecosystem mirrors the geography of the West of England. This area is the functional economic geography that takes into account where people live and where they work. In an interview with Michael, a senior director within WECA, he assessed that, "the West of England [is] probably the right scale in terms of the economic geography" when referring to the entrepreneurial ecosystem. When probed further about high

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⁵³ The 2022 Tech Nation report does not break data down to a regional level, rather, it compares the UK tech economy as a whole to other comparator nations.

⁵⁴ A widely accepted definition of a unicorn company is one which has reached a valuation of at least \$1b. See for instance: https://www.beauhurst.com/research/unicorn-companies/. Accessed 7th October 2022.

growth entrepreneurship specifically, Michael conceded that most of the entrepreneurship support was located within the city of Bristol but added the caveat that:

When you think about Bristol city in isolation, you miss out the northern fringe ... [also] Bath has a number of facilities to support entrepreneurship: it's got Bath University, Bath Spa, it's got an innovation centre within the heart of Bath as well ... so the West of England region makes absolute sense for all of that.

Within the West of England, Michael cited certain geographic areas where certain industrial sectors came together to form a cluster: for instance, the creative industries in Bristol city centre; media to the north of the city centre clustered around the BBC Natural History unit; and advanced manufacturing including aerospace around the 'northern fringe' of Bristol. 55 The view from William, a senior academic at the University of the West of England (UWE) and LEP board member, whose main campus is based in Frenchay (also part of the northern fringe) echoed that of Michael in the respect that he agreed that the centre of entrepreneurial activity was in Bristol, with other elements of entrepreneurship support clustering in certain geographic areas adjacent to the city.

This 'official' assertion that the Bristol entrepreneurial ecosystem equates the West of England geography was <u>not</u> one that was shared by practitioners working in the various institutions that comprise the entrepreneurial ecosystem. The practitioner view was that the geography of the Bristol entrepreneurial ecosystem did not neatly map onto the West of England regional

⁵⁵ The 'northern fringe' of Bristol is an area north of the city around Filton and Stoke Gifford, both included in the maps in Figure 17 and Figure 18, where a number of strategic economic assets are based. The northern fringe benefits from good road and rail connections to other UK cities and regions.

geography. Louise, Community Manager at Bristol-based Incubator Z, described the complexity as follows:

Geographic boundaries aren't helpful ... geography causes us so much trouble locally here because of the Bath–Bristol divide, and then WECA has their definition of what the West of England is, which doesn't include North Somerset because they opted out. But my definition does [include North Somerset] because it was from the LEP.

An analysis of the responses from policymakers, decision-makers, and practitioners in the entrepreneurial ecosystem indicated that entrepreneurial activity across the West of England is not evenly distributed. This suggests that the 'official' view of an entrepreneurial ecosystem that covers the West of England is not entirely accurate when assessed in real-life terms by stakeholders and practitioners operating within the Bristol entrepreneurial ecosystem. Views and perspectives differ over the boundaries of the Bristol entrepreneurial ecosystem, in particular over the inclusion of Bath, as will be discussed later in this chapter. However, there was broad agreement that the entrepreneurial ecosystem centres around Bristol, and that it stretches to encompass the 'northern fringe' of Bristol.

Bristol is the centre of the entrepreneurial ecosystem

One area of agreement across interviewees was that Bristol was seen to be the centre of gravity for the entrepreneurial ecosystem. This reflects its position as the largest and most populous city in the region, and the powerhouse of the regional economy. In 2017-2018 there was an effort to map the entrepreneurial ecosystem in and around Bristol. The result of this exercise, the 'Scaleup Map', has a permanent home on the Scaleup Generator website and was the primary output of a short-term project run in partnership with WECA seeking to understand

the challenges faced by scaleup companies in the West of England.⁵⁶ The Scaleup Map shows quite clearly that the entrepreneurship-focused support organisations are heavily centred around Bristol, with a secondary cluster of entrepreneurial support organisations in Bath, and a third cluster around the 'northern fringe'. This would support the notion that Bristol is the centre of gravity and shows that activity is not equally spread across the West of England, despite the 'official' WECA position that the entrepreneurial ecosystem covers that broader regional geography. Part of the Scaleup Map is shown below in Figure 20 (the geography shown here was selected deliberately to overlap with the geography of the WECA map in Figure 18).

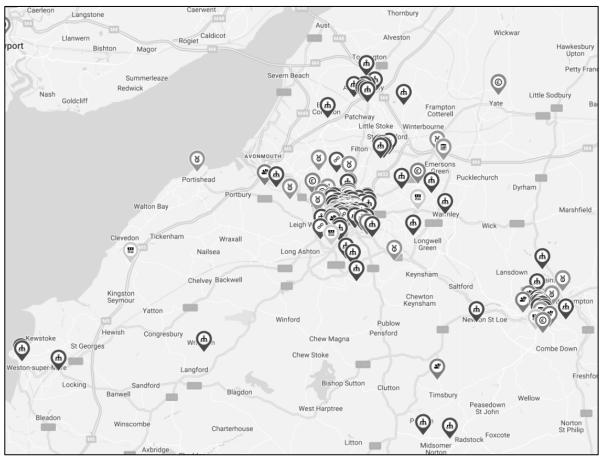


Figure 20: A section of the Scaleup Map with indicators to show supporting institutional elements.

Source: https://scaleupgenerator.co.uk/.

⁵⁶ Scaleup Generator website: https://scaleupgenerator.co.uk/

Robin, the Director of Bristol-based Incubator Z said: "We say everything we do is about [the] West of England, but most of what we do is around central Bristol obviously, because that's where the centre of gravity is." A similar view came from the Alistair, the Director of Incubator Y based on the northern fringe of Bristol: "When I [say] 'region' it probably is the South West ... but generally 90% of that would be Bristol, realistically." These two quotes indicate an element of paying lip service to the idea of a 'regional' entrepreneurial ecosystem that covers the West of England. Non-entrepreneur stakeholders were cognisant of the fact that many of the policymaking and funding decisions around entrepreneurship were regional in character, as part of the transfer of power from Local Authorities to Combined Authorities and LEPs in the early 2010s which moved economic development and business support to be a regional rather than local concern.

The northern fringe of the entrepreneurial ecosystem

The northern fringe is the area north of the city of Bristol around Filton and Stoke Gifford (referenced in Figure 17 and Figure 18), where the Bristol Parkway train station is located, and within easy access of both the M4 motorway (connecting Bristol to London and to Cardiff) and the M5 motorway (stretching from Exeter to Birmingham). Within the northern fringe are a number of significant institutions that play a role within the Bristol entrepreneurial ecosystem, including the Bristol & Bath Science Park and the UWE Frenchay Campus, the latter which houses an incubator for early-stage tech companies. The northern fringe also includes the National Composites Centre and the aerospace cluster, both of which are important to the local and regional economy, but which do not directly play a role within the entrepreneurial ecosystem. For William, who had a directorial role at Incubator Y based in the northern fringe,

"the [entrepreneurial] ecosystem is very much in the [Bristol] city region ... it's quite self-contained as an ecosystem which means probably most people in it have the chance to interact with it." William highlighted that Incubator Y worked closely with other "centres" of entrepreneurship in the city such as Bristol-based Incubator Z and Accelerator S. He did not see these as providing competing offers, in part because of the particular benefits of their different geographic locations as well as the different services that are offered. He continued:

The geography does make a difference, so companies that want to be in the city centre are not going to look necessarily here ... companies that want to be here, close to Parkway station, very close to the motorway junctions, or because they live out here already, or because they want the package of what we offer here.

Therefore, for William, the entrepreneurial ecosystem was Bristol-focussed with a reach into the north of Bristol where UWE and the Bristol and Bath Science Park were both based: "The Science Park ... and ourselves [at Incubator Y] have pulled the centre of gravity [northwards] or have created nodes in [the] north of Bristol."

Perhaps unsurprisingly given his managerial role at Incubator Y located in the northern fringe,
Alistair felt that the entrepreneurial ecosystem included "Bristol and Bristol North ... With some
overlap into Bath." Alistair's assumption was that individuals in comparative incubator
management roles located in Bristol city "wouldn't necessarily include the Science Park [and
UWE] ... [they are] quite city centre centric [in their views]." In an echo of William's comment
about "pulling" the entrepreneurial ecosystem northwards, Alistair said that he and his
colleagues have "made more noise [so] more of them would include us [in the entrepreneurial
ecosystem] now than they would have done a year ago." This implies that this sense of

connectivity between the city centre entrepreneurial ecosystem and the "mini ecosystem" in the north of the city is down to the individuals involved, i.e., relational rather than geographic.

Alistair pointed out the risks inherent in this approach:

I think if we hire someone who is bloody good at running [a] nice office space here, not someone with my [relationship-building] approach, within six months it just basically would be on the outskirts of Bristol again ... You could lose the connection, that could happen very easily and very quickly.

There was a different view from individuals working for institutions located in the city centre.

The Director of Bristol-based Incubator Z said, "we've always tried hard to connect with what's happening in Bath and the Science Park and UWE." However, Alistair felt that Incubator Y, being based in the northern fringe, provided a counterbalance to the city centre concentration of entrepreneurship-supporting institutions. He felt that there was a risk that the city centre institutions could become a "closed shop." He went on to say:

[That could] become intimidating, I don't think that's happened ... we are a very large, almost mini ecosystem of our own in the north of the city [which can] act as a bit of a balance and sounding board to that.

William's comment about pulling the centre of gravity from Bristol city into neighbouring geographies was also echoed by Timothy, Community Manager of Bristol-based Accelerator S. In describing the entrepreneurial ecosystem, Timothy also included the Bristol and Bath Science Park based in the northern fringe, "even though it's a bit of an outlier in terms of where it is." What this comment reveals is that for Timothy, who lived and worked in Bristol city centre, the institutions based in the northern fringe were almost too far away geographically to be counted as part of the entrepreneurial ecosystem, but that despite this geographic hurdle, he

recognised that strategically it was important to maintain those relationships for the sake of having a coherent narrative for the entrepreneurial ecosystem as a whole, and so that each institution could better support and signpost entrepreneurs.

The actual distance between Bristol city centre and the northern fringe is 8 miles, but the main roadways are heavily used at peak times, turning a 15-20-minute journey into a 45-60-minute journey. Public transport links between the two are poor, with the journey by bus taking at least an hour. Connections by rail are better: the Great Western Railway local train from Bristol Temple Meads to Bristol Parkway takes 11-13 minutes, and the Cross Country train service links Bristol Temple Meads and Bristol Parkway in 7-8 minutes. However, that does not include the time to walk to and from the station at each end (it's a 20-25-minute walk from Bristol Parkway to the UWE Frenchay campus, for example). The general perception was that the journey was too long and inconvenient to make by public transport, which adds to the sense of geographic distance.⁵⁷

The inclusion of Bath in the entrepreneurial ecosystem

Whilst all interviewees agreed that the northern fringe was part of the Bristol entrepreneurial ecosystem, there was more divergence in views over the inclusion of Bath. 58 For Michael at

⁵⁷ When I travelled to institutions located in the northern fringe, I did so by biking to Temple Meads Station, catching a local train to Filton Abbey Wood, and walking at the other end. This was always cause for surprise amongst interviewees familiar with both geographic locations: they would always drive or catch a taxi.
⁵⁸ A methodological aside: I did not interview anyone in Bath, which in hindsight displays my own prejudices over

the geography of the Bristol entrepreneurial ecosystem. It also reflects what is argued in this first section: that relational ties between stakeholders in Bristol and the northern fringe were stronger than those between stakeholders in Bristol and in Bath. I was not voluntarily offered any connections or introductions to potential interviewees in Bath, whereas the stakeholders based in Bristol city were quick to offer introductions to their counterparts based in the northern fringe, and vice versa.

WECA, Bath was implicitly included in the entrepreneurial ecosystem as it is located in the West of England. However, William's opinion was quite different: "There's quite a separation between Bristol and Bath, they're quite different cultures ... even just physical access between the two is awful." That William and Michael, two senior figures who both had influence in the region, did not have a common view about the geography of the Bristol entrepreneurial ecosystem reveals the complexity of the issue.

Speaking to practitioners working with entrepreneurs on a day-to-day basis also highlighted conflicting opinions. Timothy, Community Manager within Bristol-based Accelerator S, described the entrepreneurial ecosystem as follows: "I think the community is Bristol wide, I think it even stretches out to Bath as well." On the other hand, Lucy, Community Manager at Bristol-based Coworking D, saw Bristol and Bath as being "quite separate." She went on to say: "I think the Bristol and Bath conundrum is an interesting thing ... When talking about Bristol and Bath, perhaps [they are part of] the same ecosystem but different clusters."

Again, connectivity between the two places proves to be influential: travelling between both places by car can take up to an hour during peak times. The train journey between Bristol Temple Meads and Bath Spa takes 11-16 minutes, so not too dissimilar to the length of time to get to Bristol Parkway, although the former boasts more frequent trains than the latter.

Somewhat paradoxically, although Bath was marginally easier to reach from Bristol than the northern fringe, interviewees felt more strongly connected relationally to the latter when describing the boundaries of the entrepreneurial ecosystem. This was characterised by the way in which interviewees talked about their geographic perceptions of the entrepreneurial

ecosystem, and the differences between how they described their professional relationships with counterparts in Bath compared to those in the northern fringe. Because Bath is part of WECA and the West of England LEP, the 'official' view would imply that Bath is included in the entrepreneurial ecosystem. But this did not bear out in interviews with the non-entrepreneur stakeholders who were active practitioners in the entrepreneurial ecosystem. Stakeholders based in Bristol and those based in the northern fringe mutually referred to each other's projects, programmes, and institutions, indicating that there was a shared sense of understanding that both areas were included within the geographical scope of the entrepreneurial ecosystem. By contrast, comparator projects, programmes, and institutions that were located in Bath were rarely mentioned. This bolsters the argument that the geographic boundaries of the whole entrepreneurial ecosystem are fuzzy, and that they do not cleanly align with the regional boundaries (i.e., the West of England boundaries).

Insights into the geographic boundaries of the entrepreneurial ecosystem

Befitting the amorphous nature of the concept, views on where the entrepreneurial ecosystem was located geographically varied between interviewees, as described in the preceding paragraphs. There is no straight-forward way of establishing the most accurate boundaries of the entrepreneurial ecosystem, which is contrary to the dominant assumption in the literature that an entrepreneurial ecosystem is regional. Interviewees based in Bristol itself and those based on the northern fringe shared a common view that the city centre was the focal point of the entrepreneurial ecosystem, and that from there it stretched out to include other geographic areas in the region. Precisely which geographic areas were included was dependent on many variables: who was being asked the question being just one of those variables. It is

clear from the divergence of views presented that it would be impossible to definitively draw the Bristol entrepreneurial ecosystem on a topographical map. It is possible to conceive therefore that the geographic boundaries of the entrepreneurial ecosystem are individual, context-dependent, and dynamic. They expand to include different geographies at different points in time depending on the projects at hand, the relationships built, and the individuals involved. An example to illustrate this: at the time that I was conducting interviews in 2019, Accelerator S in Bristol was hosting open office hours at different coworking sites around the entrepreneurial ecosystem. These open office hours provided Timothy, Community Manager at Bristol-based Accelerator S, with his first opportunity to visit the Bristol & Bath Science Park located in the northern fringe, despite having been in his role for at least a year. However, Timothy's predecessor at Accelerator S had been a more frequent visitor at the Bristol & Bath Science Park, due to already having established relationships with some of the companies located there.

There are some institutions that are included in the 'official' definition of the entrepreneurial ecosystem but that were not included by practitioners. For instance, WECA and Bristol City Council named themselves as part(s) of the entrepreneurial ecosystem, and indeed are referenced by the ScaleUp Institute and Tech Nation in their reports, but practitioners did not include either public sector body in their own views of the entrepreneurial ecosystem. To complicate matters further, not all entrepreneurial-focussed institutions physically located in Bristol were considered to be 'part of' the Bristol entrepreneurial ecosystem. One interviewee referenced a coworking space located near Bristol Temple Meads train station that was "not very integrated into the [entrepreneurial] ecosystem", despite it being within easy walking

Bristol-based institutions such as Incubator Z or Coworking D. The interviewee went on to say that because of the geographic location of this particular coworking space and the fact that it housed a "cluster of small [and] creative companies", one might assume for it to be part of the entrepreneurial ecosystem: "an outsider might say 'that's part of the ecosystem' [but actually] it's not very well connected … people forget about it because they're not in the networks." This comment reveals the importance of belonging to the 'right' networks. This Bristol-based, entrepreneurship-focussed organisation was *not* considered to be part of the Bristol entrepreneurial ecosystem because the individuals running it were not in the 'right' networks, i.e., the relational ties did not exist. This demonstrates the importance of strong relational ties between institutions and stakeholders in determining the boundaries of the entrepreneurial ecosystem, over and above the significance of whether or not those institutions are geographically proximate.

The insight we can take from this is that the entrepreneurial ecosystem exists more as a relational area than a geographic one. Despite the differing opinions over whether or not the northern fringe or Bath are *geographically* part of the Bristol entrepreneurial ecosystem, the fact that relationships existed between institutions located in these geographic areas lends weight to the argument that *relationally*, they can be considered to be 'part of' the Bristol entrepreneurial ecosystem. ⁵⁹ Despite being at a geographic remove from the implied core of Bristol city, institutions located in the northern fringe and in Bath still fulfilled certain functions

⁵⁹ Although, as portrayed here, the relational ties were stronger between institutions and stakeholders located in Bristol and the northern fringe, than between those located in Bristol and Bath.

or provided certain services that were of value to entrepreneurs who were living and working in the wider Bristol area. Geographic distance between institutions was overcome to some extent by building the relationships between individuals working for those institutions. ⁶⁰ Evidently, relations between Bristol-based organisations and those located in the northern fringe were stronger than with those based in Bath. In the following section, the relational boundaries of the entrepreneurial ecosystem will be explored further, by considering the extent to which entrepreneurs felt that they were 'part of' the Bristol entrepreneurial ecosystem or not.

5.3 Relational boundaries of the entrepreneurial ecosystem

The preceding section highlighted the difficulties in mapping the Bristol entrepreneurial ecosystem as geographic concept, based on the 'official' view of its boundaries, and on the perceptions of non-entrepreneur stakeholders working in the entrepreneurial ecosystem. A tension between these two perspectives was uncovered, leading to the conclusion that while an entrepreneurial ecosystem is fundamentally a geographic concept, it is also a relational and socially constructed concept, and as such, its geographic boundaries vary depending on the viewpoint and relational ties of different individuals. Where section 5.2 focussed on the views of non-entrepreneur stakeholders and their perceptions of the geographic boundaries, this section predominantly brings forward the views of entrepreneurs to explore the relational

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⁶⁰ This is where ecosystem enablers (defined and discussed in Chapter 6) are particularly relevant, as they are the individuals who can help broker and build those relationships between institutions, which bring them closer together relationally, if not physically.

boundaries of the entrepreneurial ecosystem.⁶¹ Certain institutional elements are perceived to be part of the entrepreneurial ecosystem and certain elements are perceived to be outside it — not geographically necessarily, but relationally, based on people's experiences and perceptions.⁶² If it is impossible to 'map' the entrepreneurial ecosystem geographically, it can present difficulties for someone outside of it to know how to access it. This section explores the entrepreneurial ecosystem as a phenomenon that is relationally bounded by entrepreneurs' perspectives and experiences of accessing the support and resources contained within.

Inside (being 'part of') the entrepreneurial ecosystem

In the interviews conducted, entrepreneurs described what they perceived to be 'inside' and 'outside' the entrepreneurial ecosystem. This dichotomy of insideness and outsideness, and the extent to which a person identifies with a place, was defined by Relph (1976) in his book "Place and Placelessness". In this seminal text, Relph shows how the notions of attachment to place, a sense of place, and place identity are intrinsically linked to how place is experienced by real people in real places (Seamon and Sowers, 2008). For Relph (1976), insideness refers to a person feeling safe and enclosed in a place, whereas outsideness is when a person feels alienated or disconnected from a place. The fundamental philosophical point to grasp here is that the same (physical) place can take on different identities for different people. Existential insideness refers to the sense of place and identity that people get when they are wholly

⁶¹ Almost by definition, the non-entrepreneur stakeholders interviewed can be considered to be both geographically and relationally 'inside' the entrepreneurial ecosystem, as more often than not, they had roles working within the key entrepreneurship-focussed institutions located physically within the geographic boundaries of the entrepreneurial ecosystem.

⁶² This idea is developed further in Chapter 7, where the experiences and perspectives of early-stage and later-stage entrepreneurs are compared and contrasted.

immersed in a place, when they feel at home in their community (Relph, 1976). Existential outsideness is its opposite: a sense of alienation from a place. By extrapolating these philosophical concepts of insideness and outsideness to how individuals feel about an entrepreneurial ecosystem, and how they relate to its actors and institutional elements, it becomes possible to understand that the same set of institutions in the same geographic area can be interpreted differently by different people, leading some to feel that they are 'part of' that conceptual place (the entrepreneurial ecosystem) and others to feel excluded from it.

Early-stage entrepreneur Stephen expressed movement in both directions: moving inside the entrepreneurial ecosystem and moving out(side) of it. Reflecting back to when he first started his business, he said, "We were kind of out of that [entrepreneurial] ecosystem for a while, so we went off and did our own thing." Once he and his small founding team had built something more tangible and were in fact more confident in themselves as entrepreneurs, he said that they, "stepped back into that and people took us seriously." This suggests that identifying as an entrepreneur can influence the extent to which one belongs to the entrepreneurial ecosystem. He described the experience of being more concretely 'part of' the entrepreneurial ecosystem as follows:

Suddenly you and your company are the focus of attention, whether that attention is people [who want to] work with you or ... people who are funded to help you, that's what it feels like, rather than being on the periphery.

Over the course of his business journey, Stephen described how he would "dip in and out of" the entrepreneurial ecosystem, and that his association with it depended on "how tightly you bind yourself to it." In this, he expresses that the strength of his attachment to the

entrepreneurial ecosystem waxed and waned depending on who he interacted with and which institutions he accessed. The entrepreneurial ecosystem that he described is relationship-based, not geographic. This idea of the entrepreneurial ecosystem as something that you can be inside or outside of also comes to light in early-stage entrepreneur Ryan's description of it as being a "bubble" that he "doesn't want to be a part of." Ryan's comment demonstrates that for him, the entrepreneurial ecosystem exists conceptually as a tangible 'thing' that exists in real life, but that it is something that he has chosen to be disconnected from. In other words, his sense of identity as an entrepreneur is not wrapped up with his sense of place within the entrepreneurial ecosystem.

Just as the geographical boundaries morph and shift depending on perspectives, so too do relational boundaries. As Stephen's experience demonstrates, a person can be outside the entrepreneurial ecosystem and then move inside it, or in the case of Ryan, one can be cognisant of where 'inside' is and actively choose to be outside of it. While many interviewees were clear about there being an 'inside' and an 'outside' of the Bristol entrepreneurial ecosystem, there is a lack of clarity around where the boundary line is between inside and outside. It appears to be subjective and based on stakeholders' own experiences and relationships.

The entry point to the entrepreneurial ecosystem

Given that the entrepreneurial ecosystem is evidently a concept that one can be 'inside' or 'part of', the question arises of how one accesses it. Colloquially, some interviewees referenced the 'front door' to the Bristol entrepreneurial ecosystem. Having a visible and easily-accessible

point(s) of entry was seen to be especially important in a crowded landscape of business support. Making it as easy as possible for entrepreneurs to navigate the various institutions and support programmes was a primary concern for the non-entrepreneur stakeholders interviewed.⁶³

But how accessible the entrepreneurial ecosystem is in practice is another matter, and the answer differed from person to person. Jennifer, for instance, found that it was difficult to find the support that she needed in the early stages of setting up her business. In describing how she sought out support, she said, "I went out there [to search] ... I put a lot of time in ... I had the luxury of working part-time [so] I had enough time to [attend events] ... I had to hunt for them." Her issue was twofold, she did not know what was available and she did not know where to look. She contrasted her experience with "the people who know what's going on ... [people who] are in a niche [or] in a clique." With this comment, she was referring to a lot of the individuals who were associated with the entrepreneurial ecosystem. Jennifer went on to say, "If you are outside the clique, you have no idea ... the tech clique: once you are in it, you know all the events [and] all the stuff. Outside of it you have no clue what is going on." Describing her own experience of being part of several different accelerator programmes, she said, "once you are in the ecosystem then you get transferred [i.e., from one programme to another] but getting in and knowing the vibe [is difficult]." Again, Jennifer raises this issue of being inside or being outside the entrepreneurial ecosystem and describes the knock-on effect

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⁶³ This is where the impetus comes from to create schematic diagrams as discussed in Chapter 3. Specifically in the case of Bristol, creating a map of the 'scale up support ecosystem' was a key output for the Scale Up Enabler role that was collaboratively funded by one of the Incubators, the Chamber of Commerce, the LEP, and the University of Bristol (see previous reference to the Scaleup Map in this chapter, Figure 20, page 195).

that being outside of it had on her ability to find the support that she needed as an entrepreneur.

Mark was the regional representative for a national investment firm. He held regular office hours at an incubator in Bristol to meet with entrepreneurs who were interested in finding out more about investment. His opinion was that the entrepreneurial ecosystem should be something where, "you don't need to work hard to get into it, and once you're in you're in ... the ecosystem accepts you ... without getting or asking for anything in return." However, his view of the entrepreneurial ecosystem in Bristol was that it was something of a "closed club" where entrepreneurs struggled to meet investors unless they were already well networked. His efforts to host office hours and to be a visible presence in the entrepreneurial ecosystem was an attempt to open up what he perceived to be a closed club, and to ensure that information and connections between entrepreneurs and investors flowed more easily.

One non-entrepreneur stakeholder who was very well embedded and well networked by the time I interviewed her in 2019, recounted her experience of moving to Bristol in 2016. Her experience was that it was, "very difficult to penetrate [the community] and understand what the infrastructure really was, [and] who's here to support me." She cited a "huge degree of opacity" which makes it hard to find out what's going on, whether that's investors looking for investment opportunities or employees looking for an employer.

The extant literature, with its focus on describing the institutional elements, fails to pinpoint how entrepreneurs and potential entrepreneurs move from being outside to being inside the

entrepreneurial ecosystem. The literature recognises that there are certain aspects of the entrepreneurial ecosystem, in particular investment, where 'going in cold', i.e., without a warm introduction, will not be as effective (Mason and Brown, 2014). But there does not appear to be much discussion about how entrepreneurs access an entrepreneurial ecosystem and start to consider themselves to be part of it. What these findings demonstrate is that the notion of place attachment and the strength of relational ties can influence the degree to which an entrepreneur feels 'inside' or part of the entrepreneurial ecosystem. This adds weight to the argument running through this chapter, that whilst geographic proximity is of course important for a place-based entrepreneurial ecosystem, it is the relational ties between individuals that give it its shape.

Outside (being or feeling excluded from) the entrepreneurial ecosystem

The preceding section considered the entrepreneurial ecosystem as relationally bounded, with a definitive 'inside' and 'outside'. It was highlighted that the literature does not identify the 'front door' to the entrepreneurial ecosystem, through which entrepreneurs can gain access to the support and resources on offer. The following pages explore perspectives from 'outside' the entrepreneurial ecosystem. Here, I delineate the viewpoints from entrepreneurs who felt that they were excluded from the Bristol entrepreneurial ecosystem. This sense of 'outsideness' is considered across three dimensions: economic, gender, and ethnicity. Across these three dimensions, the intention in the following sub-sections is not to analyse the effectiveness of interventions to remedy what was causing a sense of exclusion, rather the aim is to highlight that one (or more) of these three aspects can be a reason for certain people to be (or to feel) excluded from the Bristol entrepreneurial ecosystem.

Economic exclusion

At the time this fieldwork was conducted in 2019, the 'inclusive economy' and 'inclusive growth' were well-rehearsed priorities for economic development policymakers both nationally and regionally (Lee, 2019). The Industrial Strategy White Paper was published towards the end of 2017, setting out the then Prime Minister Theresa May's strategy for economic growth and development. Although the term 'inclusive' only appears four times in the White Paper, the idea of an inclusive economy and inclusive growth trickled down to regional policymakers in the development of their own Local Industrial Strategies (LIS). The West of England published the Evidence Base for their own LIS in February 2019, and published their final LIS paper in July 2019, with a clear emphasis on inclusive growth. The term 'inclusive' appears 34 times in the West of England LIS, and "ensuring that economic growth is inclusive" was stated to be "at the heart of the West of England's ambition and vision for the region's future" (HM Government, 2019).

This same terminology of inclusive growth was used unprompted by a number of interviewees when asked about the boundaries of the entrepreneurial ecosystem, and who was included or excluded from it. Shaun, Director of Entrepreneur Network 1, described how this terminology had trickled down from the official line to practitioners within the entrepreneurial ecosystem:

In the last couple of years [the] focus has been very much on inclusion across the city from an economic perspective ... and that has certainly had an impact on the way we talk about it.

Similarly, Robin, CEO of Incubator Z, described how the language around inclusivity had shifted over the years, although he suggested that the activities and ambition had always been the same:

I didn't really understand all this inclusion stuff because that wasn't the language then, but I've always thought that you have to be more relevant to more different communities in some form.

Timothy, Community Manager for Accelerator S, opined that the boundaries of the entrepreneurial ecosystem were economic. He implied that access to the entrepreneurial ecosystem was easier for those who were well-networked and who were not from an economically impoverished background. His view was that:

The majority of the people in this ecosystem are relatively well paid [and] come from relatively secure backgrounds ... if you have money, you have access to a network which means that you have an 'in'.

Barriers to inclusion on economic grounds were often for the very practical reason of whether or not an individual could afford to take part in the activities on offer within the entrepreneurial ecosystem. At the lower end of the cost scale, there were certain membership bodies and events that charged for attendance, which would often put those events out of reach for many people. Jennifer, the founder of a small social media agency, believed that this was a deliberate strategy to ensure that certain networks remained exclusive (and exclusionary).

Echoing Timothy's comments about economic exclusion, Jennifer spoke about the different values that different people place on wealth. For instance, she described the "fear" of taking

out a loan to get a new laptop: "It was a two grand loan, it was the longest decision of my life." She contrasted this with conversations overheard in Accelerator W, "where everyone there is talking about millions [of investment raised]." This disparity left her with a sense of imposter syndrome: the feeling that someone like her, in a more economically precarious situation than many, did not really belong in the Bristol entrepreneurial ecosystem. The way that accelerator programmes are structured can unintentionally lead to people being excluded. For instance, many accelerators hold training sessions Monday to Friday during working hours. The assumption is that individuals accessing their support will be working on their business idea full-time. But as Jennifer highlighted, "a three-day [accelerator] workshop is like £300 for me time wise", meaning that in order to take part in a workshop offered by an accelerator programme, she would have to forego working chargeable hours of her own time.

At the higher end of the cost scale were privately-run training courses to teach people how to code, often running into thousands of pounds. These 'bootcamps' sell the promise that by paying up-front for this technical training, the newly upskilled individual will be able to command a higher salary within a tech or digital firm. But this approach depends on that individual having a significant level of disposable income to cover their costs whilst training, and to cover the costs of the course itself. This is unaffordable by the vast majority, meaning that paid-for training courses can be another barrier to entry to individuals who want to work in the entrepreneurial ecosystem. Emma, the coordinator for a 'women in tech' network, gave the stark example that the "ten thousand pounds" that such a course might cost would mean that someone would not be able to work for three months, and "as a single mother with three kids, [with those costs], the kids are dead by the end of three months because she can't feed them."

Entrepreneurship was seen as one of the ways to bridge the gap between richer and poorer areas of the city and region. In the West of England LEP Strategic Economic Plan 2015-2030 (2014), under the heading 'Social Inclusion' is the following statement: "We recognise the power of enterprise, self-employment and start-up activities in providing local people with the skills, knowledge and finance they need to build successful businesses." There was an acknowledgement from the public sector that they could and should play a role in ensuring that entrepreneurship and business support in the area was available to all potential entrepreneurs. To this end, Michael, who held a senior role at WECA, spoke about the importance of "get[ting] out to harder-to-reach communities" and "encouraging more broad base entrepreneurship [support] which is more bottom-up and citizen-led." Michael also recognised that the business support offer provided by WECA via the West of England Growth Hub was not immediately visible and accessible to all. To combat that, the Growth Hub was running pop-up business support clinics in different areas of the region. There were also efforts by a number of the private sector institutions active in the entrepreneurial ecosystem to extend their offer to hardto-reach communities. For instance, Incubator Z and Accelerator S in Bristol both had programmes that actively sought to include potential entrepreneurs from economically deprived areas of the city. In a similar vein, a network of young entrepreneurs charged a very low monthly fee for a range of services and events because they wanted to "reduce the barriers to entrepreneurship and [to] building your own business", in the words of the network's cofounder, Susan.

Economic inclusion was evidently a topic that many people were cognisant of, and there was widespread awareness of the various initiatives designed to bring people into the

entrepreneurial ecosystem and to lower those barriers to entry. That being said, there was the parallel recognition that the tech industry more widely struggled to attract a diverse range of people. One interviewee bemoaned the vast array of 'outreach' style activities saying, "the sector would benefit from a more joined up approach ... everyone is doing their own thing." Another interviewee took a more critical approach of the various economic inclusion programmes. His view was that a lot of the costs were swallowed up in administration rather than in encouraging economic participation from disadvantaged communities: "You pay for my service and I pay for yours, or pay for my service and I can afford a house ... that's what economic inclusion is." Across a wide selection of interviewees, an individual's personal economic circumstances were perceived to be a potential barrier to their inclusion in the entrepreneurial ecosystem, thus exacerbating their sense of 'outsideness'.

Gender exclusion

The tech sector in general in the UK has suffered for many years from a lack of gender diversity (*The Alison Rose Review of Female Entrepreneurship*, 2019). Within the literature on entrepreneurial ecosystems, it is presumed that entrepreneurs have equal access to resources available. However, it has been shown that female entrepreneurs are at a disadvantage at individual, organisational, and institutional levels (Brush *et al.*, 2019). Female founders in the UK struggle to raise investment (British Business Bank, 2019), despite data pointing to diverse founding teams having more success in the long run (Gompers and Kovvali, 2018).

This national picture was corroborated by the experiences of entrepreneurs in Bristol. Startup founder Ryan talked about successful meetings that he had had with investors which he put

down to being able to, "talk their language because I used to be a lawyer ... I'm a man, I can wear my smart jacket and it's fine." He recognised that this was not everyone's experience: "I know that [for] female founders, the general attention span for them [from investors] is lower." Another entrepreneur, Graham, was frank about the fact that his board consisted entirely of white men and confessed that this was something he wanted to change. Drawing on the history of the Bristol entrepreneurial ecosystem, William, a senior academic at one of the universities, noted that it was not wholly inclusive right from the early days, and that this was having ripple effects today. He said that it was not an active decision to be exclusionary, rather that it was a by-product of the 'founders' of the entrepreneurial ecosystem all being white men. William described a recent event which brought together investors: "It was great, we had these really important people with loads of money from different places ... [but] there was only one woman in the room."

There were a few initiatives in Bristol that were aiming to address this lack of gender diversity. Melanie, the founder of a recruitment agency, organised a regular meetup that celebrated women in tech, and also created an online platform to recognise the local companies that were particularly successful at attracting and retaining female talent. At her events, women were invited to share their stories of how they ended up working in tech or entrepreneurship. She said:

I wanted to ... share [and] promote the stories that are going on in the South West, to inspire others, whether they be career changers, whether they be young girls and boys who want to get into the industry, or people who are returning to work and have been out for a little while.

Melanie's self-proclaimed mission was "to make Bristol the most diverse city in terms of tech by the end of 2025."

Another female-focussed tech networking organisation had the aim of getting women into tech jobs in startups or scaleups, either women who were returning to work after an absence (most often for childcare reasons) or who were looking to move into tech and entrepreneurship from another field. Part of this organisation's remit was to host events aimed specifically at women, as Emma, the main organiser of the group described it:

We have a duty of care that [our events] are primarily [for] women. If it ends up that there are too many men, then we might as well be any one of the other meetups which seem to be primarily men.

She described one of the popular tech meetups in Bristol as being attended predominantly by men, and her assessment of it was that it was not welcoming to women: "We went and there were literally three women huddled in a corner, with men trying to sell stuff to them." Emma described how her organisation tried to act as the 'interface' between the tech industry and women who were looking for jobs. She described how her contacts working in senior roles in tech startups and scaleups were frustrated by the lack of women applying for the roles that they advertised and spoke about how they approached her for advice. This led her to start a dual service of a) advising tech companies about their culture and how they could be more welcoming to women, and b) running training sessions for women returning to work and then matching them with suitable roles. Emma also advised women in technical roles on the salary level they should expect. She described the case of one woman who had been working for a company for 13 years who, in Emma's words, "had written the whole architecture, and they

had her at a mid-level [developer] ... [she was being] underpaid by £20k." The picture painted by Emma was quite stark: she perceived that the tech industry as a whole, and the Bristol entrepreneurial ecosystem specifically, were both dominated by men. Her view was that women needed to form their own support networks in order to navigate it: "Although you have got the incubators which are great, you need a support network of women that you can trust." Emma used the word trust frequently, implying that women could only trust other women, and that access to the entrepreneurial ecosystem was stacked against them. Emma's damning assessment was unique amongst interviewees, even amongst those who were concerned with increasing gender diversity in tech and entrepreneurship.

One might expect that Emma would welcome other similar initiatives into the entrepreneurial ecosystem, but she derided two similar women-focussed programmes as "tick box exercises." As in most things in life, there are always two sides to every story, and in return, the organisation that Emma headed up was not always well spoken about by some of the people leading those other initiatives. Indeed, one entrepreneur interviewed said the following about Emma's organisation: "Every time I see their branding on companies I [think that] that company is just ticking a box, they are not doing anything." Another interviewee said about this same organisation that, "they weren't the kind of group I wanted to associate with ... I went to a lot of their meetings, and it was a male-bashing set-up and environment [which] didn't sit right with me." This conflict between organisations and initiatives that ostensibly have similar aims may appear to be futile, but it speaks to the passion and conviction that certain non-entrepreneur stakeholders had to change the status quo, and to ensure that the Bristol

entrepreneurial ecosystem had a more equal gender balance that was reflective of the general population.

BAME exclusion

Alongside economic status and gender, there is a third aspect that came out strongly in the data analysis and that is Black and Minority Ethnic (BAME) diversity and inclusion. Bristol is a diverse city, with the proportion of the population who are not 'White British' standing at 22% (Bristol City Council, 2020). The majority of my interview participants were white British, and although it was not a direct interview question or planned topic, nearly all interviewees referred to the fact that the entrepreneurial ecosystem was not very diverse, and not very representative of the city's population. It was acknowledged that this lack of (visible) ethnic diversity could make the entrepreneurial ecosystem seem unwelcoming. As one of the non-entrepreneur stakeholders put it:

There's a perception of clique-iness ... and that feels worse if you're Black or from an [impoverished] part of the city ... or from a background where you're not already in that set, and perhaps you don't have those networking skills, and there's nobody else who looks like you or sounds like you in the room.

From this awareness had arisen several initiatives that aimed to make it easier for BAME individuals to access the entrepreneurship support that they needed. Entrepreneur Network 1 had set up a six-month pilot project for BAME individuals specifically selected from deprived communities, whereby they would be provided with mentoring and training, and introduced to contacts within the entrepreneurial ecosystem. As Shaun, the Director of Entrepreneur Network 1 described it, "the programme is for anyone who's not a middle-class, middle-aged,

white man ... we help them along their journey from ideation to having a business." Accelerator S was also vocal about its activities to support entrepreneurs from diverse backgrounds and offered bursaries to BAME founders so that they could access the accelerator's business support workshops and entrepreneur networks. The leadership team of Accelerator S recognised the lack of diversity in the tech sector and had put equality and inclusion at the core of their strategy.

What both of these initiatives demonstrate is that incumbents within the Bristol entrepreneurial ecosystem were conscious that although they were 'inside' the entrepreneurial ecosystem, many others were 'outside' it. These initiatives aimed to open the doors of the entrepreneurial ecosystem so that 'outsiders' could participate fully in the activities that were already offered within the entrepreneurial ecosystem. Carl, a senior employee within Bristol City Council's economic development team described how things were starting to change thanks in part to these types of initiatives:

The Black entrepreneurship debate in the last year has shown that there are blockages and there are barriers, [but] I go to networking events and I see Black entrepreneurs there and [I believe that] those barriers are being removed. They are being made to feel welcome, and not just in a tokenistic way, but [by] being involved in stuff that they weren't before ... either [because] they didn't know about it or they weren't invited.

As well as institutions and individuals within the Bristol entrepreneurial ecosystem being aware of efforts to remove barriers to BAME participation, there was another approach being undertaken in Bristol: for the BAME community to self-organise and source their own entrepreneurship support and provision. The Black South West Network (BSWN) is a long-running advocacy and community-led organisation to promote economic inclusion and improve

race equality in the South West.⁶⁴ Jennifer, the founder of a social media marketing agency, described how she had stepped in to advise BSWN on their activities to support Black entrepreneurs, as they were keen to learn from her experience taking part in Accelerator W. Jennifer described it as follows:

[BSWN] are trying to build a business network and build support and services for the BAME community because [...] some of the aspects involved [like loans and finance] are viewed differently [by BAME people compared] to the majority of people that run accelerators ... So, because I've had all this accelerator experience, I'm helping them shape ... what a BAME Accelerator would look like.

In this instance, the 'outsiders' to the Bristol entrepreneurial ecosystem self-organised their own provision to support other 'outsider' entrepreneurs. The intention was for this support to exist externally to and alongside the dominant entrepreneurial ecosystem, adding weight to the notion that the Bristol entrepreneurial ecosystem exists as a relational and socially constructed concept as much as a geographic phenomenon. The motivation for this approach originated in the view that the existing entrepreneurship support did not meet the needs of the Black and Minority Ethnic community. As well as developing a BAME-specific accelerator programme, BSWN had also pulled together multiple partners to develop a concept for an incubation hub for BAME enterprises. Bristol Council was one of these partners, and in the view of Carl, this incubator would be modelled in part on Incubator Z so that it would provide:

The networking ... a good environment for exchange [and] for collaboration so it's not doing something completely different ... but we never had ... a large area of workspace specifically targeting BAME enterprises.

⁶⁴ See: https://www.blacksouthwestnetwork.org/.

Deborah, the programme manager at Accelerator W, thought that this was a positive development, and told of her plans to partner with BSWN on programmatic activity, including running a pre-accelerator for BAME entrepreneurs. Clearly, exclusion due to ethnicity was an issue that entrepreneurs and stakeholders were aware of, and there were efforts to remedy this, led by both incumbents to the entrepreneurial ecosystem and by those who were (or who felt) outside of it.

The individuals who felt that they were 'outside' the entrepreneurial ecosystem held two concurrent positions. Physically, they were 'inside' (within) the geographic boundaries of the entrepreneurial ecosystem, but relationally they were (or feel that they were) outside it.

Although entrepreneurial ecosystems have a physicality about them in the sense that incubators, accelerators, and coworking spaces all are housed within buildings located in a particular geographic area, what the evidence shows is that without some prior knowledge, relationships, or networks, it is not necessarily a straight-forward task to find out how or where to access relevant support. What these findings demonstrate is that accessing the support provided from institutions within an entrepreneurial ecosystem is as much about the relationships, social capital, and networks as it is about the physical place(s).

5.4 Reflecting on place and space in entrepreneurial ecosystems

The purpose of this final section of the chapter is to relate the findings described in sections 5.2 and 5.3 of this chapter to the conceptual model that was introduced in Chapter 3 which shows

the entrepreneurial ecosystem as a 'whole' comprised of three concentric layers. Figure 21 below shows the conceptual model again.

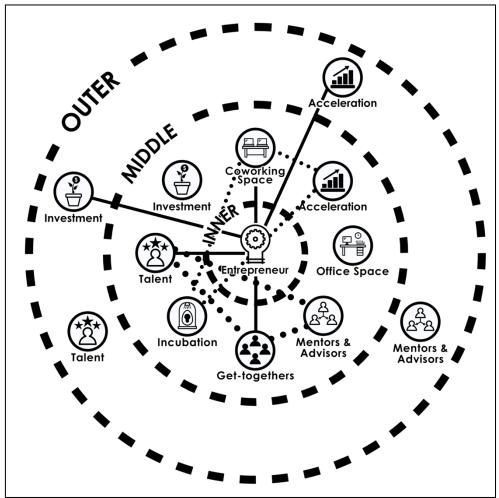


Figure 21: A conceptualisation of an entrepreneurial ecosystem comprising three layers.

Source: author's own diagram.

The research question that was posed at the start of this chapter invited an investigation into the spatial dimensions of the entrepreneurial ecosystem, with a particular focus on identifying its boundaries. As described in Chapter 3, there are two lenses through which to understand an entrepreneurial ecosystem: the schematic diagrams (policy-led), and the institution-led frameworks (academic-led). Both have limited value as heuristic tools when considering how to answer this research question. A schematic diagram (such as the West of England Growth Map

presented in Chapter 3, Figure 12, page 123) certainly helps in a quest to understand the geographic boundaries of an entrepreneurial ecosystem: by plotting the location of entrepreneurship-supporting institutions, it is easy to see where there are clusters of activity within a geographic area.

However, what is lacking in this approach is the ability to depict the relationships between institutions, or indeed between entrepreneurs and institutions, and as this chapter argues, it is those relationships which are most important. The institution-led frameworks are similarly limited in their ability to explain the spatial dimensions and boundaries of an entrepreneurial ecosystem. None of the institution-led frameworks that were outlined in Chapter 2 (Figure 4 to 9, pages 67 to 69) give any indication as to how we might understand or visualise the geography of an entrepreneurial ecosystem. The strength of the institution-led frameworks comes in identifying the institutional elements of an entrepreneurial ecosystem, but not in physically locating those institutional elements within a region or in showing the geographic boundaries of that region. Nor do the institution-led frameworks help us to visualise the relational boundaries: they cannot help us to identify what (or who) is inside or outside the entrepreneurial ecosystem. It is impossible to use the institution-led frameworks to demonstrate theoretically what this chapter shows to be true empirically: that the physical distance between an entrepreneur or stakeholder and a particular institution might be far, but that the relational ties bring them close together.

The proposed conceptual model provides a new lens through which to understand the spatial dimensions and boundaries of an entrepreneurial ecosystem. It can also be used to depict

occasions when *geographic distance* and *relational proximity* occur simultaneously. This chapter has demonstrated that relational ties are just as important as geographic proximity in defining and delineating the boundaries of an entrepreneurial ecosystem. The layers within the conceptual model (Figure 21, page 223) represent the spatial dimensions of the entrepreneurial ecosystem, with the outer layer referring to institutions which are outside the immediate geography of the entrepreneurial ecosystem, and the middle layer referring to geographically proximate institutions. The solid connecting lines represent the relational ties between entrepreneurs and institutions. Thus, this conceptual model provides us with a diagrammatic representation of the complex nature of an entrepreneurial ecosystem's geographic and relational boundaries, and allows us to visualise the scenarios presented in this chapter whereby an entrepreneur might be geographically 'inside' the entrepreneurial ecosystem but relationally 'outside' of it, if there are no relational links to the institutions in the middle and outer layers.

5.5 Conclusion

This chapter opened with the following research question (RQ1): "What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?". Although the entrepreneurial ecosystems literature has concerned itself with issues of scale and boundaries, the spatial dimensions of entrepreneurial ecosystems are under-theorised (Schäfer, 2021). The empirical evidence shows that mapping the geographic boundaries of an entrepreneurial ecosystem is complex. Perspectives vary over the exact geography covered by Bristol entrepreneurial ecosystem, with tensions between the 'official' view, and the view of

practitioners. While there are certain entrepreneurial support institutions that are geographically located within Bristol and its environs, not all of them are considered by stakeholders to be 'part of' the entrepreneurial ecosystem. Moreover, there are institutions that are not geographically located within Bristol and its environs but that play a role in supporting Bristol-based entrepreneurs. Not everything can be clustered together geographically, and for an entrepreneurial ecosystem, that lack of immediate geographic clustering appears to be something that can be overcome through relationship-building. Physical proximity is not the be-all-and-end-all of regional entrepreneurial support: what appears to matter just as much, if not more, is the role that a particular institution plays within the entrepreneurial ecosystem and the relationships forged between individuals working for those institutions. What emerges from an analysis of the empirical material is a geography that is individually constructed and determined by relational ties.

Using Relph's (1976) definitions of insideness and outsideness, and building further on this idea of relational ties, this chapter explored perspectives from entrepreneurs who felt part of the entrepreneurial ecosystem, and those who felt excluded from it. Exploring whether entrepreneurs felt that they were 'inside' the entrepreneurial ecosystem or not led to a discussion about its 'front door' and its accessibility. For some entrepreneurs, the entrepreneurial ecosystem exists as a concept, but not one that they can (or are willing to) access. The sense of 'outsideness' was explained by looking at exclusion from the entrepreneurial ecosystem across three dimensions: economic, gender, and ethnicity. Similarly to geographic boundaries, the relational boundary line between 'inside' and 'outside' the

entrepreneurial ecosystem appears to be individually constructed and influenced by relational ties.

This chapter then used the conceptual model introduced in Chapter 3 in order to synthesise this new understanding of geographic boundaries and relational ties. This model helps us to better define 'inside' and 'outside', in both geographic and relational terms. With an understanding of an entrepreneurial ecosystem as a layered whole, it becomes possible to envision geographic boundaries and relational ties concurrently. Entrepreneurial ecosystems are a place-based phenomenon, but they are also formed by, and comprised of, people and relationships. As a result, the boundaries and scale of an entrepreneurial ecosystem can change shape according to which relationships are formed, when, and by whom. What this debate about geographic scale and boundaries illuminates is that the boundaries of the entrepreneurial ecosystem are as much defined by its relational ties as by its geography, if not more.

The significance of these findings in practical terms is that policymakers and institutions need to constantly assess the accessibility of their services. It is not enough to 'build it' and hope that everyone will come. Just because a geographic region has a certain number of incubators and accelerators and coworking spaces does not mean that the entrepreneurial ecosystem is accessible to all the entrepreneurs and potential entrepreneurs in the same geographic area. Theoretically, the relevance of these findings is to contribute towards a more holistic understanding of the entrepreneurial ecosystem from the point of view of how it is socially constructed. An entrepreneurial ecosystem undeniably 'exists' geographically, but the

institutional elements within it, and the links between them, are personalised to the individual and what they need. Understanding the analytical aspects of space, in particular scale, borders, centre, and periphery, can move us closer towards understanding the mechanisms within entrepreneurial ecosystems.

CHAPTER 6. Introducing 'Ecosystem Development Work' and defining the role of ecosystem enablers

6.1 Introduction

This chapter responds to RQ2: "What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?". This research question is firmly rooted in contemporary debates in the literature about the causal mechanisms within entrepreneurial ecosystems, and the findings outlined here respond to two gaps in the literature. The first gap relates to deepening our understanding about how the institutional elements within an entrepreneurial ecosystem coalesce to create the environment for productive entrepreneurship (Brown and Mawson, 2019; Wurth, Stam and Spigel, 2021). An analysis of interviews with entrepreneurs and non-entrepreneur stakeholders in Bristol reveals that there are four streams of activity which contribute to the functioning of the entrepreneurial ecosystem. I introduce the new terminology of 'Ecosystem Development Work' (EDW) to refer collectively to these four streams of activity, and it is the suggestion of this chapter that this work is pivotal to the ongoing development of the entrepreneurial ecosystem. The second gap relates to intermediaries and ecosystem actors: in the extant literature, this role is not clearly defined nor is the full extent of this role explored. In order to fully respond to the research question, this chapter identifies the people who carry out EDW. These individuals, who I refer to using the new terminology of 'ecosystem enablers', play an important role by ensuring that entrepreneurs are accurately signposted within the

entrepreneurial ecosystem, and by joining up the dots between the institutional elements thus helping them to coalesce.

This chapter is organised into four sections. The opening section identifies the four streams of activity that comprise EDW and describes how they are manifested in the Bristol entrepreneurial ecosystem. The four streams of EDW activity are: making introductions and signposting entrepreneurs; facilitating networks and creating communities; easing information flows between institutions; and constructing the identity and narrative of the entrepreneurial ecosystem. The first two activity streams (making introductions and signposting entrepreneurs; and facilitating networks and creating communities) are recognisable from the existing literature. It is broadly agreed that this work to connect entrepreneurs with each other and build networks is vital for both the entrepreneurs themselves, but also for the connectivity within the entrepreneurial ecosystem. The third and fourth activity streams (easing information flows between institutions; and constructing the identity and narrative of the entrepreneurial ecosystem) are not explicitly articulated in the existing literature. Grouping these four tasks together as EDW is a novel approach which advances our understanding of the mechanisms within entrepreneurial ecosystems.

The second section of this chapter turns to consider ecosystem enablers. The empirical evidence from Bristol shows that these non-entrepreneur stakeholders play a key role in the entrepreneurial ecosystem by carrying out some or all of the EDW activities identified. An analysis of the interviews conducted shows that ecosystem enablers share certain attributes: they are trusted, they enjoy a high level of social capital, and they are embedded. This section

also identifies that some ecosystem enablers are paid to carry out EDW via formal employment within an entrepreneurial ecosystem facing role, whereas other ecosystem enablers are unpaid and undertake EDW voluntarily.

The third section of this chapter makes the case that EDW and the role of ecosystem enablers are 'invisible' to entrepreneurs, and to a lesser extent, to policymakers. It is suggested that this invisibility can lead to EDW and ecosystem enablers being under-valued, which could have potential negative implications for the ongoing development of the entrepreneurial ecosystem.

The fourth and final section of this chapter returns to the conceptual model introduced in Chapter 3 to depict two of the EDW activity streams (facilitating networks and creating communities; and easing information flows between institutions). This exercise demonstrates the institutional-level relationships that are important within an entrepreneurial ecosystem, and further emphasises the importance of the ecosystem enabler role.

This chapter extends our understanding of the processes and people that make an entrepreneurial ecosystem function in three ways. First, by uncovering EDW activity, it is possible to see how institutions coalesce within an entrepreneurial ecosystem, and how entrepreneurs are connected to networks and signposted to appropriate support. Second, the identification of ecosystem enablers and their attributes builds upon the concepts of dealmakers (Feldman and Zoller, 2012) and bridging assets (Mason and Brown, 2014), and more thoroughly integrates this literature on intermediaries with the literature on entrepreneurial ecosystems. Third, the suggestion that these processes and people are

'invisible' is shown to have potential implications in terms of ongoing entrepreneurial ecosystem development. This chapter contributes to the thesis by opening the 'black box' of the Bristol entrepreneurial ecosystem to identify the mechanisms that contribute to its functioning. Understanding the processes within entrepreneurial ecosystems, and defining the people who carry out those processes, deepens our theoretical understanding of the concept, and provides practitioners and policymakers with the knowledge and tools to make impactful interventions.

6.2 Defining Ecosystem Development Work

This first section outlines four streams of activity which make up Ecosystem Development

Work. EDW refers to the processes which contribute to the functioning of the entrepreneurial
ecosystem. These four processes are: making introductions and signposting entrepreneurs;
facilitating networks and creating communities; easing information flows between institutions;
and constructing the identity and narrative of the entrepreneurial ecosystem. In the following
pages, each process is described in turn, moving from the micro interactions with individual
entrepreneurs, through to the macro activities that operate at the scale of the entrepreneurial
ecosystem as a whole. Throughout this section, I lean on examples drawn from the empirical
fieldwork in Bristol, to illustrate how these processes are enacted in context.

Making introductions and signposting entrepreneurs

Fundamentally, we know that entrepreneurs need access to support, resources, networks, and information, in order to grow their businesses (Florida and Kenney, 1988; Lichtenstein and

Lyons, 2001; Anderson and Jack, 2002; Motoyama, Watkins and Knowlton, 2014; Miller and Acs, 2017). This stylised fact is at the heart of much of the continued interest in entrepreneurial ecosystems: the implication is that an entrepreneurial ecosystem which provides easy access to relevant support, resources, networks, and information will enable entrepreneurship to flourish. But having the resources available within the entrepreneurial ecosystem is not the same as being able to access them (Spigel and Harrison, 2018): entrepreneurs also need to be able to navigate the entrepreneurial ecosystem to find what they need. The existence of the Bristol Scaleup Map (Figure 20, page 195, Chapter 5) and the West of England Growth Map (Figure 12, page 123, Chapter 3) speaks to an effort to democratise access to information within the Bristol entrepreneurial ecosystem: the idea being that entrepreneurs can "more easily identify the available services and programmes" (Scaleup Generator, 2018).

There is often a poor understanding amongst entrepreneurs about locally available growth-related programmes (Brown, Mawson and Mason, 2017), and this is where personalised introductions can be particular helpful. In Bristol, there was agreement amongst all interviewees that both individual entrepreneurs and the wider entrepreneurial ecosystem benefit if introductions are freely made, as mentioned by Isobel and Catriona, who both held entrepreneur-facing support roles in Bristol:

The ecosystem generally does better if everybody just makes intros and talks to each other.

I view it very much as being collaborative and informing each other and making sure that we're all comfortable saying... "actually, I think this entrepreneur could really benefit from meeting up with you or accessing your support." When entrepreneurs were asked in their interviews about specific individuals who had made introductions or signposted them to support, the same names recurred. These individuals were described as being "a real credit to the city" by later-stage entrepreneur Natalie. They were the people who had made relevant introductions for entrepreneurs at pivotal points in the growth of their companies.

Openness and collaboration were recurring themes in the interviews. Non-entrepreneur stakeholders in particular prided themselves and others on their willingness to make useful introductions. There was one interviewee working in an entrepreneur-support role, who, in contrast to others, suggested that this openness was something of a façade, indicating that it was something that Bristolians liked to say about themselves but not actually go through with. He contrasted the Bristol entrepreneurial ecosystem to his experiences elsewhere in the world, highlighting other entrepreneurial ecosystems around the globe where he said that investors had an open line to anyone who wanted to meet them. In making his point, he referred to a key individual in Bristol as, "the one person who connects everybody", implying that there is fragility in an entrepreneurial ecosystem that is reliant on a few key people to make introductions. This view is echoed in a report on the Bristol-Bath innovation cluster which highlights the need for 'the next generation' of key connecting individuals to step forward to ensure that networking opportunities continue (Green and Doel, 2018).

As well as targeted introductions and personalised signposting, there were also examples of serendipitous meetings that occurred without relying on a formal introduction being made.

Extended and well-connected networks that are easy to access are key for this type of

introduction (Walker, Kogut and Shan, 1997). William, who held a senior role within UWE, described this as follows: "Some of it's just about social interactions among people who are mates ... some of it is social, some of it is social-cum-business, [and] some of it will happen naturally." This brings us to the second activity stream within EDW, which is facilitating networks and creating communities.

Facilitating networks and creating communities

The literature makes it clear that being part of – or having access to – a network within an entrepreneurial ecosystem is important for entrepreneurs as it can provide opportunities to seek support (Audretsch, Belitski and Cherkas, 2021), share information (Auerswald and Dani, 2017; Stam and Spigel, 2017), or forge new relationships with mentors and other entrepreneurs (Motoyama, Watkins and Knowlton, 2014; Mack and Mayer, 2016). Networks are created and solidified through people getting together in person, in particular in innovative and creative communities (Storper and Venables, 2004). Events and meetups are similar in that they provide opportunities for entrepreneurs to get together, form or consolidate networks, share information and experiences, and learn. During the course of the fieldwork, the terms were used almost interchangeably by interviewees, but there were some observable differences in how and when each term was predominantly employed, as described in the following pages.

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⁶⁵ Whilst online events certainly have become much more commonplace since the coronavirus pandemic, this fieldwork took place in 2019 and therefore I shall be referring only to in-person get-togethers. Indeed, the experience of entrepreneurs at the height of the 2020 coronavirus pandemic was that they were unable to expand their networks through online-only events (ERICC Report, 2021), thus indicating that online-only events cannot be considered as an equivalent to in-person.

Meetups were usually loosely organised by a collective of individuals and were often facilitated by online platforms such as Meetup or EventBrite where people could find out about in-person events. Meetups tended to be groupings around a similar interest, for example, a particular software coding language or a shared interest in an aspect of technology such as Artificial Intelligence or machine learning. Meetups were usually regular and repeated occasions, for example taking place once a month in the same location. 'First Friday' in Bristol was a prime example of an informal meetup, taking place on the first Friday of the month in a centrally located coworking space, and bringing together an eclectic range of people, all loosely involved with or interested in place-making and economic development issues. Robin, a key figure in the Bristol entrepreneurial ecosystem, described the meetup as follows:

[First Friday] is incredibly informal, it's jokingly called [Name]'s Drinking Club, well that's how it started off, he wanted to know there'd be some mates to drink with on a Friday night, but it's taken on a life all of its own, as a really important meetup, but hugely informal.

An event differed from a meetup in that it usually had a more formal running order or stood alone as a one-off occasion. Events were usually organised around a keynote speaker, whereas meetups did not usually have that same focal point of attention. However, the lines were often blurred, and one regular get-together that described itself as a 'meetup' did follow a set running order with a speaker in much the same way as an 'event' would do. To all intents and purposes, for this thesis, the minor differences between the two are not important. The phrase 'get-togethers' will be used to refer to events and meetups interchangeably, aside from when quoting interviewees. In effect, there is a Venn diagram between events and meetups, as illustrated by Figure 22 on the next page.

CHAPTER SIX

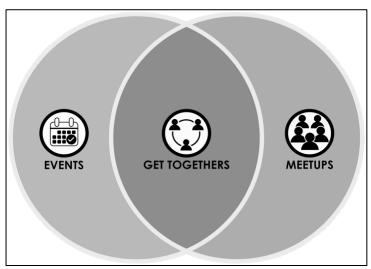


Figure 22: A Venn diagram of events, meetups, and get-togethers.

Source: author's own diagram.

In 2019, when the fieldwork was conducted, Bristol was served by many get-togethers in the tech and digital and entrepreneurship space. One of the interviewees had calculated that there were over 900 events listed that spanned 2019. In 2022, the same interviewee provided me with updated data to show that there were over 40 separate meetup groups focussed on entrepreneurship or some aspect of the digital industries in the Bristol area. Taking account of the coronavirus pandemic and subsequent lockdowns through 2020 and 2021 which paused all face-to-face networking, it would not be difficult to infer that there were well over 40 separate meetup groups in 2019.

This huge array of get-togethers provides an incredible amount of choice, allowing people to dip in and out according to commitment and interest. One of the standing agenda items at The Bristol and Bath Network (also referred to as TBBN; a regular meetup of incubation and business support programme managers) was coordinating event-planning so as to avoid diary clashes. One interviewee referred to the city having "meetup fatigue", and another suggested that too much choice lowered the quality of the get-togethers. However, these comments were

outweighed by the vast majority of interviewees who welcomed the breadth and diversity of get-togethers. Even when those individuals admitted that they did not attend as many events as they might like to, what came through in the interviews was that the variety and regularity of events and meetups contributed to the vibrancy of the Bristol entrepreneurial ecosystem.

Events and meetups in the Bristol entrepreneurial ecosystem provided opportunities for entrepreneurs to network and allowed for a space where serendipitous meetings could occur. This is reflected in the literature: events and meetups that bring people together are an important facet of entrepreneurial ecosystems (Feld, 2012; Harrington, 2017; Motoyama and Knowlton, 2017; Spigel, 2017). This was also recognised by all interviewees, and articulated by William as follows:

[Events and meetups] are very important because they can have a particular purpose but just by bringing people together they maintain the contact level and the informal accidental sort of coming-togethers.

Closed networks that were membership-only or that hosted paid networking events were treated with a degree of suspicion by interviewees. For instance, a local business network where the membership was considerably expensive was derided by several interviewees as being exclusive, cliquey, and exclusionary. Jennifer, sole founder of a social media agency, described a process she went through of trying out a range of different networks, both paid and unpaid. Her observation was that the networks with paid memberships deliberately limited who could join, partly through cost (one network cost £500 every three months, with a £20 fee on top of that for each event) and partly by design: "They have it limited where ... if there is

[already] a web designer, another one can't join. They keep track of who is passing business and you get points [based on that]."

The literature is clear that networks are important for entrepreneurs. Because get-togethers can often help to facilitate the creation or maintenance of these networks, we need to understand the work involved. For an event or meetup to take place, a venue has to be booked (sometimes paid for in advance) and the event has to be advertised online either as a ticketed occasion via EventBrite or as a meetup on Meetup.com. There might be catering to organise; speakers to be found and briefed; audio-visual equipment to be set up; attendees to welcome. In most cases, someone needs to be there to act as host, even for the most informal of gettogethers. This is especially true if a venue is being hired or borrowed pro-bono for the occasion. Organising and running get-togethers requires resource, commitment, and a physical location, as well as the 'cost' of somebody's time, even if they are coordinating the occasion voluntarily and unpaid.

What was valued by interviewees was open and accessible networks, where relationships are solidified through regular get-togethers. This reflects the existing literature, which is expansive on the importance of networks for entrepreneurs to grow and develop as individuals and as business leaders (Motoyama, Watkins and Knowlton, 2014; Mack and Mayer, 2016; Auerswald and Dani, 2017; Stam and Spigel, 2017; Audretsch, Belitski and Cherkas, 2021). Where the entrepreneurial ecosystems literature can be expanded upon is in describing how those get-togethers occur in the first place. Failing to describe this leads to an implicit presumption that

events and meetups are a consistent feature of entrepreneurial ecosystems, without recognising the work that goes into organising these get-togethers.

Easing information flows between institutions

The literature is clear that it is the interactions between the institutional elements of an entrepreneurial ecosystem that matter (Stam and van de Ven, 2007; Isenberg, 2011), and that it is through institutional elements coalescing that an entrepreneurial ecosystem is created (Mason and Brown, 2014). In Bristol, institutional knowledge-exchange was formalised through the creation of The Bristol and Bath Network, or TBBN as it was more commonly referred to by the stakeholders I interviewed. TBBN is a meeting that took place once a month on a Friday morning between individuals involved in running accelerators, incubators, and any other business support programme. The organiser of TBBN described it as follows:

[TBBN] was intended to be an opportunity for those people who work in bringing the ecosystem of entrepreneurial support to life together on a regular basis to share and to learn and to discuss interesting topics. It's a great opportunity to get people together, we take it in turns to either to be here at Incubator Z or be on someone else's turf, so that other people can get a tour around other people's spaces, and that's really lovely, it works really well. I think it's a useful contribution, it brings people together, we tend to do updates for the first half, and then try and have a more meaningful conversation about something for the second half, and it works quite well.

Critically, by bringing these individuals together once a month, each institution involved in supporting entrepreneurs in the Bristol entrepreneurial ecosystem remained up to date on the offers from other entrepreneur-supporting institutions. This was beneficial for entrepreneurs, as it made it possible for them to be more efficiently signposted to appropriate support.

Signposting entrepreneurs was made easier because the various institutions were aware of

what other offers were available, be it commercial coworking space or free incubation support or technical business advice. Sharing information in this way required the institutional culture to be open and collaborative, not competitive. This is described by the following two quotes from Richard and Deborah, who held managerial roles at two different incubators in Bristol:

Bristol and Bath networking breakfasts (TBBN) are a very useful way of catching up with people. [TBBN] is a very useful thing to make sure that Bristol and the surrounding region, Bath, the whole of the West of England, is joined up in its thinking and sharing opportunities. So, highlighting when there are opportunities, what the word on the grapevine is, it's a very useful thing. "There's this, and have you considered this, or I know somebody...". The network is very simple.

We all meet together the first Friday of every month. Which is awesome because, one it helps us event plan a little bit [and] it also gets us to know the ecosystem a bit better.

Meeting together is only the first step: once information was shared between different institutions at TBBN, it was then incumbent on those institutions to act upon this information and signpost entrepreneurs appropriately. There were any number of entrepreneurs and potential entrepreneurs in the Bristol entrepreneurial ecosystem who were seeking support, whether that was an appropriate coworking space or specific business advice. Each accelerator and incubator had different areas of expertise, so if a Life Sciences company were to approach Accelerator S, they would likely be redirected to Incubator X which specifically provided the types of services and infrastructure that a Life Sciences company would benefit from. Incubator X by contrast, did not provide any formalised business support around the general theme of entrepreneurship, and so they would signpost their members towards Accelerator S who specialised in this. Richard, Managing Director at Incubator X described how this signposting worked in practice:

A few of our members here are Accelerator S members, [Company Name] for example, they went through Accelerator S. There are a few companies here who also ... still continue to engage with and receive support from Accelerator S. We do potentially signpost, or we have signposted people up there and likewise they have flagged people in this direction too.

The signposting between Incubator X and Accelerator S is not the only example of business support institutions signposting between each other and ensuring that 'their' entrepreneurs could benefit from different types of support offered by different incubators and business support programmes in the Bristol entrepreneurial ecosystem. Alistair, Managing Director at Incubator Y described how his tenants also accessed support from Accelerator S and the Bank B Accelerator:

We have a number of tenants who are Accelerator S members which is wicked. It shows that different parts of the ecosystem overlap and give better support in different ways, [because if] Accelerator S adds value to one of our companies alongside our own business support, that's fantastic if it helps them grow, gives them a proper network. And some of our members are in the Bank B Accelerator programme as well. I think that is all very healthy, as long as it's all adding value.

Alistair's comment about how different parts of the ecosystem overlap implies that the entrepreneurial ecosystem is greater than the sum of its parts. Entrepreneurs benefit by being part of an entrepreneurial ecosystem where they can access multiple sources of support, whether that is by being part of several accelerator programmes as per Alistair's reflections, or by having a wide pool of available mentors. This supports the literature about munificent entrepreneurial ecosystems which are rich in resources that support entrepreneurs (Spigel and Harrison, 2018). Munificence is only one side of the equation however: entrepreneurial ecosystems must also have a density of networks if they are to function effectively (Spigel and

Harrison, 2018). TBBN is a practical example of actors within a relatively munificent entrepreneurial ecosystem taking action to ensure that it is also well-functioning by creating a forum in which dense networks at an institutional level can be formed and consolidated.

The driving purpose behind the creation of TBBN was to strengthen the offer to entrepreneurs by improving communication lines between the different business support providers.

Coordination between the different incubators and business support providers in the Bristol entrepreneurial ecosystem was deemed necessary to ensure that entrepreneurs could be signposted appropriately, and to recognise the different strengths of the varying offers. In the city of Bristol and the surrounding area, where there is a comparatively smaller pool of potential entrepreneurs compared to London for instance, and a far smaller number of accelerator programmes⁶⁶, it behoves the programmes managers to signpost those entrepreneurs to the programme which is best suited to them. This is made easier if those programme managers know the offers from other accelerator programmes.

Understanding how information (knowledge) flows throughout the entrepreneurial ecosystem is a critical step towards reaching a better understanding of how institutional elements coalesce in an entrepreneurial ecosystem to create an environment that is conducive to productive entrepreneurship. By 'joining up' the entrepreneurial ecosystem in a very practical way, the existence of TBBN provides a tangible example of how institutional elements can exist

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⁶⁶ London has the highest proportion of accelerator programmes of any UK city: out of a total of 186 UK accelerators in 2019, 65% (120) of all UK accelerator programmes were based in the capital city, whereas only 3% (6) were based in the South West. Source: https://www.beauhurst.com/accelerating-the-uk-report/. Accessed 17th July 2022.

cooperatively, whilst also having competitive offers, within an entrepreneurial ecosystem.

Understanding how institutions are 'joined up' within the entrepreneurial ecosystem moves us closer towards a more detailed understanding of how institutional elements coalesce to produce the environment for productive entrepreneurship.

Constructing the identity and narrative(s) of the entrepreneurial ecosystem

This opening section about EDW has so far described three streams of activity: making introductions and signposting entrepreneurs; facilitating networks and creating communities; and easing information flows between institutions. These three aspects of EDW all describe the processes that occur within an entrepreneurial ecosystem, and the relationships between individuals who operate within the institutional elements of the entrepreneurial ecosystem. The fourth stream of activity that forms part of EDW is slightly different in nature, in that it relates to how the entrepreneurial ecosystem is understood and perceived by both internal and external actors. This is done through the creation of narrative(s) which help to form the identity of the entrepreneurial ecosystem.

Whilst the identity of the entrepreneurial ecosystem is not a process in and of itself, narrative-building is a distinct process which occurs within the entrepreneurial ecosystem. In this way, constructing the identity and narrative(s) of the entrepreneurial ecosystem is classed as EDW alongside the other three streams of activity described thus far. Polletta (1998, p. 141) describes how narratives can help to constitute a collective identity: "In telling the story of our becoming – as an individual, a nation, a people – we establish who we are." Narratives play an important role in an entrepreneurial ecosystem. Roundy and Bayer (2019) distinguish between

the construction of 'micro-narratives', which are stories about specific actors within an entrepreneurial ecosystem, and 'macro-narratives', which are stories about the entrepreneurial ecosystem itself. Narrative-building as an EDW process concerns itself with the latter. Macro-narratives within (and of) the Bristol entrepreneurial ecosystem were constructed in two ways: top-down and bottom-up. Each will be considered in turn.

Top-down narratives

The first way that narratives were observed to be constructed in Bristol was through concerted and intentional efforts to 'brand' the Bristol entrepreneurial ecosystem, i.e., 'top-down'. Top-down narrative construction was usually seen to be the purview of the public sector, in particular, Invest Bristol and the Mayor's Office, or was led by the public sector but with input from the private sector, for instance by the WECA LEP private sector board and Business West (the regional Chamber of Commerce). Bristol has in recent years gained a reputation as a 'strong' entrepreneurial ecosystem, as reflected upon here by Deborah, Managing Director of Bank B Accelerator:

I think that Bristol has become a city that is known for entrepreneurs and known for startups ... over the years it's become a city that not only hosts entrepreneurs, not just creative entrepreneurs, but those that deliver: we had two unicorns just before Christmas [2018] which is huge, and I think that's kind of putting us on the map as not just small players, we're hitting the big time now.

Some of the tangible actions to reach this point of recognition were undertaken at a strategic city-wide level and were not directly related to entrepreneurship, for instance, Laurel, who worked as community manager for Bristol-based Coworking D, said that the messaging around entrepreneurship in Bristol was consolidated through trade missions to MIPIM that she had

helped to coordinate alongside the city council's economic development team.⁶⁷ Other interviewees referenced Invest Bristol and Bath as an institution which played a key role in developing some of the narrative, particularly around sectorial clusters. Three interviewees referenced two occasions – both unrelated to entrepreneurship – that resulted in headlines across the UK and around the world, and which helped to 'put Bristol on the map'. The first was an initiative by Mayor George Ferguson⁶⁸ to install a giant slide in the city centre in 2014.⁶⁹ The second was when 'Brenda from Bristol' was asked in a BBC interview about the Theresa May's snap election in 2017 and her response ("You're joking, not another one, I can't stand this, there's too much politics going on at the moment, why does she need to do it?") went viral.⁷⁰ Non-entrepreneur stakeholders in the entrepreneurial ecosystem were proactive at seizing opportunities to talk about Bristol in a positive light, and wherever possible to a wide audience. The net result of this type of recognition is described by Laurel:

[It] is quite useful to have a message that people understand about the city. And that has been a gradual process ... people come [up with a] couple of lines, most of them didn't work, some of them do and somebody repeats it, and so now you literally get people walking into the door from London with a suitcase to Coworking D saying, "Hi, I've heard this is a really good place to work as a city so I thought I would turn up and work here."

There have been some attempts to formalise the narrative of the entrepreneurial ecosystem by creating key messages. In 2018, the economic development research consultancy SQW was

⁶⁷ "Established in 1990, MIPIM is a 4-day real estate event to meet the most influential players from all sectors of the international real estate industry." Source: https://www.mipim.com/en-gb.html. Accessed 3 February 2022.

⁶⁸ George Ferguson CBE served as Bristol's first elected mayor from 2012 to 2016.

⁶⁹ Source: https://www.bristolpost.co.uk/news/bristol-news/gallery/look-back-park-street-became-3272492. Accessed 26 January 2022.

⁷⁰ Source: https://www.youtube.com/watch?v=H6-IQAdFU3w. Accessed 26 January 2022.

commissioned by University of the West of England (with support from the University of Bristol, the West of England Local Enterprise Partnership, and Oxford Innovation) to write a report looking at innovation activities in the "Bristol-Bath Innovation Cluster" (Green and Doel, 2018). William, a senior figure at UWE and one of the commissioners of this piece of work, described the rationale for contracting SQW to write the report:

One thing we were trying to do with the SQW report was to help build that common understanding ... having an authoritative external view, and getting everyone saying, "we know all that anyway", but they didn't really, they knew bits of it from their own angles.

It appeared that the SQW report was widely read by stakeholders in the Bristol entrepreneurial ecosystem as it was mentioned by a large proportion of my interviewees, but to what extent this top-down exercise resulted in a common 'narrative' about the entrepreneurial ecosystem at a grassroots level is hard to tell. When asked whether a common understanding of the entrepreneurial ecosystem existed, Timothy, a Community Manager for Accelerator S, replied, "I don't know, I think I've drank the Kool-Aid a little bit." This implied that he (and others) accepted and used the term 'entrepreneurial ecosystem' because everyone else did too, without really giving it much thought. Other responses chimed with this, with a number of interviewees saying that they thought there was not a common understanding of the entrepreneurial ecosystem. This ambiguity about defining the entrepreneurial ecosystem was not perceived to be a negative attribute, as explained by Susan, who supported entrepreneurs by carrying out pro bono work through her employment at a professional services firm: "I think that's what makes it great though ... everyone has their own perception of what it is to them and the way it supports them." The amorphous nature of the phrase itself was seen to have its

advantages, as Robin (Managing Director of Incubator Z) put it, "You can talk about some things in the ecosystem without having to define exactly what that means."

Despite this lack of common language amongst stakeholders within the entrepreneurial ecosystem, there did appear to be consistency in how the elements of an entrepreneurial ecosystem were defined, in particular the institutions involved, and the types of entrepreneurs and businesses supported. It was also recognised amongst stakeholders in the Bristol entrepreneurial ecosystem that, "how [the entrepreneurial ecosystem] appears outside is key [and it is helpful that] the players in that ecosystem are having similar thoughts about that." This quote comes from Michael, a senior official at WECA which organisationally has a vested interest in the attractiveness of the West of England as a place to live, work, invest in, and move to. There was a consistency in the responses from non-entrepreneur stakeholders that it was helpful for there to be a strong narrative about the entrepreneurial ecosystem that could be used externally, in particular in conversations with national policymakers and investors.

Bottom-up narratives

The second way that narratives were constructed was via entrepreneurs and non-entrepreneur stakeholders repeatedly telling the same stories about the Bristol entrepreneurial ecosystem, i.e., bottom-up. Repeating the narratives over and over increases their fluency, which in turn increases the perception that the messaging is truthful (Hassan and Barber, 2021). By repeating the same truths about an entrepreneurial ecosystem, this knowledge becomes widely dispersed within the entrepreneurial ecosystem itself, as well as externally. This latter point is particularly important: an entrepreneurial ecosystem that projects itself to be strong and well-

connected attracts the attention from stakeholders who are outside the geographic boundaries of the ecosystem. In the case of Bristol, what has been particularly important are relationships created and sustained with investors from London. The investors who were interviewed noted two things in particular that they considered to be valuable: first, that the entrepreneurial ecosystem has confidence and, second that there is an easy point of entry. Investors were of course looking for more than just narrative about a place – they also wanted to know that there are investible companies there too. This macro-narrative about the Bristol entrepreneurial ecosystem coupled with the (micro-narrative) success stories of individual entrepreneurs and businesses, made the region all the more compelling to outside interest. Julie, Director of Accelerator S, reflected on the impact of this:

It really helps having some of those really big success stories that Bristol has had, it's boosted the confidence of people that it is possible, so you know like [Company Name] is now a named unicorn, and [Company Name] was one of the biggest acquisitions in the country. It just shows people that it can be done in Bristol, and I think that it's boosted our confidence, not only for entrepreneurs but also for investors. Quite a few London-based VC funds call us on a regular basis and say, "Can we come to Bristol, can you organise a day for us meeting startups." And that brings more money and more investment.

There are a few specific occasions that can be highlighted as examples of bottom-up macronarrative creation within the Bristol entrepreneurial ecosystem. The five vignettes presented
on the following page show how groups of individuals or non-public sector organisations took
the initiative to make something happen that would feed into the overarching macro-narrative
of there being a strong entrepreneurial ecosystem in Bristol.

- 1. The 'London to Bristol' (#LDN2BRS) event.⁷¹ This was held in August 2015 (and repeated in December 2021). London-based entrepreneurs were brought on a tour of Bristol and hosted at Incubator Z, where they heard presentations from the major entrepreneurial support organisations and were given plenty of opportunities to network with Bristol-based entrepreneurs.
- 2. **The Bristol Calling website.**⁷² Spear-headed by TechSPARK, this website showcases where potential entrepreneurs can live, work, and play in Bristol. TechSPARK also ran the Bristol Calling campaign for small to medium sized Bristol-based tech companies to advertise for vacant developer roles in the developer communities in London.
- 3. Regular contact with national policymakers at Department for Culture Media and Sport (DCMS). I attended a roundtable discussion hosted by Incubator Z and TechSPARK in May 2019 where there was a presentation about the Bristol entrepreneurial ecosystem, and the opportunities it afforded for more entrepreneurial support organisations, as well as new real estate developments such as additional coworking spaces. When I spoke to the DCMS representative after the event, it was clear that he believed that the Bristol entrepreneurial ecosystem as a good example to follow.
- 4. **Membership of the UK Tech Cluster group.**⁷³ This is a UK-wide grassroots network of tech and digital entrepreneurial ecosystem leaders who represent the views of their respective geographic areas in discussions with senior civil servants and policymakers at a national level.
- 5. Contributing to initiatives and research led by the ScaleUp Institute.⁷⁴ The ScaleUp Institute conducts research and reports on the needs of UK scaleups, hosts discussions, and advocates for the needs of scaleup entrepreneurs. The ScaleUp Institute often hosts roundtables, to which stakeholders who are active in the Bristol entrepreneurial ecosystem are invited to participate. Some of the entrepreneurship-related initiatives in Bristol have been showcased as 'exemplars' in the ScaleUp Institute's annual reports.

⁷¹ Source: https://techspark.co/blog/2015/09/11/techspark-tv-london-based-entrepreneurs-have-minds-blown-on-day-trip-to-bristol/. Accessed 17 June 2022.

⁷² Source: https://bristolcalling.com/. Accessed 17 June 2022.

⁷³ Source: https://uktechclustergroup.com/about-us/. Accessed 17 June 2022.

⁷⁴ Source: https://www.scaleupinstitute.org.uk/. Accessed 17 June 2022.

These five examples show how non-entrepreneur stakeholders continually look for, exploit, and create opportunities to tell the story of the Bristol entrepreneurial ecosystem to people from outside that ecosystem, whether policymakers, property developers, future workforce, or entrepreneurs. Above and beyond simply telling stories about successful entrepreneurs in the region – or micro-narratives (Roundy and Bayer, 2019) – these particular stakeholders had evidently grasped implicitly that crafting a macro-narrative about an entrepreneurial ecosystem is an activity that needs to be done with purpose if it is to have any success in influencing external audiences.

The impact of EDW on the Bristol entrepreneurial ecosystem

The above four sub-sections have provided definition to the four streams of EDW, with details about how they are enacted in the Bristol context. In this sub-section, I present Table 9 below and on the following two pages, which summarises the impact that EDW has had on the Bristol entrepreneurial ecosystem, with additional examples from the literature of similar activities that have been theorised or observed in other entrepreneurial ecosystems.

TABLE 9: HOW EDW CONTRIBUTES TO THE DEVELOPMENT OF THE ENTREPRENEURIAL ECOSYSTEM

The four streams of Ecosystem Development Work (EDW) identified in Bristol	The impact of EDW on Bristol's entrepreneurial ecosystem (EE)	Examples from the literature of similar work in other entrepreneurial ecosystems		
Making introductions and signposting entrepreneurs	 The facility with which introductions were made meant that there was a sense that the EE was collaborative and joined up. Less positively, it was suggested that an EE that was reliant on 	- "The presence of intermediaries has been well known for decade. [They link] entrepreneurs, local service providers, [and] investors to one another." (Malecki, 2018, p. 10).		

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	introductions being made by a few key people could lead to it becoming fragile.	 "Dealmakers [make] connections in purposeful ways [and] play a central role mediating, shaping and configuring regional entrepreneurial networks." (Feldman and Zoller, 2012, p. 26) Pittz et al (2019) demonstrate that dealmakers facilitate strong connectivity within dynamic EEs such as Seattle, and weaker connectivity in less dynamic EEs such as Tampa.
Facilitating networks and creating communities	 Recurring meetups and events brought people together on a semi-regular basis, meaning that actors within the EE felt connected within a network. This continued strengthening of ties within the EE had two effects: first, it added to the sense that the EE was vibrant and collaborative, and second, it enabled entrepreneurs to be accurately signposted to support. 	 Audretsch, Belitski and Cherkas (2021) show that having access to a network provides opportunities for entrepreneurs to seek support. Auerswald and Dani (2017) and Stam and Spigel (2017) found that entrepreneurs can more easily share information if they are part of a network. Motoyama, Watkins and Knowlton (2014) and Mack and Mayer (2016) show that entrepreneurs can forge new relationships with mentors by being part of a network, based on empirical research conducted respectively in St Louis, Missouri, and Phoenix, Arizona.
Easing information flows between institutions	 As a result of the regular TBBN meetings where information was shared between business support providers, the EE was easier to navigate for entrepreneurs. The direct impact on the Bristol EE of TBBN was that the institutional elements were able to coalesce, which, as argued in the extant literature, is essential for the functioning of an EE. 	 Brown, Mawson and Mason (2017) argue that knowledge of locally available growth-related programmes amongst entrepreneurs can be limited. The act of sharing knowledge and information means that this situation can be countered. To the knowledge of the author, there is not any empirical evidence within the academic literature of similar information-sharing between institutions within a specific entrepreneurial ecosystem.
Constructing the identity and narrative of the	- The macro narrative about Bristol's EE was constructed both top-down and bottom-up. This	 Roundy (2019) describes the effect of narratives and how they depend on the maturity of the

entrepreneuria
ecosystem

- gave a consistent narrative for all actors within the EE that felt genuine and co-constructed.
- The impact of a strong and consistent narrative on Bristol's EE was that non-entrepreneur stakeholders were able to attract more resources from outside the EE to the benefit of entrepreneurs. For instance, the existence of a strong narrative made the Bristol EE attractive to investors from London.
- EE. For instance, the narrative of Silicon Valley as one of the most entrepreneurial communities in the world emerged in the 1980s and has been very persistent, whereas the once-strong entrepreneurial narratives in the US "Rust Belt" have been replaced by narratives of struggling economies since the decline of industry.
- Muñoz et al (2020) argue that the success of Start-Up Chile (a government funded initiative to boost entrepreneurship and innovation in 2010, predominantly focused around the capital city Santiago) had a knock-on effect of creating vibrant entrepreneurial hubs in two cities outside of Santiago.

Source: Table devised by the author

As expressed in the introduction to this thesis, the extent to which an entrepreneurial ecosystem functions effectively is based on Spigel and Harrison's (2018) schematic of ecosystem types (Figure 3, page 25). As Table 9 above demonstrates, it is evident that these four streams of EDW activity both strengthen networks and increase the munificence of resources within and entrepreneurial ecosystem. Whilst the intention of this thesis is to uncover the mechanisms of an entrepreneurial ecosystem without laying claim to causality, it is apparent that EDW has had a positive impact on Bristol's entrepreneurial ecosystem with regards to these two aspects; the network strength and the munificence of resources.

6.3 Who are ecosystem enablers?

The opening section of this chapter considered the four aspects of Ecosystem Development Work. The intention of outlining EDW in detail is to make explicit the activities that are required to maintain and develop an entrepreneurial ecosystem. The second section of this chapter moves on to consider the individuals who do that work. These individuals are defined as ecosystem enablers, and the argument is made that this role is personality-driven and relationship-based.

Introducing ecosystem enablers

Over the course of conducting fieldwork and interviews in the Bristol entrepreneurial ecosystem, it transpired that there were certain non-entrepreneur stakeholders (termed 'ecosystem enablers') who were carrying out EDW activities that contribute to the development of the entrepreneurial ecosystem. Whilst the extant literature recognises that other stakeholders beyond entrepreneurs are important for an entrepreneurial ecosystem to function, there is a lack of clarity around exactly who those actors are, and a lack of explanation about the full breadth of their role. Intermediaries such as dealmakers (Feldman and Zoller, 2012) and bridging assets (Mason and Brown, 2014) are acknowledged as playing a role in connecting entrepreneurs and building networks, but as the first section of this chapter has outlined, the ongoing work that goes into developing an entrepreneurial ecosystem is far broader than this.

An important point to make is that it was definitively non-entrepreneur stakeholders who were leading on EDW in the Bristol entrepreneurial ecosystem, and not entrepreneurs. Leadership

within an entrepreneurial ecosystem is important: Stam (2015) refers to leadership as providing "direction and role models for the entrepreneurial ecosystem ... critical in building and maintaining a healthy ecosystem." But here, Stam's leaders are entrepreneurs, which echoes Feld's (2012) view that entrepreneurs must act as leaders within the entrepreneurial ecosystem rather than feeders (for instance professional service providers and financial infrastructure). The point of contention that arises is that the empirical evidence from Bristol points to other people who fulfil this leadership function within the entrepreneurial ecosystem, i.e., the entrepreneurs themselves are not the leaders.

Ecosystem enablers are individuals rather than institutions – the two are often conflated in the literature under the umbrella term 'entrepreneurial actors' (Brown and Mason, 2017) or 'practitioners' (Stam, 2018). This lack of specificity in correctly identifying non-entrepreneur 'ecosystem actors' in the literature, and the narrow definition of the role of intermediaries, means that we are no closer to understanding processes or mechanisms within entrepreneurial ecosystems. As became evident through carrying out the fieldwork in Bristol and the subsequent data analysis, sometimes ecosystem enablers were employed by institutions that were already actively playing a part in the entrepreneurial ecosystem, and sometimes ecosystem enablers were operating outside of these institutions. Different ecosystem enablers might carry out different elements of the EDW as described in section 6.2 of this chapter: some might run meetups and events; others might facilitate introductions. Having people undertake these activities brings vibrancy and connectivity to the entrepreneurial ecosystem. The second section of the chapter describes the attributes and motivations of ecosystem enablers and establishes the importance of recognising that this role is personality-driven and relationship-

based. This section also considers the differences between those who are paid to do EDW as part of their employment within an institution, and those who do it voluntarily.

Attributes and motivations of ecosystem enablers

Ecosystem enablers are defined by the EDW activities that they do. During the data analysis, it transpired that there were commonalities across the personalities of all the ecosystem enablers who were interviewed. Ecosystem enablers also had similar motivations for doing EDW and were described as having similar attributes by other stakeholders. In particular, the relationship-based nature of their role was emphasised. A recurring theme that emerged from the interviews was that ecosystem enablers were well-trusted and well-liked. Moreover, they were seen to be unbiased, always acting in the best interests of entrepreneurs. For instance, Anne, who held a senior community-facing role within a VC firm described individuals fulfilling an ecosystem enabler role as follows:

They [are] the kind of person who can build connections and ask people for stuff, with no expectation of anything in return, and do all that stuff, and be someone who everyone trusts and who everyone goes to, and who is a beacon in their community.

The role of trust in entrepreneurial ecosystems has been explored by Muldoon *et al.* (2018), who found that trust within an entrepreneurial ecosystem has a positive impact on productive entrepreneurial endeavours, whereas distrust is a contributing factor to unproductive entrepreneurship. Looking specifically at trusted individuals in the entrepreneurial ecosystems literature, trust is also an attribute highlighted in the descriptions of dealmakers (Feldman and Zoller, 2012). Trust is a particularly important quality in an entrepreneurial ecosystem when it comes to the social ties of investors, who, in their role connecting interesting startups to other

investors within their networks (Florida and Kenney, 1988), could also be said to be partially fulling the role of ecosystem enablers.

Ecosystem enablers were portrayed as being natural connectors who enjoy helping others.

Timothy described why he felt so suited to his role as Community Manager within Accelerator S: "I love collaboration and partnerships, and I like working with other people and sharing ideas, and so being [in this role is] a really great fit for me." Jennifer, an entrepreneur who ran meetups in her spare time, described her raison d'être as follows: "The core of whatever I do [is that] I want to help people." Ecosystem enablers were repeatedly described by entrepreneurs and non-entrepreneur stakeholders as being friendly, outgoing, and collaborative. Their ability to make useful introductions relied upon them being well-networked and well-connected, which indicates that ecosystem enablers have a high level of social capital.

Within the entrepreneurial ecosystems literature, social capital is linked to the idea that network ties provide access to resources (Anderson and Jack, 2002; Anderson, Park and Jack, 2007). Anderson, Park and Jack (2007) find that entrepreneurs are individuals who are skilled at unlocking the social capital residing within a network; they describe social capital as both the 'glue' within entrepreneurial networks and the 'lubricant' that facilitates the operation of those networks. Evidently, these references to social capital within the entrepreneurial ecosystems literature focusses on the social capital of entrepreneurs. In terms of the social capital of intermediaries, Feldman and Zoller (2012) argue that how social capital is structured within a place (i.e., the number of dealmakers and the extent of their connections) is more important

than the aggregate size of local entrepreneurial networks. By defining the attributes of ecosystem enablers, the focus here is on the social capital of non-entrepreneur stakeholders.

Ecosystem enablers in Bristol all had a real passion for their city and region. Robin, the Director of Incubator Z, described the type of person who would fulfil the ecosystem enabler role as: "... somebody who is emotionally engaged. I think there's an emotion piece in wanting to make the place a better place." Ecosystem enablers in the Bristol entrepreneurial ecosystem were all working towards creating a better environment in which entrepreneurship could flourish.

Supporting the entrepreneurial ecosystem through EDW was linked to a strong sense of belonging to that entrepreneurial ecosystem, echoing the notions of place attachment and insideness (Relph, 1976) described in Chapter 5. For instance, several interviewees were disparaging about the efforts of a London-based organisation that had employed somebody to 'connect' the entrepreneur communities in the South West. In describing the Bristol entrepreneurial ecosystem Timothy said:

It's very partnership driven, it's very collaborative, but it's also very important that [key individuals] are trusted and seen as being credible and relevant ... I think that people who are parachuted in [from outside] can sometimes not understand that very well ... when new players come into the ecosystem, they need to be encouraged to understand how and why things are done.

Often, ecosystem enablers were involved in other initiatives outside of entrepreneurship too, for example, two of the ecosystem enablers interviewed ran book groups, and another was active in the voluntary sector. This indicates that ecosystem enablers were generally motivated by a commitment to improving the sense of connectivity and belonging within their local

environs and by a desire to give back to the community. In other words, ecosystem enablers are embedded within the entrepreneurial ecosystem.

The concept of embeddedness (Granovetter, 1985) refers to the degree to which the economic behaviour(s) of individuals and institutions is embedded within (and influenced by) the structure of social relations. McKeever, Jack and Anderson (2015) use the concept of embeddedness to show how entrepreneurship within a place can bring real and tangible benefits to the community. Their research focusses on the two-way relationship between entrepreneurs and place: entrepreneurs are deeply influenced by the community in which they are embedded; and social change can occur within places where entrepreneurs are embedded. As in the case of social capital, references to embeddedness in the entrepreneurial ecosystems literature relate to the entrepreneurs, whereas the contention here is that the concept of embeddedness is just as important for ecosystem enablers, who are non-entrepreneur stakeholders.

The three attributes discussed here – trust, high social capital, and embeddedness – paint a picture of ecosystem enablers who are motivated to do EDW because they are open, friendly, and sociable, because they enjoy making useful connections within the entrepreneurial ecosystem, and because they are motivated by their commitment to make Bristol a better place. As in any job, not everyone is necessarily suited to fulfil the role of carrying out EDW. The common personality traits shared by all the ecosystem enablers interviewed in Bristol imply that the ecosystem enabler role is personality-driven and relationship-based. While Mason and Brown (2014) observe that 'bridging assets' come about through informal connectors, rather

than via individuals who have this as a formal job role, within the Bristol context it was evident that there are two types of ecosystem enablers: those who fulfil this role as part of their paid job; and those who do elements of this role voluntarily, i.e., outside of their paid job. The following section will describe paid and unpaid ecosystem enablers.⁷⁵

Paid ecosystem enablers in Bristol

To begin, I will consider those ecosystem enablers who are paid employees of the key institutions named within the entrepreneurial ecosystems literature, for instance incubators or coworking spaces. It is recognised that a community manager role within a physical space (such as an incubator) can facilitate social interactions and make introductions between entrepreneurs (Spinuzzi, 2012). This can help entrepreneurs to feel as if they belong to a wider community (Weele, Steinz and Rijnsoever, 2014). Julie, the Director of Accelerator S in Bristol recognised the importance of this type of role because it meant that there was, "someone dedicated to [people and community], someone who can ... make introductions for [our members], can bring them together, can refer them to other organisations." In describing his own role as Community Manager of Accelerator S, Timothy referred to the signposting work that he does for members:

When the entrepreneur knows what they need to do next, so if they need to build a digital marketing plan or they need [help with] their finances, it's my role to help find them the right person to do that.

⁷⁵ For those ecosystem enablers who are unpaid, it is perhaps even more the case that the motivation for doing EDW is intrinsically based upon the individual's personality and what they enjoy doing, rather than any extrinsic motivation (for instance, salary or recognition).

These aspects of the community manager role – signposting, making introductions and referrals, understanding entrepreneurs' needs – are relatively straight-forward to write up in a job description and are included in the four aspects of EDW as described in the opening section of this chapter. But above and beyond this, the community managers of accelerators (and people in other similar jobs) also play an ecosystem enabling role in the Bristol entrepreneurial ecosystem which is not so easy to explicitly define. This is predominantly the work that they do in building connections with other key accelerators, incubators, and coworking spaces, for instance, by attending TBBN. Julie described the importance of this kind of activity:

[We have to consider] how do we connect to other key spaces. There are a lot of cross-referrals between all of us in Bristol, so it's hugely important to be continuing to work on that wider ecosystem.

Both Julie and Timothy had professional backgrounds working with startups and startup communities in London, bringing together members of coworking spaces, and running startup support programmes. They were well versed in how an entrepreneurial ecosystem functions on a practical level, and the importance of different institutions across the city and region working together to achieve the greater goal. Their institutional employer in Bristol also recognised the importance of this, and therefore they were able to integrate EDW successfully into their paid roles. This was not the case for all ecosystem enablers, as shall be explored in the following sub-section.

Unpaid ecosystem enablers in Bristol

Within the Bristol entrepreneurial ecosystem, there are also ecosystem enablers who operate outside of the main institutional elements such as incubators or accelerators. They play a

similarly key role to the paid ecosystem enablers but do so separately to their main employment. Three of the entrepreneurs I interviewed also acted as ecosystem enablers. They were not directly paid for their ecosystem enabling activities (which included organising and running events, making useful introductions, and speaking publicly about the Bristol entrepreneurial ecosystem thus contributing to the overarching narrative) or any of the other related EDW activities outlined in the opening section of this chapter.

Jennifer ran a social marketing agency as a solo-entrepreneur, and was very active in the Black community, in particular in relation to tech and entrepreneurship. She co-founded a meetup group specifically for Black and Minority Ethnic individuals across a range of different interests, including entrepreneurship, because she said that she was tired of going to get-togethers and being "the only person of colour in the room." Jennifer expressed her ambitions for this meetup group but was constrained by the fact that she wasn't being paid to spend her time developing this: "We don't make any fricking money, we are trying to fundraise to pay the meetup fee at the moment ... so [it is] purely meetups, [nothing more]." Melanie co-founded and ran a tech recruitment agency in Bristol which employed 14 people. Alongside running a company, she was also incredibly active in organising get-togethers for entrepreneurs. These get-togethers ranged from events to showcase women in tech, to volunteer-led coding initiatives and technical meetups. She estimated that around 400 people came to her gettogethers every month. Her motivations for doing this unpaid work were partly because she wanted to "give back to the local community" and also because it helped to increase awareness of her company. She was able to raise sponsorship and source senior people to speak at her events through her networks. She and her co-founders had structured their company in a way

that enabled them to have "a little more time where we [can] run these events." She had observed that some of the existing meetups were not well organised "because everyone is doing their day job." This speaks to the tension in doing EDW voluntarily: when the ecosystem enabler's priority is on earning a living, the unpaid extra-curricular activities that benefit the entrepreneurial ecosystem are likely to fall away.

Whilst motivations and attributes of both unpaid and paid ecosystem enablers appear to be similar, the unpaid ecosystem enablers were in a more precarious situation due to their EDW activities being carried out voluntarily. If competing priorities were to arise, it is likely that EDW activities would cease, as indicated by Jennifer's experience and Melanie's observations.

6.4 Valuing "invisible" Ecosystem Development Work

The first two sections of this chapter outlined the four parts of Ecosystem Development Work and described the ecosystem enablers who do this work. In doing so, the aim has been to make explicit the activities which occur in entrepreneurial ecosystems, and the people who carry out those activities, which heretofore have not been explicitly articulated in the literature. By outlining the activities of EDW and who does this work, it is hoped that the inner workings of the entrepreneurial ecosystem are revealed. The very act of revelation implies that EDW activities are typically hidden. In this final section of the chapter, I show how EDW and ecosystem enablers are perceived by entrepreneurs and stakeholders in the entrepreneurial ecosystem. Entrepreneurs are shown not to be aware of the processes and individuals involved in EDW, despite benefiting from it. This indicates that EDW is 'invisible' to entrepreneurs. I also

suggest that EDW is largely invisible to funding bodies and decision-makers, for the reason that it is hard to articulate the value of EDW or measure it in a tangible way that is understood by policymakers (its economic impact is somewhat easier to measure, but its social impact can be difficult to quantify). I conclude this section by making the case that the invisibility of EDW may have negative consequences for the entrepreneurial ecosystem, in particular when it comes to the longevity of the ecosystem enabler role. Without the ability to measure the impact and articulate the value of EDW, it can be hard to secure the necessary funding to ensure that it happens.

Ecosystem Development Work is invisible to entrepreneurs

In this sub-section, I reflect on entrepreneurs' understanding and perceptions of the entrepreneurial ecosystem as a whole, and the EDW that lies behind the formal and informal support that some of them access. When entrepreneurs were asked about the support that they had received in starting up or scaling their businesses, and the general environment for starting and growing a business in Bristol and the region, many of them listed the main institutional elements of an entrepreneurial ecosystem. For instance, there was a good awareness of the main accelerator programmes in Bristol, the coworking spaces, the universities, different funding opportunities, and some of the main events and meetups. However, when I asked my interviewees directly whether they were aware of the term 'entrepreneurial ecosystem' and what it meant to them, I received a variety of responses, ranging from no real comprehension to quite detailed descriptions, as set out in Table 10 (my italics to highlight key definitions).

TABLE 10: HOW ENTREPRENEURS UNDERSTAND / USE THE PHRASE ENTREPRENEURIAL ECOSYSTEM

No comprehension

I've not heard that specific term before. It's interesting. What does it mean to me? I've never really thought of it as a city, you know. There's a great ecosystem right here [in this serviced office building] and that's why we're here. (Natalie)

[What does the phrase mean to me?] Not much! (David)

What does [entrepreneurial ecosystem] mean? Probably, like, oh God I don't know! Maybe like, a hub of entrepreneurs? But yeah, I don't know! (Melanie)

Differing descriptions

I think it's a valid metaphor ... in the same way that you have flows of energy around a natural ecosystem you have <u>flows of information around an entrepreneurial ecosystem</u>. It certainly does feel like that, there's a lot of services, there's a lot of support geared around entrepreneurialism at least in Bristol, and it does feel like, as an entrepreneur, particularly <u>if you're a tech entrepreneur you step into the middle of a big web</u>, as it were. So, I think it's valid. (Stephen)

Yeh it [means something to me], so let's say I wanted to start something again ... the first thing I'd do would be to go to Coworking D. Just because <u>the team there knows</u> <u>everybody, everyone around you is doing the same sort of thing, and people do each other favours</u>. (Craig)

Ecosystem is just another stupid word for a group of people, right? <u>A group of people</u> who have all, who are all trying to start their own business in the same location. (Ryan)

I think it comes down to talent. So, if you were going to start a company, you can't do it on your own. It's about <u>the pool of talent across the different skillsets</u> that you're going to need rather than just some people you're going to talk to about it, you need to be able to go out and hire somebody or be able to attract somebody with those skills to come to where you are to be able to build the business. I think that's really what is behind ecosystem and <u>it's about a place that manages to attract that broader group of</u> people who then are interested in being part of these new businesses. (Stuart)

[Ecosystem is] the network again. It's how, not just I guess the businesses, but everything that surrounds them and the inter-connectedness how it helps each other. An ecosystem for me is <u>those businesses that are doing interesting things and growing but around it, there's all the necessary support, people, staff.</u> So, it's buildings and this place Coworking E. Eighteen months ago the follow-on space from something like Incubator Z, it was a dearth. And I talked to businesses, and they were going into Regus and it's horrible, or they were trying to take out a five-year lease on a building that's falling down, and I can't commit ... it was really tough. And now we've got here, there's a number of coworking spaces, there's the one over there ... Coworking D. And that <u>I think</u> [a large number of coworking spaces] is a sign of a healthy ecosystem. So, I think it's

really important. And again, it comes down to the momentum behind an area or group of businesses. (Graham)

Essentially, it's <u>how things cycle back into each other</u>, so like the Bristol tech ecosystem is you go to the Bank B and from Bank B find your brother company you go into Accelerator S, and then maybe from Accelerator S you might get some University students, and go into Incubator Y whatever, <u>you just keep hopping around where it's</u> always the same people, always the same things happening. (Jennifer)

Source: Table devised by the author

Table 10 shows that entrepreneurs in the Bristol entrepreneurial ecosystem did have a good awareness of where they could access support. Entrepreneurs spoke about 'flows of information', networks, peer support, talent, support, and coworking spaces. All of the institutional elements referred to in Table 10 are recognisable in the literature as those which comprise an entrepreneurial ecosystem (Isenberg, 2014; Mason and Brown, 2014; Spigel, 2017; Stam and Spigel, 2017; Spigel and Harrison, 2018). However, despite this awareness, it was striking that not one of the entrepreneurs I interviewed used the exact phrase 'entrepreneurial ecosystem' unless I prompted them by using the phrase myself, and three of them had not heard the phrase before, despite their awareness of the various institutional elements which comprise it.

Clearly, entrepreneurs valued being able to access the support they need, whether this was formalised support via an accelerator programme or informal support via a community of peers. How the entrepreneurial ecosystem fits together around a particular institutional element appears to be far less important from an entrepreneur's perspective – so long as it is well functioning and entrepreneurs can access the resources within it (Spigel and Harrison, 2018). It is perhaps for this reason that the entrepreneurial ecosystem is largely invisible to entrepreneurs. This finding chimes with Manimala *et al.* (2019) who found that entrepreneurs

('actors') were less likely to attribute their success to the entrepreneurial framework conditions than the non-entrepreneurs ('observers') who were more likely to point to the role of specific elements which created an environment conducive to entrepreneurship.

However, given that the entrepreneur is at the centre of the entrepreneurial ecosystem as described in Chapter 3, it seems somewhat contradictory that they don't then 'see' it. This adds further weight to the contention put forth in section 6.3, whereby, in contrast to the literature, the empirical evidence shows that it is *not* the entrepreneurs who play a role in 'leading' the entrepreneurial ecosystem. For instance, it would be difficult if not impossible for an entrepreneur to play a role in 'connecting' the various elements of an entrepreneurial ecosystem if they themselves are only aware of a sub-section of those elements. This makes the need for an ecosystem enabler role all the more compelling: the entrepreneurial ecosystem needs to continue to function effectively whether or not entrepreneurs are aware of all the various institutions and individuals at play.

The entrepreneurs interviewed were also unobservant of the EDW occurring 'behind the scenes' that was ultimately for their benefit. For example, some entrepreneurs cited the meetups and events that they attended and the introductions that were made that resulted in the entrepreneur finding a co-founder, mentor, or a new employee. In describing these occurrences, the emphasis was always on the outcome (the impact of EDW) rather than the process (the EDW itself). The two quotes below illustrate this: the first from early-stage entrepreneur Stephen, founder of WePlant, the second from later-stage entrepreneur David, founder of Midri:

Me and [Name] (his co-founder) met at a networking event ... I gave a talk about what I wanted to do, the concept ... And then [Name] just came up and started chatting. And before that I was like, "I need to find an engineer" ... we started a conversation and we just got to know each other.

[I met my peer group of CEOs] at different events. And then equally introductions. You know, somebody will introduce to someone and then you meet for dinner, you meet for lunch.

These two entrepreneurs had benefitted from introductions made on their behalf, and from the various get-togethers that they attended. But there was no mention of who made the introductions or who organised the events. Nor was there any acknowledgement of who paid for or sponsored the events, and who was paying for the time of the person who made the introduction. This lack of attribution to the source, so to speak, emphasises the 'invisibility' of EDW and ecosystem enablers. One ecosystem enabler interviewee put forth the counterfactual argument to demonstrate this point: he suggested that while much of the EDW activity was invisible to entrepreneurs, they would definitely notice if the various accelerator programmes, events, and meetups were to suddenly cease.

Is Ecosystem Development Work also invisible to policymakers?

Amongst my interviewees were two policymakers, one at Bristol City Council and the other at the West of England Combined Authority. As might be expected, these two individuals, working in economic development functions, were much more familiar with the term 'entrepreneurial ecosystem' and described it accurately, including listing the common institutional elements and referencing its 'joined-up-ness'. For instance, Michael, a senior policymaker at WECA described it as follows (my italics for emphasis):

The ecosystem is about <u>understanding the components</u> [of the business support landscape], mapping those component parts and ... <u>being able to signal to businesses</u>, <u>what is the most effect route for them</u> in terms of accessing the support they need, be that finance, or skills or property. It's about <u>how that joins together</u> ... it's understanding those things and <u>helping businesses to navigate and understand them</u>, and how they get what they need at the right time. <u>[There are] so many different players across the public and private sector</u>, and I tend to focus on the private sector and the kind of local authority, university angle, but you know the banks have a role to play in supporting entrepreneurship, existing businesses, large organisations, there are supply chains in the region, <u>they all have a role to play</u>.

With their awareness of the entrepreneurial ecosystem as a 'whole' (i.e., not just the individual institutional elements), the policymakers differ from the entrepreneurs. The entrepreneurial ecosystem is not invisible to them, and indeed there has been some financial support from the public sector in Bristol to support its ongoing development. This has materialised as investment in infrastructure (council-owned business centres) and also as business support programmes (often run in conjunction with private partners, for example the Chamber of Commerce). To what extent there is a similar awareness amongst policymakers of EDW and ecosystem enablers is a different proposition. Referring again to the above quote, Michael says, "it's about how that joins together" and refers to the roles that are played by the institutional elements of the entrepreneurial ecosystem. But he doesn't elaborate on what or who it is that joins those

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⁷⁶ In conversation with both policymakers, it was clear that a significant proportion of the investment that the public sector had been able to make came from European Union (EU) funding streams, namely the European Regional Development Fund (ERDF) and European Structural Investment Fund (ESIF). Even with that EU funding, the council in particular has had to be creative with finding the funding for the activities it wanted to undertake. My interviewee at Bristol City Council referred to putting up 'in kind' match funding (i.e., diverting existing council employees to work on a specific funded project) and developing consortia with other councils and external partners to match larger-scale funding. The fact that EU funding was coming to an end following on from Brexit was therefore understandably cause for concern, and even in 2019 there were doubts over the effectiveness of the UK government's 'Shared Prosperity Fund' that was due to replace it. My interviewee at WECA also referred to the issues that the available funding for public sector led projects tends to be capital rather than revenue, which has implications on the long-term financial sustainability of 'ecosystem development' type projects.

elements together, thereby ostensibly overlooking EDW activities and the role of ecosystem enablers.

The potential impact of this invisibility on the entrepreneurial ecosystem

As this sub-section has shown so far, ecosystem enablers' activities were largely invisible to entrepreneurs and, albeit to a lesser degree, to policymakers. Ecosystem enablers believed that the EDW they did was contributing towards the overall strength of the entrepreneurial ecosystem, but they were equally aware that their efforts were not always recognised by entrepreneurs and other stakeholders. This mismatch between the ecosystem enablers' own perception of the importance of their work, and the lack of recognition that they received for it, was leading to a sense of disillusionment amongst ecosystem enablers in the Bristol entrepreneurial ecosystem. The desire for recognition did not stem from a desire for plaudits; rather ecosystem enablers expressed concern that without recognition for EDW, the key activities that they were doing to develop the entrepreneurial ecosystem might cease.

The perception of the ecosystem enablers was that the main institutions in the wider Bristol region (namely, the universities and the public sector) didn't understand or recognise the value of EDW. Having given so much of their energy and time to EDW, the paid ecosystem enablers expressed exhaustion at the constant battles to secure funding, and they were frustrated that any funding secured would likely be short-term, in particular due to the uncertainty caused by a lack of clarity around possible funding pots such as the Shared Prosperity Fund (see footnote 76). In Section 6.3 of this chapter, it was outlined that ecosystem enablers' motivations for doing EDW came from their sense of dedication to their community and place, rather than from

a desire for recognition or the desire to earn a good salary, but as the following two quotes suggest, there is a shelf life for how much that kind of intrinsic motivation can sustain an individual. The first quote comes from Louise, who held a convening role at Incubator Z, and the second is from Shaun, the Managing Director of Entrepreneur Network 1:

When I think about, "can I really be bothered with 12 months of really fucking massive uncertainty" I find myself thinking, "yes I can, because I care deeply about this work, and I don't give up on stuff, ever." But how long that goodwill will last, the jury's out.

There's a huge amount that relies on goodwill, and it's really ... it's one thing when you're getting goodwill from someone you know, you can't get goodwill forever from people you don't know. There's lots of those things that we're reliant on ... a huge amount on people being willing to do things. And if that started to break down, it would really damage what's happening here.

For those ecosystem enablers who were unpaid, i.e., those who run events and meetups in their spare time outside of their core income-generating work, the risk was that they would simply stop doing EDW, either because their time and attention might be pulled towards income-generating activities, or because they might lose the motivation to do EDW that is largely unrecognised and unremunerated. There was a sense amongst the community of key paid ecosystem enablers that times were changing in Bristol and the region, and that their hard-won gains (in terms of the strength and visibility of the entrepreneurial ecosystem) might well be in vain. They felt that so much of the work that they had done in the preceding five years to bring success to the Bristol entrepreneurial ecosystem was difficult to articulate (perhaps impossible), and they expressed frustration that the city's and region's main institutions were benefitting from EDW without recognising the ecosystem enablers who were doing it. To what extent this is true or not is perhaps inconsequential for this thesis. The key

takeaway is that if the ecosystem enablers leading on the EDW felt that way, there were potential implications in terms of their commitment to continue doing the activities that contributed to the development of the entrepreneurial ecosystem.

So much of the EDW that both paid and unpaid ecosystem enablers do is intangible and hard to measure. As this chapter has described, EDW involves building relationships, making introductions, facilitating networks, creating a narrative about a place, and much more besides. If EDW remains invisible, the risk is that the individuals who are doing it might lose interest and commitment. A case could be made that the inner workings of the entrepreneurial ecosystem do not need to be made visible: if information flows between institutions, and if entrepreneurs have easy access to resources, do we really need to understand how this happens? Although this is a valid point of view, if EDW is not recognised, it becomes difficult to argue that the ecosystem enabler role is required. Without being able to state why this role is important, it is difficult to fund it for the long term. Without sustained funding for the ecosystem enabler role, those who undertake it voluntarily cannot commit to it long-term. If EDW is not made visible and actively recognised then the ecosystem enablers who have made EDW as part of their role may find that their role is reoriented towards other, more tangible, activities by their employer.

All of this poses further questions about the resilience of an entrepreneurial ecosystem. In an entrepreneurial ecosystem that is resilient, the assumption is that resources are recycled within the ecosystem (Roundy, Brockman and Bradshaw, 2017) or that new resources enter (Malecki, 2018). At the level of institutions, it is feasible to envisage this type of recycling taking place: if one accelerator ceases operations in a particular entrepreneurial ecosystem, then that leaves a

void for another accelerator to come in. Similarly, if entrepreneurship-supportive activity is deprioritised at one university in a region, the likelihood is that another university will step in to fill that gap. At an individual level however, if one person steps away from EDW, it is unlikely that their same role will be replaced: as established in section 6.3, the ecosystem enabler role is personality-driven and relationship-based, and it can take a while to establish those networks and connections. A pertinent question for future research to consider is whether an entrepreneurial ecosystem can withstand the shock of ecosystem enablers leaving their roles.

6.5 EDW and ecosystem enablers within the conceptual model

The first two sections of this chapter have made it clear that there are defined processes occurring within the entrepreneurial ecosystem (Ecosystem Development Work) and specific people (ecosystem enablers) who ensure that the entrepreneurial ecosystem functions well. This section focusses on two of the activity streams within EDW in order depict those relationships within the conceptual model introduced in Chapter 3.

The first activity under consideration is 'facilitating networks and creating communities'. Events and meetups in the Bristol entrepreneurial ecosystem were recognised as opportunities for entrepreneurs to share knowledge and meet new people, including mentors and advisors.⁷⁷

These two potential outcomes of get-togethers are depicted in Figure 23 on the following page, with the addition of dotted lines between 'Get-togethers', 'Mentors & Advisors', and 'Talent'.

⁷⁷ Chapter 7 proposes a further purpose of get-togethers as an opportunity to source talent and potential employees.

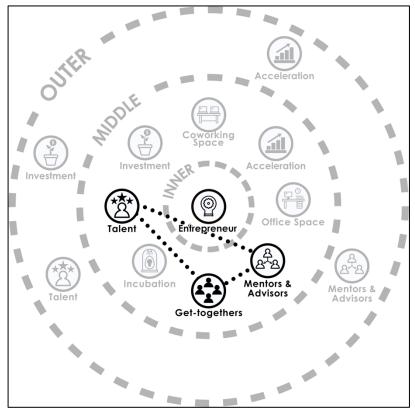


Figure 23: Dotted lines to show the relationship between Get-togethers, Mentors & Advisors, and Talent.

Source: author's own diagram.

The second activity to consider is 'easing information flows between institutions'. In the Bristol entrepreneurial ecosystem, this took place to a large extent via the regular TBBN meetings (discussed in 'easing information flows', section 6.2) which brought together programmes managers and community managers from incubators and accelerators. As described, the purpose of TBBN was to ensure that information could be shared between the different programmes, and to facilitate coordination around events or projects. This particular relationship can be represented in the conceptual model via the addition of dotted lines between the institutional elements 'Acceleration', Coworking Space, and Incubation', as shown in Figure 24, on the following page.

CHAPTER SIX

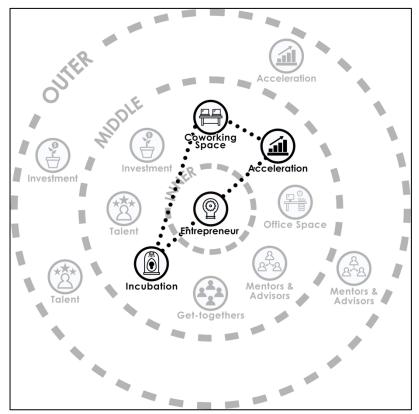


Figure 24: Dotted lines to show the relationship between Acceleration, Coworking Space, and Incubation.

Source: author's own diagram.

The significance of representing these two EDW activities in the conceptual model is that it makes it explicit that there are certain ongoing activities within an entrepreneurial ecosystem. The corollary of depicting links between institutions within the conceptual model is that it makes it explicit there are individuals (ecosystem enablers) responsible for ensuring that this happens. By highlighting the processes that contribute to the entrepreneurial ecosystem functioning, and people who lead on those activities, it is possible to see the variety and density of networks within the entrepreneurial ecosystem, between institutions as well as between institutions and entrepreneurs. Depicting this in the conceptual model brings dynamism to the entrepreneurial ecosystems phenomenon.

6.6 Conclusion

This chapter opened with the following research question (RQ2), "What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?". The extant literature does not satisfactorily identify all of the processes that occur within and between institutions and stakeholders in the entrepreneurial ecosystem. This chapter has outlined four strands of activity which, it is argued, are key for us to understand the mechanisms and processes which make entrepreneurial ecosystems function. These four strands of activity are: making introductions and signposting entrepreneurs; facilitating networks and creating communities; easing information flows between institutions; and constructing the narrative of the entrepreneurial ecosystem. Together, they are termed Ecosystem Development Work (EDW), introducing new vocabulary to the field. The literature acknowledges the importance for entrepreneurs to be wellnetworked, and also highlights the role that events and meetups play within an entrepreneurial ecosystem. But these are just two aspects of EDW. The contribution of this chapter has been to bring together these two recognised facets with two further important processes that are currently under-explored in the literature: easing information flows between institutions and constructing the narrative of the entrepreneurial ecosystem. Easing information flows between institutions is key for us to start to understand how the institutions within an entrepreneurial ecosystem coalesce. This latter point is under-theorised in the extant literature. By recognising and acknowledging EDW, we can start to unpack the mechanisms in how an entrepreneurial ecosystem functions. Collaboration between institutions relies on individuals within those organisations to be proactive and communicate with their counterparts. In other words, it is

the *people* within those institutions who are key to unlocking the coalescence of an entrepreneurial ecosystem.

This leads to the second contribution of this chapter: introducing new terminology, 'ecosystem' enablers' were described and defined, incorporating the full breadth of EDW that these individuals carry out. The attributes and motivations of ecosystem enablers were then explored. It was shown that sometimes the ecosystem enabler role is paid, and sometimes it is voluntary and unpaid. Regardless of this difference, ecosystem enablers share similar motivations and attributes. The case was made that the role of an ecosystem enabler is personality-driven and relationship-based, in particular related to the concepts of trust, social capital, and embeddedness. In shining a light on the non-entrepreneur actors within an entrepreneurial ecosystem, this chapter extends the existing concept of a 'dealmaker' or 'bridging asset' to bring some clarity and recognition to this important role. To be an ecosystem enabler implies that an individual plays a role in sustaining, promoting, and developing the entrepreneurial ecosystem itself. The extant literature refers to ecosystem actors merely in terms of how they relate to the entrepreneurs themselves and does not go further in exploring their role within the wider entrepreneurial ecosystem. To be listed alongside the institutional elements is to relegate these actors to a bit part in the overall entrepreneurial ecosystem, whereas what this chapter aims to highlight is that it is their dedication to the role that unlocks the functioning of the entrepreneurial ecosystem.

The third section of this chapter looked at how both EDW and ecosystem enablers are perceived by entrepreneurs and by policymakers. It was established that entrepreneurs do not

'see' the entrepreneurial ecosystem as a whole, nor do they fully realise the EDW that goes on 'behind the scenes' despite it bringing them tangible benefits. Policymakers were shown to have a greater awareness of the entrepreneurial ecosystem, and to a lesser extent, EDW and ecosystem enablers. The implications of this 'invisibility' were discussed, in particular in relation to the resilience of the entrepreneurial ecosystem.

The final section of this chapter used the conceptual model introduced in Chapter 3 to demonstrate how EDW can be visualised within an entrepreneurial ecosystem. By making these institutional-level relationships explicit, the conceptual model brings dynamism to the concept, and emphasises the importance of the ecosystem enabler role.

How this chapter contributes to knowledge is by uncovering the processes (EDW) and people (ecosystem enablers) within an entrepreneurial ecosystem, thus adding to our understanding of the underlying mechanisms. The practical contribution is to highlight the oft unseen and under-valued work that goes on behind the scenes of the entrepreneurial ecosystem. Armed with this knowledge, policymakers and practitioners can better advocate for funding that specifically helps them to develop the entrepreneurial ecosystem as a whole.

CHAPTER 7. An analysis of how entrepreneurs experience and perceive the Bristol entrepreneurial ecosystem

7.1 Introduction

This chapter responds to RQ3: "How do entrepreneurs experience and perceive the entrepreneur". This research question allows for the voice of the entrepreneur to be brought to the fore, in order to uncover their experiences of and perspectives on the Bristol entrepreneurial ecosystem. The findings outlined in this chapter respond to a gap in the entrepreneurial ecosystems literature whereby the term 'entrepreneur' is not sufficiently interrogated. Beyond acknowledging their ambition (Stam and Spigel, 2017), we do not know whether the entrepreneurs referred to in the extant literature are just starting out with limited professional experience, whether they are serial entrepreneurs, or whether they have substantial corporate experience and are embarking on their first solo venture.

This chapter unpacks the term entrepreneur, showing that there are variations in how an entrepreneur experiences the entrepreneurial ecosystem depending on both their own experience of being an entrepreneur (early-stage or later-stage) and on the stage of their business (startup or scaleup). Through an analysis of the empirical material, I argue that the same available resources within the Bristol entrepreneurial ecosystem are employed differently by different entrepreneurs, depending on the stage of their company, and depending on the extent of their experience as a founder.

This chapter is structured in three sections. The opening section of the chapter provides a rich description of how entrepreneurs experience the entrepreneurial ecosystem by considering their interactions with a selection of its institutional elements: their participation in accelerators; the extent to which they were active in attending get-togethers; how they sought to raise investment; and how easily (or not) they were able to access physical space from which to grow their companies. While the experiences of entrepreneurs are individual to each person, this opening section demonstrates there are some generalisations that can be made across groups of entrepreneurs who share certain characteristics. The findings that emerge from this section are twofold. First, it is shown that early-stage entrepreneurs (who are just starting out with their first venture) experience the entrepreneurial ecosystem in a different way to later-stage entrepreneurs (those who are working on their second or later venture). Second, the argument is made that the local entrepreneurial ecosystem responds well to the needs of startup founders, but that the founders of scaleups have to look outside the geographic boundaries of the entrepreneurial ecosystem in order to find the resources they need to scale their business.

In the second section of this chapter, it is argued that the entrepreneur's conceptualisation of an entrepreneurial ecosystem (i.e., what the entrepreneurial ecosystem 'looks like' to them) is informed by their experiences. It is shown that early-stage entrepreneurs' conceptualisation of the entrepreneurial ecosystem is based on their experiences of locally available resources, whereas later-stage entrepreneurs have a more expansive conceptualisation of the entrepreneurial ecosystem because of their need and ability to access resources that are not locally available. The conceptual model introduced in Chapter 3 is employed here to

demonstrate how these different conceptualisations of the entrepreneurial ecosystem can be visualised. In making this argument, this section builds on the findings of Chapter 5 to show that the entrepreneurial ecosystem for later-stage entrepreneurs is constructed relationally more than geographically, given that they are less likely to engage locally and far more likely to build their own entrepreneurial ecosystem by piecing together elements that they need from outside its geographic boundaries.

The third and final section of this chapter seeks to position the entrepreneur as an active agent within the entrepreneurial ecosystem through their propensity to 'give back'. In the extant literature, entrepreneurs are the de-facto (passive) beneficiaries of the support provided by institutional elements: the output of an entrepreneurial ecosystem is productive entrepreneurship, and it is entrepreneurs who make that happen by drawing on resources available in the entrepreneurial ecosystem. Whilst it is recognised that serial entrepreneurs can play a role within an entrepreneurial ecosystem as mentors or role models (Lichtenstein and Lyons, 2001; Spigel and Vinodrai, 2020), this approach implies that a serial entrepreneur is just one of the many institutional elements that comprise the entrepreneurial ecosystem. The empirical fieldwork shows however, that that both early-stage and later-stage entrepreneurs have a role to play in shaping the Bristol entrepreneurial ecosystem. The readiness of entrepreneurs at all stages to 'give back', whether that is through mentorship or other forms of support, shapes the overarching culture of the entrepreneurial ecosystem and contributes towards its functioning.

This chapter extends our understanding of the entrepreneur experience and their perspectives in two ways. First, by demonstrating that entrepreneurs' engagement with institutional elements depends on their experience as founders and on the stage of their business, it becomes possible to see that the same entrepreneurial ecosystem can be perceived and interpreted in different ways. In addition, by demonstrating empirically that later-stage entrepreneurs need to look outside of the Bristol entrepreneurial ecosystem to access the resources they require, this chapter adds weight to the argument presented in Chapter 5: that the entrepreneurial ecosystem is a geographically- and relationally-bounded concept, with a distinct 'inside' and 'outside'.

Second, this chapter grants agency to entrepreneurs, moving them from being passive beneficiaries of the entrepreneurial ecosystem, to individuals who can shape and influence its future direction through their proclivity to 'give back'. This chapter contributes to the thesis by foregrounding the experiences and perspectives of entrepreneurs, and in doing so, these findings bring a valuable and heretofore overlooked perspective on entrepreneurial ecosystems. With a greater understanding of how entrepreneurs experience the institutional elements of an entrepreneurial ecosystem, it becomes possible to uncover the mechanisms of the concept.

7.2 How entrepreneurs experience the entrepreneurial ecosystem

Different entrepreneurs have differing experiences of the Bristol entrepreneurial ecosystem.

This opening section uncovers the commonalities between entrepreneurs based on whether

they are early-stage entrepreneurs or later-stage entrepreneurs. I will also highlight where those same later-stage entrepreneurs reflected on their business journey as early-stage entrepreneurs. This first section of the chapter is divided into four sub-sections. Each subsection discusses a different institutional element of the entrepreneurial ecosystem to explore how they are experienced by entrepreneurs: accelerator programmes; events and meetups; raising investment; and accessing space. Each aspect is considered from the viewpoint of early-stage and later-stage entrepreneurs.

7.2.i Participating in accelerator programmes

One of the commonly agreed-upon elements of an entrepreneurial ecosystem is the existence of 'support services' (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Brown and Mason, 2017; Stam and Spigel, 2017). This wide-ranging term includes accelerator programmes and incubators which provide learning opportunities for entrepreneurs and which facilitate their access to networks, mentors, and peers. This sub-section considers the experiences of entrepreneurs in the Bristol entrepreneurial ecosystem from the point of view of their level of engagement with accelerator programmes.

Out of the ten entrepreneurs who were interviewed in Bristol, six had taken part in at least one accelerator programme, as shown in Table 11 on the following page. Four of these were early-stage entrepreneurs (Stephen, Ryan, Graham, and Jennifer), and two were later-stage entrepreneurs (Natalie and David).

TABLE 11: HOW ENTREPRENEURS UNDERSTAND / USE THE PHRASE ENTREPRENEURIAL ECOSYSTEM

Company	Name	Type of business	Stage of business	Stage of entrepreneur	Participation in acceleration programmes?
GuideWay	Natalie	Product-led	Scaleup	Later-stage	Yes - one
Midri	David	Agency/Consultancy	Scaleup	Later-stage	Yes - one
Pangloss	Craig	Product-led	Scaleup	Later-stage	No
ChipAl	Stuart	Product-led	Scaleup	Later-stage	No
Black Rose	Graham	Service-led	Scaleup	Early-stage	Yes - one
WePlant	Stephen	Product-led	Startup	Early-stage	Yes - several
MultiJobPro	Ryan	Service-led	Startup	Early-stage	Yes - one
Knowledge Ways	Taylen	Agency/Consultancy	Startup	Early-stage	No
Precisely Social	Jennifer	Agency/Consultancy	Startup	Early-stage	Yes - several
FR3	Melanie	Agency/Consultancy	Startup	Early-stage	No

Source: Table devised by the author

In the following pages, the experiences of early-stage and later-stage entrepreneurs will be described in turn. Subsequently, there will be a consideration of the four entrepreneurs who did not take part in an accelerator programme (two early-stage and two later-stage).

Early-stage entrepreneurs' experiences of acceleration programmes

For early-stage entrepreneur Graham, applying to an accelerator was his first step as the founder of his company, Black Rose. Graham described himself as a "mid-career step-out" who had at least two decades of professional experience in a corporate setting, most recently in a senior global role. Despite this wealth of professional experience, Graham recognised that he lacked the knowledge specific to starting a company: "So I quit [my job] and I started Black Rose. I applied to Accelerator S, because I kind of figured, I don't know what I don't know." For Graham, being part of Accelerator S was when "things started to go a bit faster" for his business. Through the accelerator programme, he met three individuals who would go on to play vitally important roles in his business: one person would become his Chief Technology Officer, another became his first investor, and a third joined his board as Chair. Graham also

valued the peer support that came with being part of the accelerator. Not only did Accelerator S provide Graham with knowledge and peer support, but he confirmed that it also provided an entry point into the entrepreneurial ecosystem as a whole, thus broadening his network of relevant contacts.

Early-stage entrepreneur Stephen had graduated from university only a few years prior to setting up his company, WePlant, and had only had one administrative job within an entrepreneurship-support unit before becoming a startup founder. For him, accessing support on the fundamentals of running a business was important:

I think the benefit of being clearly inexperienced when you start is that you have no preconception about your own knowledge. Like genuinely, when I started this business I had no idea how to run a business. When you're that, you just look for anyone who can tell you how to do it. [Taking part in an accelerator] is a really useful grounding in startups.

Stephen decided to take part in Accelerator R based in London because the programme was more relevant for his industry sector than any of the accelerator programmes available in Bristol. Stephen and his co-founders took it in turns to travel to the capital city to attend the twice-weekly accelerator programme sessions, thus splitting the considerable attendance commitment between the three of them. At the start of his business journey, Stephen placed a higher value on having access to sector-specific knowledge from an accelerator which was based geographically outside of the Bristol entrepreneurial ecosystem, over and above being able to access local peer-to-peer support via a non-sector-specific accelerator programme in Bristol. Increasing his own knowledge about how to run a startup was the primary driver for his participation in an accelerator. At this point, Stephen had been living in Bristol for several years

and working in the field of entrepreneurship support, so he felt that there was less urgency for him to use an accelerator programme as a way of embedding himself into local networks.

In contrast, for Ryan, the motivation to take part in an accelerator programme was primarily to get to know people in the Bristol entrepreneurial ecosystem and broaden his networks. After leaving his job working for a professional services firm in London, Ryan moved to Bristol to work full-time on his startup. MultiJobPro. He was new to the city and saw that participating in a Bristol-based accelerator would be a good way to expand his local network and embed himself in the entrepreneurial community. Moreover, the accelerator programme that he was accepted onto, Accelerator S, provided affordable coworking space as part of the package, which was a further attraction. Ryan was scathing about the actual business support he received – he recognised that while the accelerator's pool of mentors comprised experienced business leaders, he felt that they lacked the specific experience of scaling software companies, and as a result, he opined that their advice was "dated". However, Ryan acknowledged that the accelerator played a key role in introducing him to his company's first investor who then went on to invest in MultiJobPro's second fundraising round. Ryan's experience confirms that an accelerator programme can be helpful in getting 'warm introductions' to relevant individuals such as investors.

At the time that I interviewed her, Jennifer had taken part in three accelerators, all of which were Bristol-based. Accelerator T came with a small amount of funding which allowed her to buy a laptop and get business insurance. However, she found that the information and resources that Accelerator T provided were not useful to her business because "they were

based around products not services [so] I did not understand the finances [of a service-based business model] at all." This led her to seek out support from Accelerator U which connected her with a mentor from her specific industry sector. The third programme that she participated in was Accelerator W which came with free coworking space. She found this to be a really helpful environment because of the peer support from others on a similar journey: "Everyone [was] running and hustling and doing the same things ... not at the same level because [we had] different years of experience, but all at the same level of hunger." Jennifer's experience speaks to the many ways in which an accelerator programme can help early-stage startups. Providing access to peer support and entrepreneurial knowledge is often the main draw for inexperienced entrepreneurs to take part in accelerators (Gebczynska and Kwiotkowska, 2019; Madaleno et al., 2021).

Later-stage entrepreneurs' experiences of acceleration programmes

Turning to the experiences of the later-stage entrepreneurs, both Natalie and David had established their companies by the time they took part in an accelerator programme. Natalie's company, GuideWay, had existed for around three years when she decided to join an accelerator, but it was still small in that it was comprised of five founder-employees. Her decision to join Bristol-based Accelerator S came once she felt that the company had proved the concept and she was ready to scale the business: "[Accelerator S provided] the stabilisers that [we] need[ed] for [our] company." At the time that I interviewed her (over two years after her participation in Accelerator S), her company employed 30 people in Bristol, and had a further 20 employees who were based in India as part of an outsourced software development team. What she valued from taking part in Accelerator S was threefold: first, the learning and

access to mentors; second, the connections to professional services; and third, the networking.

She described the latter as follows:

Having a network of people around you who are going through similar things, you can grow up together, they become your peers. Often you encounter similar things. It's simply a rollercoaster ride so it's nice having other people along for the ride.

At the time that David joined Accelerator V (a growth-focussed accelerator based in another part of the UK), his company Midri already employed 30-40 people. When I interviewed him a few years after taking part in Accelerator V, Midri had expanded to employ 200 people in total, the majority based in Bristol, with two outsourced teams in Eastern Europe. David credited Accelerator V with giving him the knowledge and confidence that he needed to scale his company. Accelerator V brought together CEOs at a similar stage and took them through a year-long course covering all aspects of business: from recruitment and finance to sales and business planning. David was willing to travel a 100+ mile journey to take part in Accelerator V because he struggled to find that type of support and knowledge within the Bristol entrepreneurial ecosystem at that time. As well as the practical learning, David found the peer-to-peer support with fellow CEOs to be incredibly valuable:

It's amazing how you can open up with another CEO and you just laugh about things. Ok well you realise you have the same problem. And the pattern is the same. Staff, motivation, millennials, all of this comes up, very trendy ... and you know, access to finance, loans, banks ... it's all the same. Clients, sales, attention.

Non-participation in acceleration programmes

Out of my interviewees, four entrepreneurs did not take part in an accelerator. Two of these entrepreneurs were later-stage, and two were early-stage. The two early-stage entrepreneurs

who did not take part in an accelerator, Taylen and Melanie, did not perceive a need to do so, in part because of the type of business they were running. Taylen was the founder and CEO of a small education consultancy which ran back-to-work and upskilling initiatives. His ambition for his business was not to scale those initiatives; rather, his focus was on how he personally could influence larger businesses to take on more apprentices and change their hiring practices. Because Taylen's consultancy was based very much on him as an individual, he did not feel that an accelerator programme would have added any value. Melanie was the founder and CEO of a recruitment company which employed 13 people, all of whom came from recruitment backgrounds, and therefore had substantial relevant experience in the field. She had ambitions to grow her company by employing more people and franchising to new cities. She had not found any accelerator programmes that were relevant to her type of business. Nor did she need an accelerator programme to access peer support; she was very active in running and attending meetups, and as a result had built good relationships with peers who she would turn to for advice. The experience of Taylen and Melanie reflects the fact that accelerator programmes are designed for technology startups (Miller; Paul and Kirsten, 2011) rather than companies with an agency or consultancy type business model.

Craig and Stuart were two later-stage entrepreneurs who did not take part in an accelerator programme. Craig had worked at a senior level in financial services in locations across the globe and was very well connected nationally and internationally. He also had an investor on board before launching his company. These factors were influential in his decision to start his company, Pangloss. Craig moved his family to Bristol from another country at the time that he started Pangloss, but despite being new to the city, he did not seek out a locally based network:

I wasn't in need of company, I think [in] my career ... I'd solved the resilience, loneliness thing, and I am very happy with it. I like the benefits of the leadership role and I'm happy to live with the other side. So, no I wasn't looking for [support, connections, or networks] ... which is maybe a bit atypical.

He expressed the view that his family was his bedrock, and he relied predominantly on friends and contacts from his previous career to provide him with the support and mentorship that he needed:

The tens of people that I tend to reach out to are often not in Bristol because [if] I've just got this really big problem that I need the best mind on, I don't need the best Bristol mind, I need the best mind [in the world] and I'm likely to have access to that. So [for] the marketplace, I'm talking to a guy in [name of home country] who built ... a massive e-fashion business. Because that was lifestyle, it was branded, that's where we're going, so he's the guy I'm sound-boarding, it's just who I need. I don't interact on a local basis.

Similarly to Craig, Stuart had exited his previous business and took some time out to assess the market before launching his current venture alongside a co-founder:

We knew some of the people, and basically spent time researching that whole market space [in machine learning], managing to meet many of the leading innovators in that space to work out what were some of the challenges, [and] was there an opportunity for a new processor in that market, which there clearly was. That was really what drove us to start Chip-AI.

Stuart had lived and worked in Bristol nearly his whole life, so he was very well connected locally, and had a strong professional network nationally and globally. His founding team and early investors all came on board because of these pre-existing networks. From both a learning point of view and a networking point of view, it is unlikely that Stuart would have gained anything from taking part in an accelerator programme. As well as being well connected locally,

Stuart (like Craig) also had a global network to tap into when he needed advice, and it was often to contacts outside of the Bristol entrepreneurial ecosystem to whom he turned:

With no disrespect to the community in Bristol, I don't think that help and expertise exists here. Most of the people that we were discussing with were people who had been there and done it before ... people at Silicon Valley, VCs [Venture Capital firms] who had funded big companies and who were willing to give their help and advice. Unfortunately, there probably isn't a big community in Bristol who have that expertise of building global companies.

These two later-stage entrepreneurs had significant experience in running businesses. Both had exited previous companies, and both had several decades of experience working in a related professional field. This experience of having started and scaled a company to the point of exit is invaluable for any future entrepreneurial endeavour, and to a large extent, it is this type of knowledge that an accelerator programme aims to teach entrepreneurs: to 'fast-track' them from early-stage to more experienced (Beauhurst, 2020). Building a network is valuable, no matter what stage of business or how much experience an entrepreneur has. However, the experience of Stuart and Craig showed that they did not feel a need to build their networks locally within the (perceived) confines of the Bristol entrepreneurial ecosystem – their prior professional experience at senior levels in global companies had granted them access to experts across the world to whom they could turn for advice. This is a significant exception to the observation that dense entrepreneur networks tend to be local (Spigel, 2017). The global connectivity that Craig and Stuart enjoyed could only come through their lived experience as later-stage entrepreneurs who had scaled companies. That being said, the cases of later-stage entrepreneurs Natalie and David show that there was still value in acceleration programmes

that responded specifically to the needs of companies at particular points in their growth trajectory.

7.2.ii Attending get-togethers

Events and meetups (collectively termed in this thesis as get-togethers, as shown visually in Chapter 6, Figure 22, page 238) are not explicitly acknowledged as elements in the institutionled frameworks, however the frameworks do point to the importance of networks (Neck et al., 2004; Stam and Spigel, 2017), startup communities (Feld, 2012; Brown and Mason, 2017), and access to peer support (World Economic Forum, 2013). The entrepreneurial ecosystems literature makes an implicit assumption that all entrepreneurs benefit in the same way from attending get-togethers. What the empirical evidence shows however is that early-stage entrepreneurs have very different motivations for attending meetups and events compared to later-stage entrepreneurs, and it is this nuance that is lacking in the extant literature. This subsection delineates the extent to which entrepreneurs engage in get-togethers in the entrepreneurial ecosystem, and their motivations for doing so (or not) depending on the stage of their business and their own professional background. Table 12 on the next page sets out an overview of entrepreneur engagement, ranging from no engagement personally but a recognition of the importance of get-togethers, to less engagement now than in the early days of the business journey. 78

⁷⁸ Table 12 also shows that three of the entrepreneurs (Taylen, Jennifer, and Melanie) were also actively running events and meetups. In this respect, these three entrepreneurs are acting as unpaid ecosystem enablers, as described in Chapter 6, because they were doing this work voluntarily in addition to running their businesses.

TABLE 12: Entrepreneurs' participation in get-togethers (meetups and events)

Company	Name	Type of business	Stage of business	Stage of entrepreneur	Participation in get-togethers?
GuideWay	Natalie	Product-led	Scaleup	Later-stage	No, but staff run events for talent
Midri	David	Agency/Consultancy	Scaleup	Later-stage	No, but staff run events for talent
Pangloss	Craig	Product-led	Scaleup	Later-stage	No, but staff run events for talent
ChipAl	Stuart	Product-led	Scaleup	Later-stage	No, but staff run events for talent
Black Rose	Graham	Service-led	Scaleup	Early-stage	Less now, but yes in early days
WePlant	Stephen	Product-led	Startup	Early-stage	Less now, but yes in early days
MultiJobPro	Ryan	Service-led	Startup	Early-stage	Less now, but yes in early days
Knowledge Ways	Taylen	Agency/Consultancy	Startup	Early-stage	Yes, and actively running events
Precisely Social	Jennifer	Agency/Consultancy	Startup	Early-stage	Yes, and actively running events
FR3	Melanie	Agency/Consultancy	Startup	Early-stage	Yes, and actively running events

Source: Table devised by the author

Over the following pages, the extent to which early-stage entrepreneurs and later-stage entrepreneurs participated in get-togethers will be considered in turn.

Early-stage entrepreneurs attending get-togethers

The common reflection amongst early-stage entrepreneurs in Bristol was that they attended many more events and meetups in the early days of their businesses but stopped participating regularly once their businesses started to grow. Attending get-togethers in the early phase of their businesses was seen by all early-stage entrepreneurs as a strategic priority: the reasons stated were to meet co-founders or potential employees, and to extend their networks.

Stephen met his two co-founders at events in Bristol, one which was a general entrepreneurship networking event, and the other which was specific to the industry sector in

which his business was operating. At the general entrepreneurship networking event, he gave a brief talk about the concept behind his business idea – this was before he had even started his company – and an audience member came to talk to him about it afterwards. This person was attracted to the business that Stephen wanted to build and ultimately joined him as a cofounder. Similarly, at the industry-specific event, Stephen spoke to another attendee about his nascent company, and this person then came on board as the third co-founder. Three years had passed since those events, and when I interviewed Stephen, he admitted that he only went to a few selected get-togethers, and then only in "quite a targeted way." What was stopping his active participation was the fact that:

The three of us co-founders [don't] have enough resource to be attending networking events. In fact, at the moment, we're actively avoiding it because we've got more important things to do.

This chimes with the experience and approach of other entrepreneurs, both early-stage and later-stage. Later-stage entrepreneur David questioned the drive and commitment of founders who still had the time to attend get-togethers:

I think the founders that are really getting on with [growing their business] don't have time for networking, and it's the ones who don't have that drive and focus [who] seem to have more time for it.

Another early-stage entrepreneur, Graham, recounted how he "invested time in going to those meetups" in the early days of starting his business: "I spent a lot of time in the first year going to pretty much every meetup I could find." However, once he was at the helm of a business which had recently expanded its workforce to over 30, his attendance at get-togethers had waned: "Now I don't go to events really … I don't do the meetups unless frankly there is

something very discrete in it for me and my business." Ryan, an early-stage entrepreneur who moved to Bristol without knowing anyone, also started out on his business journey by attending get-togethers. This was despite his self-professed dislike of networking: "I'm not someone who does networking very much ... I find that networks, the more generic they get the more useless they get." As Ryan's network expanded, and as he gained knowledge and experience, he made the conscious decision to stop attending get-togethers as regularly.

Later-stage entrepreneurs attending get-togethers

Later-stage entrepreneurs often already have a community of peers, as established in the previous sub-section on accelerators. In the case of the Bristol-based later-stage entrepreneurs who were interviewed, these networks consisted of individuals they had met over the course of their professional careers preceding their entrepreneurial journey. As a result, the later-stage entrepreneurs who were interviewed were less likely to engage in the local meetups and events; their need to broaden their networks within the Bristol entrepreneurial ecosystem was not as pressing as for the early-stage entrepreneurs. Despite not attending get-togethers regularly, all four later-stage entrepreneurs who were interviewed recognised the value of events and meetups, albeit for quite different reasons to the early-stage entrepreneurs. Whereas the early-stage entrepreneurs saw get-togethers as a way to meet new people and broaden their networks, the later-stage entrepreneurs considered get-togethers to be a key part of their recruitment strategy and as a way to 'give back' to the entrepreneurial community.

This is exemplified by the approach that was taken by later-stage entrepreneur Natalie. As an alumni of Accelerator S, she continued to attend the events that the accelerator hosted

because she felt that this was a way for her to demonstrate that she was still part of that network and that she was still supportive of the accelerator. She also said that it was important for her to 'give back' to the community which helped her during her company's startup phase:

We try and give back as much as we can to this community, definitely. My team very often run workshops on technical areas ... also with under-represented groups too [such as women], in tech specifically.

In this, Natalie evidently recognises that get-togethers are an important way for knowledge to be imparted (in her case, technical knowledge) and that get-togethers can provide a sense of kinship and mutual support amongst entrepreneurs (the women in tech meetups that she was involved in organising).

Throughout his interview, later-stage entrepreneur David talked a lot about the importance of community. He had moved his scaling company into the centre of Bristol from the outskirts precisely so that he could be part of what he perceived to be a 'community' of growth-focussed entrepreneurs. With a young family and the responsibilities of being CEO, David felt that he did not have the time to spare to attend events and meetups: "If you're in a business, you have to be very very precious about your time and you have to navigate it very carefully." Rather, he leaned on his existing professional networks for advice, and strategically sought out key people of influence within the Bristol entrepreneurial ecosystem who could make introductions for him. However, like Natalie, he saw the value of get-togethers from the point of view of being a visible part of a community, and he was active in ensuring that his staff could dedicate the time to attend get-togethers. He also saw value in committing company resources towards running events. Some of these were technical workshops hosted by his employees: "... for either senior

management who used to be technical ... or non-technical people who'd like to do something in this space." Other events were co-organised with partners:

We'll do [the] hosting, maybe catering, we would maybe do a speech or something like that, but [it's] people from the community [who] organise the events here. Good for us, good for the organisers, and good for the community. So almost like the community organise[s] events for themselves with our support. That's the strategy.

The strategy to which David refers in this latter quote is one whereby he envisaged that the events hosted by his company could be a way of attracting future employees. He also encouraged his employees to attend events and conferences as a way of learning new skills and meeting future potential colleagues. The value that David, as a later-stage entrepreneur, saw in get-togethers came down to the opportunity to build his company's reputation as a great place to work, seeking potential new hires, and as providing learning opportunities for members of his staff.

Craig and Stuart were the two interviewees with the most experience as entrepreneurs, both having started, scaled, and exited ventures previously. Stuart had been in the Bristol region for many more years than Craig, and as a result he had well-established local and regional networks. Stuart said that he would attend get-togethers, but usually only ones where he had been invited to speak; he did not see events and meetups as an important way to build or maintain his professional relationships. Craig relied on his contacts across the world for advice and guidance, and had no real interest in actively building his connections locally: "I actively avoid [the meetups]." Stuart and Craig's approach to get-togethers was similar: as experienced

founder-CEOs of scaleups, they rarely, if ever, attended any meetups or events. Similarly to David however, they encouraged their employees to attend for learning opportunities.

In another parallel to David, both Craig and Stuart saw get-togethers as a way to attract new employees. Craig described how his company sponsored one of the major meetups for software developers in Bristol: "We do it because it's for talent, but also because it supports the ecosystem. Our learnings go into that meetup, we get them back." Craig spoke about his company's recent strategy to "do the meetups ... with aggression for recruitment." His perception was that recruitment had changed in recent years, and get-togethers had become a primary way to attract talent:

We can't just be phoning recruiters and seeing CVs, we've got to engage with the community and get them warm to us that they start approaching. [Meetups are] where we're going to meet [potential employees], you know, and it's a very natural way to have a conversation about talent and the [potential] jobs.

For Stuart, having access to talent was critical for his company's expansion. Bristol was one of four global cities that he considered when setting up his company, all four cities having internationally renowned specialist expertise in his industry sector. Stuart recognised that meetups and events were a critically important way to engage with the entrepreneurial community as well as being a source of potential employees.

7.2.iii Accessing investment

Access to capital and funding support is a key attribute of the six institution-led frameworks for entrepreneurial ecosystems. Startups need financing, and this can come from a range of sources, including business angels, banks, and VC firms (Brown and Mason, 2017). While the

literature is clear that investment is an important element of an entrepreneurial ecosystem, the actual experience of entrepreneurs in accessing investment is not made explicit. Unlike participation in an accelerator or attending get-togethers, both of which appear to be determined by the level of experience an entrepreneur has as an individual, the need to access investment is determined by the stage of business. This sub-section therefore consider access to investment from the point of view of startups and scaleups. Table 13 shows a clear demarcation between the product-led and service-led companies, all of which had sought investment or were actively seeking investment, and the agency/consultancy-type businesses which had not sought investment and were unlikely to do so.⁷⁹

TABLE 13: ENTREPRENEURS' EXPERIENCES OF RAISING INVESTMENT

Company	Name	Type of business	Stage of	Stage of	Have raised
			business	entrepreneur	investment?
GuideWay	Natalie	Product-led	Scaleup	Later-stage	Yes as a startup
Midri	David	Agency/Consultancy	Scaleup	Later-stage	No
Pangloss	Craig	Product-led	Scaleup	Later-stage	Yes
ChipAl	Stuart	Product-led	Scaleup	Later-stage	Yes
Black Rose	Graham	Service-led	Scaleup	Early-stage	Yes
WePlant	Stephen	Product-led	Startup	Early-stage	Yes
MultiJobPro	Ryan	Service-led	Startup	Early-stage	Yes (seeking)
Knowledge Ways	Taylen	Agency/Consultancy	Startup	Early-stage	No
Precisely Social	Jennifer	Agency/Consultancy	Startup	Early-stage	No
FR3	Melanie	Agency/Consultancy	Startup	Early-stage	No

Source: Table devised by the author

The following paragraphs first describe the experience of startups in accessing investment (including the scaleups reflecting on the early startup phase of their business), and then move on to describe the experience of scaleups.

product or service.

⁷⁹ The extent to which a company needs angel or equity investment to fuel their growth is perhaps the clearest indicator of the differences between the agency/consultancy business model and the business model of techdriven product- or service-based companies. The former scale by hiring more employees or consultants who are specialised in the service that is offered; the latter scale by investing in the technology that underpins their

Accessing investment as a startup

As for many startups, the very first 'investment' that was made in Stephen and Ryan's respective startups came from their own pockets. Neither entrepreneur paid themselves a salary in the early days of their entrepreneurial journey. Ryan had left his previous job with a financial package that bought him some time to work unremunerated on the idea that would become MultiJobPro. Stephen started his company WePlant whilst in full-time employment and worked on it part-time for a year and a half. He was then successful in receiving a £50,000 Innovate UK grant which allowed him to leave his permanent employment to work full-time on his business. Alongside the Innovate UK grant, Stephen was able to access smaller pots of money: "We were pretty hot on applying for things ... we [got some] small entrepreneur grants which did exactly what they should have done [before we] finally got into the early-stage stuff." The early-stage investment came from Accelerator R, a sector-specific business support programme based in London. Accelerator R invested £20,000 for a small equity stake in WePlant and provided wrap-around business support. To make the investment go as far as possible, Stephen and his co-founders would stay with friends in London to limit expenditure on accommodation costs when attending the accelerator's learning sessions. During this time, WePlant launched their first investment round and were successful in raising £450,000 from a syndicate of angel investors based in Bristol.

The grants that WePlant received in the early days did not provide enough to pay salaries, so Stephen's strategy was to use externally paid interns to initially staff his fledgling business.

These internships were funded by the University of Bristol, and were primarily designed to give the university's students some work experience. Not only did this scheme enable Stephen to

get his business off the ground at minimal cost, but it also provided valuable careers experience for the students who took part. Once Stephen raised his first round of funding, he was then able to start paying salaries for himself and his co-founders, and he hired some of the interns on a full-time and permanent basis.⁸⁰ Stephen acknowledged that while that first round of £450,000 was sizeable, it still placed certain constraints on who WePlant could afford to employ:

We knew we needed a decent number of people, and we knew we couldn't afford [to pay big salaries]. If we wanted that amount of people, we needed to recruit people with talent over experience, because ... we knew we couldn't exceed £30k [salaries] per annum, it just wouldn't work ... Without being ageist that does push you towards certain ends of the experience spectrum which is an unfortunate consequence.

Ryan started working on his company in the last two months of his employment at a professional services firm. Once he left his paid employment, Ryan worked salary-free on his company for the first year. Ryan was able to take the annual bonus he received from his exemployer and put that towards the development of his company's first software application (app). Despite this app being "one of the worst MVPs [Minimal Viable Product] I've ever seen", Ryan was able to trade with it for the first 12 months and start to put it in front of paying customers. His approach was to 'bootstrap' his company for as long as possible (i.e., build it as quickly and cheaply as possible to the point at which it could generate revenue) without seeking any external investment:

We did 12 months where I was unpaid, my business partner was unpaid for 12 months, we had no investment, we had some pretty ropey periods of no use ... and then we

⁸⁰ This example also shows how a relatively simple scheme for the University of Bristol to set up resulted in employment opportunities for its students as well as contributing to the economic growth of the city.

landed our first consistent good brand user ... and basically the business was built on them. We fundraised off the back of that effectively, and that was it.

When I interviewed him in 2019, three years after starting his company, Ryan had only recently started to consider raising VC investment: "Our business needs rocket fuel ... We have got enough to keep us going, enough to improve, enough to make big changes, but not the rocket fuel amounts that we need." He had met with a VC fund that was actively seeking investment opportunities outside of London, and had received some initial feedback on the product and business model which he was in the process of implementing. Ryan's experience of the investor scene in Bristol itself was fairly negative: he opined that, "the investor scene [in Bristol] is way too obscure ... too white, too middle class, too male."

At the time that I interviewed her in 2019, Natalie's company GuideWay was well past the startup stage. She and her co-founders had bootstrapped their company: she had left her well-paid job as a consultant to explore the opportunity for a set amount of time to see if it was worth pursuing. GuideWay received some initial seed funding quite early on from an American investment firm, which was made possible in part because half of her founding team was based in the United States. The decision to raise investment was made predominantly because it granted Natalie access to a community of mentors. Contrary to the funding decisions she had made for GuideWay, Natalie's advice for up-and-coming founders was to "preserve your cashflow [and] avoid external investment [for as long as possible]." The driving motivation behind this advice was related to how time-consuming it can be to raise investment: "It is so difficult, it's so tricky, it takes so long too [and] it can take you away from the focus of your business."

Whilst they took different paths in funding their companies, the experiences of Stephen and Ryan reflected the broader picture in the Bristol entrepreneurial ecosystem. At the time that the fieldwork was conducted, a report about the challenges and opportunities for scaleups in Bristol had found that access to investment was one of the main barriers these companies faced: "At the early stages, with only one regionally located angel network, securing angel investment relies heavily on personal relationships and network building ... many founders describe the local investment landscape is opaque and inactive" (Scaleup Generator, 2018, p. 8). Ryan made the deliberate choice to bootstrap his company and not rely on external investment, but Stephen's company required an initial injection of investment which he was only able to secure from a national grant-giving organisation and by participating in an accelerator outside of the region. All three founders who spoke about raising investment as a startup said that the process was inordinately time-consuming; Stephen described it as "multiple full-time jobs."

Accessing investment as a scaleup

Three of the scaleup founders spoke about their experience of raising investment once their companies had moved beyond the startup phase. Craig's experience of raising investment was highly unusual compared to most startups: he had a significant investor right from the start of his business. This was an individual who had invested in a previous company that Craig was involved in. The investor trusted Craig and was interested in investing in novel tech companies, so he gave Craig the bandwidth and financial support to explore the opportunity for three months, before Craig decided whether to fully commit to it as a business. Craig reflected that this unusual situation came about partly because of the modus operandi of the individual

investor, partly because of the trusted relationship with Craig, and partly because of the ambitious strategy for his company's growth:

We were going for the win from the get-go ... it's basically like a Formula One strategy, so we get a blank garage, let's get the best car and the best team and just absolutely dominate. It's just flat down the whole way. It's a very different approach ... it's not the typical startup where you have an idea and a pot of savings or something. [We] started with a chunk of investment ... This was always going to be stratospheric or let's just not bother.

Similarly to Craig, Stuart had raised investment for previous companies that he was involved in. This had given him both the networks with investors and the insight into how the process worked. The first major funding round that his company raised was in the tens of millions British pounds sterling, closely followed by another round of a similar amount. Both of these funding rounds were led by London-based VC firms. The investment raised went into the development of the technology and into hiring exceptional talent to drive the company forward. Stuart described the investment as critical not only for his business but more widely for the Bristol entrepreneurial ecosystem. Stuart's view was that significant investment deals such as the ones that his company had attracted brought a "buzz and excitement around the company [which] attracts investors [and] great talent, it allows you to build and fulfil upon the potential."

Graham's path to raising investment as a scaleup started in a similar way to Natalie, Ryan, and Stephen – it was his own initial savings that went into the company, essentially paying for him to work on the business full-time, without taking a salary. Graham turned to crowdfunding as a way to raise an initial £150,000. Graham recognised that as a startup that was pre-revenue and

with no customers, VC funding was unobtainable, and he said that angel funding in Bristol was limited at the time that he was seeking that initial investment. His participation in Accelerator S introduced him to his lead investor, and this led on to a couple of small angel rounds. One of these angel rounds introduced Graham to a high-net-worth individual (HNWI) who in turn introduced Graham to some other HNWIs. The result of this was that Graham was able to raise a syndicated round via a local angel network. Once this first angel investment round was completed, Graham's company Black Rose started to scale rapidly, and the next step was to approach VC funders. In total Graham was able to raise over £5 million through VC funders. Similarly to Stuart, these VC funders were based outside of Bristol. This echoes Vedula and Kim's (2019) findings that serial entrepreneurs are able to overcome constraints or limitations in their local entrepreneurial ecosystem by accessing resources from outside their local or regional area by exploiting their pre-existing networks.

7.2.iv Accessing space

Companies need affordable space from which to grow and scale. However, the six institution-led frameworks for entrepreneurial ecosystems are short on such practical details. Access to affordable space in an entrepreneurial ecosystem that centres around a core city is not always easy to obtain due to the high cost of real estate in urban centres. In 2019, the average office space rental in Bristol increased by 7%, and the supply of Grade A office space in the city was assessed to be "extremely limited" by Savills Estate Agent, one of the UK's leading property agents.⁸¹ For this reason, it is unsurprising that access to free or low-cost coworking or office

⁸¹ Source: https://www.commercialnewsmedia.com/archives/97994. Accessed 23 November 2022.

space was often mentioned by interviewees as one of the main attractions of accelerator programmes or incubators. This sub-section describes the experiences of entrepreneurs accessing office space in the Bristol entrepreneurial ecosystem. Table 14 below provides a snapshot of the type of office space that entrepreneurs were using in 2019.

TABLE 14: ENTREPRENEURS' EXPERIENCES OF ACCESSING SPACE

Company	Name	Type of business	Stage of	Stage of	Type of space
			business	entrepreneur	
GuideWay	Natalie	Product-led	Scaleup	Later-stage	Commercial office
					space
Midri	David	Agency/Consultancy	Scaleup	Later-stage	Commercial office
					space
Pangloss	Craig	Product-led	Scaleup	Later-stage	Commercial office
					space
ChipAl	Stuart	Product-led	Scaleup	Later-stage	Commercial office
					space
Black Rose	Graham	Service-led	Scaleup	Early-stage	Commercial office
					space
WePlant	Stephen	Product-led	Startup	Early-stage	Commercial office
					space
MultiJobPro	Ryan	Service-led	Startup	Early-stage	Commercial office
					space
Knowledge	Taylen	Agency/Consultancy	Startup	Early-stage	Meanwhile use
Ways					
Precisely Social	Jennifer	Agency/Consultancy	Startup	Early-stage	Commercial
					coworking
FR3	Melanie	Agency/Consultancy	Startup	Early-stage	Commercial
					coworking

Source: Table devised by the author

As Table 14 shows, all of the entrepreneurs interviewed were paying for commercial office space (with the exception of Taylen, Jennifer, and Melanie who ran agency/consultancy businesses⁸²). This reflected the fact that they had all moved beyond being sole founders and

⁸² Taylen and Jennifer ran agency/consultancy style businesses that were led solely by them as individuals. Any extra human resource that they needed was brought in on a project-by-project basis by contracting freelancers. Taylen had secured empty offices in his local neighbourhood which was designated as meanwhile use (see footnote 83), thus allowing him to be based there on a short-term contract. Part of his mission through his agency/consultancy was to use the connected shopfront as a space that was open to the community, thus bringing vibrancy into a fairly impoverished area of Bristol. The meanwhile use space that he occupied was integral to the mission of his agency/consultancy; therefore, he had no need to access the commercial coworking space offer in the city. Jennifer had been able to access coworking space for six months when she was part of Accelerator W; this

had teams of employees to accommodate, whether that team was a handful of people in the case of Stephen and Ryan, or up to 300 people in the case of Stuart. However, as will become clear in the following pages, not only were there significant differences between the types of office space and rental terms covered by the term 'commercial office space' as used in Table 14, entrepreneurs had usually started out in spaces which were more akin to coworking spaces or meanwhile use space.⁸³

Accessing space as a startup

Natalie started out working from home, but she realised that, "as soon as we became five, we couldn't do this anymore, we needed to get a base." It was at this point that she approached Bristol-based Accelerator S, where she and her colleagues were able to access free coworking space alongside the rest of the accelerator's cohort for a fixed period of time. Graham and Ryan also took part in Accelerator S in the early days of their businesses. In 2019, at the time that the fieldwork took place, there had been a recent proliferation of coworking spaces that had opened in Bristol. These ranged from community-managed meanwhile use space through to national coworking providers which were already operating in several other UK cities. Upon

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was part of the package of support that she received. Jennifer also made use of a range of different coworking spaces, including a free Friday morning coworking offer for female entrepreneurs that was held regularly at one of the coworking spaces. Melanie had a small team of employees, but similarly relied on freelancers. Melanie found that commercial coworking suited her small team well, as they were able to work flexibly and remotely depending on their projects.

⁸³ Definition of meanwhile use: "Meanwhile use is a loose designation for activities that occupy empty space, while waiting for another activity on site ... Meanwhile uses are usually defined by their short time frame, which makes them relatively affordable. Most landowners charge low or no rents for meanwhile spaces, because these spaces are second hand and time sensitive." Centre for London. (2018). *Meanwhile, in London: making use of London's empty spaces.*

leaving Accelerator S, these three startup founders all took different paths with regards to office space. Each will be considered in turn.

Following on from Accelerator S, Natalie moved her team into commercial office space which had flexible terms, meaning her team could expand to fill the different sized spaces within the building:

We were upstairs to start, a really small room up there, and then we were able to move down here when we grew. And now we're moving out, which is a shame you know [because] spaces like these are so helpful ... for young companies.

The business model of this particular building was to provide serviced office space that was charged on a square metre basis, rather than a charge-by-the-desk model popular with some of the larger coworking spaces. The advantage of this business model for small businesses is that the space can be geared towards what the business needs, as explained by Natalie: "It's a nice flexible space, so you take the office, and you can choose how many desks you put in it, if you want to put two desks in, fine, that's up to you." If a business is struggling, they can downsize their office space to pay less per square metre, and conversely, if they are hiring more people, they can move to a larger office within the same building or fit more desks into the space that they are already paying for. At the time of the interview, Natalie was in the process of signing the lease on a larger office space in the centre of Bristol. This process was beset with delays and difficulties, which she confessed was sapping her time and energy:

The property market is so far behind what our companies need, and the fact that the landlords can offer an office in the 21st century, that does not have a network connection? If you need to put a network connection in, you need to get a contract in place for the telecoms company to be able to put a cable. Literally we're running a four-

metre cable through the ceiling void, and this contract has gone back and forth and back and forth between the lawyers, about access to the property ... unbelievable. It's going to cost us £1000s and £1000s of pounds of legal fees, just to get this connection to the office.

Graham moved from the coworking provided by Accelerator S to a commercial coworking space which had a charge-by-the-desk model. As his business expanded, he became one of the coworking space's anchor tenants, taking on a large office separate to the coworking desks, where at the time of interviewing him, he employed 31 people. The business model for commercial coworking spaces is usually along these lines whereby there will be a few anchor tenants on longer leases in larger spaces, with the revenues from this covering some of the costs of the less-consistently-used (and often less profitable) coworking space.

The attraction for an anchor tenant of being based in the same building as a coworking space can often be the sense of community and vibrancy that comes with having a fluid population of entrepreneurs coming through the doors. My interview with Graham took place in the coworking space where his business was an anchor tenant, and there were frequent occasions when Graham would say hello to the coworking residents, many of whom he evidently knew well from time spent in the shared space.

Stephen expressed frustration at the type and availability of office space in Bristol. When he and his co-founders started out, they used free space at the University of Bristol which they were able to access as graduates. From there, they moved into a building on the outskirts of Bristol which was designated for meanwhile use. Stephen was thinking ahead to the expansion of his team and the requirements he had:

The difficulty [has been] finding the kind of space we need in Bristol, because we're a company that needs ... both nice office space and light industrial space. Firstly, you're quite constrained in what spaces are available because not every warehouse has a nice office space. Secondarily, that [kind of] space is objectively not being prioritised in Bristol; it's being actively removed.

Stephen's challenge was that while his business required a light industrial unit for Research and Development (R&D) purposes, he also wanted to be close to the city centre to "share in all the benefits that the Bristol lifestyle brings with regards to recruitment."

Prior to having access to coworking space as part of the package from Accelerator S, Ryan worked from home. Following on from Accelerator S, he moved to a charge-by-the-desk studio workspace, available as meanwhile use space to bring activity to a neglected street in a city centre neighbourhood. This workspace was home to predominantly arts and design makers and small businesses. Ryan described the set-up as follows: "[they offer] short-term leases on near derelict buildings, and make them as serviceable as they can, and have very very cheap rent ... we were in a horrible space with no windows ... Four degrees [Celsius] was our all-time low temperature." As Ryan's company grew and professionalised, they moved into serviced office space in the city centre, in a historic building which had been repurposed to provide modern offices.

Accessing space as a scaleup

David initially based his company on the northern fringe of Bristol, at a Science Park which provided serviced offices. This suited his company because of the flexibility to increase or decrease the office size depending on the size of the team: "from 3 men [sic] to 5 men to 8,

from 8 to 16, from 16 to 8 and so on." David was based there with his team for six years and moved office within the building almost every year. For David, the advantages of being based there included the short-term leases, the centralised provision of services such as cleaning and maintenance, the ability to hire meeting rooms, and the image that he was able to project to clients:

[Clients would] come and see us, and suddenly you can present the whole building almost as yours, which it's not, they understand it's a serviced office, but you feel at home [with a] nice reception area.

The push for David to move his company into its own offices in the city centre, and away from the serviced offices on the outskirts of the city, came from his desire to be part of an entrepreneurial community that he perceived existed in Bristol, and also to raise the profile of his business to attract more clients: "People didn't know about us ... Our idea was, let's find a home, let's find a proper home that's ours, it's our city, we're part of that community."

Craig started his company as a sole founder who was new to the city. He took a desk at Coworking D after viewing a number of "uninspiring" commercial serviced offices in the city:

When I walked in, [Coworking D] was mind-blowing ... having seen all these other stale white boxes, to see this very colourful [space] it felt right, [and] right away you feel like there's a vibe, you're part of something when [actually] you're just one man.

Within a couple of months, Craig made his first hires, and his small team of six employees took a space within Coworking D to get the business going. This worked for a short time, "but of course then we outgrew it, and they were too full, they had no other space for us, everybody was crying for space in Bristol at the time." Craig moved into a larger office that was available in

one of the "uninspiring" commercial serviced offices. He had a team of 20, and they made the space their own:

[It was] very formal, very professional, but we were in this back room with this old 17th century stone façade in it which was a huge double volume ceiling, and these huge windows. It was just the most beautiful space on the back of what was full of lawyers and engineering, like civil engineer types. We were this weird funky startup in the back of it, and we then spray-painted the one wall [with a] massive mural. It didn't cost much but this feels funky now that we can do it, and we put lots of plants in there. So, we made [it] our own. I mean it blew their minds, they'd never had a tenant do this, but a bit of paint wasn't much.

Craig had since moved his business to a larger office in central Bristol to accommodate a rapidly expanding team of employees. He too had experienced similar difficulties to Natalie in ensuring that the building would be fit for purpose: "There's just friction moving into the office ... getting the fibre installation ... getting the aircon installed, just friction friction friction."

Out of all the entrepreneurs interviewed, Stuart was the one with the largest team and the largest office space. He employed nearly 300 people in total, and 200 of them were based in a city centre building where his company had taken four floors. Growth at that scale was envisaged by Stuart right from the start; he had based himself and the initial small team in that same building from the beginning, taking up the third of one floor, and had expanded over time to occupy four floors. When asked in 2019 what the future held, Stuart envisaged further growth but acknowledged that this came with challenges that were specific to the Bristol entrepreneurial ecosystem:

Where do you find an office with 250,000 square feet where we could house 2000+ people? We like the idea of being in the centre of town rather than on the outskirts, so there are limited options from that point of view.

Stuart's frustrations with the limit of suitable office space for his scaleup company echo
Stephen's difficulty in finding a suitable light industrial unit that was close to the city centre for
his startup, implying that this is a pain point experienced by entrepreneurs at all stages.

Accessing suitable space from which to work in the Bristol entrepreneurial ecosystem was a primary concern for all of the interviewed entrepreneurs, no matter what the stage of the business or the founder. The pattern was typically for entrepreneurs to start out working at home, and then move to a coworking space (either as part of an incubator or accelerator, or commercial coworking provision). The free provision of coworking space as part of an accelerator programme or incubator was particularly welcomed and was often one of the driving motivations for entrepreneurs to apply to take part in a particular programme.

Depending on the size of the team and the facilities required by the business, entrepreneurs might then take on space within a serviced office such as a Science Park or seek an office within a commercial coworking space. Once a company was scaling or had scaled, dedicated office space was required, meaning that the business would enter into leases with commercial property companies. The pinch points along this journey were felt keenly at the scaleup stage in particular. Moving from a serviced office into a leased building appeared to be a process that was often beset with logistical challenges in the Bristol entrepreneurial ecosystem.

7.2.v Insights into how entrepreneurs experience the entrepreneurial ecosystem

The opening section of this chapter has provided a detailed biographical exposition of earlystage and later-stage entrepreneurs to highlight their different experiences of four aspects of the Bristol entrepreneurial ecosystem: participating in accelerator programmes; attending gettogethers; accessing investment; and accessing space. This section sought to find the commonalities between entrepreneurs' experiences, whilst also recognising and acknowledging that each individual's journey is unique to them. The commonalities in the experiences of the entrepreneurs appear to be contingent on the stage of their business and their own professional experience and entrepreneurial history. Early-stage entrepreneurs were more likely to be able to access the resources that they needed from within the geographic boundaries of the entrepreneurial ecosystem. As such, they turned to institutional elements such as accelerators and get-togethers to learn new skills and expand their networks. Laterstage entrepreneurs were usually further along in their career path than early-stage entrepreneurs, and so already had a substantial amount of experience and well-established networks to call on. The experiences of later-stage entrepreneurs shows that they were more likely to access the resources and support they needed from outside the entrepreneurial ecosystem. The exception here is space, which is intrinsically linked to the geography of the entrepreneurial ecosystem, and talent which can be sourced from anywhere, both locally and further afield. Before moving on to the second section of this chapter, it is important to show how this empirical evidence relates to the literature.

First, entrepreneurs' participation in accelerator programmes. The primary aim of an accelerator is to help startups to strengthen their business models, and in doing so, increase

their sales and potentially attract investment (Madaleno *et al.*, 2021). The vast majority of accelerator programmes are aimed at early-stage startups (Cohen and Hochberg, 2014), and research into UK accelerators shows that 82% of companies that took part in an accelerator programme were 'seed stage startups' (Beauhurst, 2020). It has been shown that accelerator programmes generally do have a positive impact on early-stage ventures (Hallen, Cohen and Bingham, Christopher, 2019). Considering the broader context, Madaleno *et al.* (2021) show that accelerators also have a positive impact on urban economic development, in particular in increasing employment and in facilitating access to finance for participating firms. The empirical fieldwork explored entrepreneurs' motivations for taking part in an accelerator, and shows that, contrary to what we might expect (Cohen and Hochberg, 2014), later-stage entrepreneurs can also benefit from acceleration programmes. The fieldwork also demonstrated that there are often good reasons for not taking part in an accelerator, despite the many benefits of doing so, for instance, if an entrepreneur is already experienced or does not see a need to expand their networks.

Second, entrepreneurs' participation in get-togethers. Meetups and events provide entrepreneurs with the opportunity to 'connect and engage' with their peers (Stam and Spigel, 2017), expand their networks (Spigel, 2018), and develop their own entrepreneurial skills (Harrington, 2017). However, meetups and events are not explicitly listed as elements within the institution-led frameworks. This is an oversight as the evidence shows that meetups and events were highly valued elements of the Bristol entrepreneurial ecosystem. That being said, it was clear that early-stage entrepreneurs and later-stage entrepreneurs extracted different value from attending get-togethers. Zheng, Ahsan and DeNoble (2020) find that new venture

leaders without entrepreneurial or technical experience are more likely to engage in networking activities to build strong ties. This was certainly the case in Bristol. However, once early-stage entrepreneurs felt that they had gathered the knowledge, experience, mentors, and peers that they needed in the startup phase of their entrepreneurial journey, they were less likely to continue attending events and meetups. The empirical evidence shows that later-stage entrepreneurs did not extract the same value from get-togethers as early-stage entrepreneurs did, and were therefore less likely to engage with the events and meetups in the Bristol entrepreneurial ecosystem to the same extent. Rather, events and meetups were seen by later-stage entrepreneurs to be a critical way to raise the profile of their companies and attract new talent. Their need to network remained, but the emphasis switched to become more strategic in pursuit of certain objectives.

Third, entrepreneurs' experiences of raising investment. Access to finance is a key institutional element in the entrepreneurial ecosystem. Comparing the investment-raising experiences of startups and scaleups in the Bristol entrepreneurial ecosystem, it is evident that the funding for the early stages came via accelerators and grants, whereas the later funding rounds came from angels and institutional funders such as VC firms. Ideally, an entrepreneurial ecosystem would be able to respond to the financing needs of all entrepreneurs through resources within the entrepreneurial ecosystem itself, at any stage of a business. But in Bristol, both startups and scaleups had to look outside their local and regional entrepreneurial ecosystem to find the financial support that was required. This points to a possible weakness in the Bristol entrepreneurial ecosystem which could, if left unchecked, impact negatively on the survival rate of new ventures (Vedula and Kim, 2019). What appears to make the most difference is the

experience level of the entrepreneur: a serial entrepreneur who is launching a second or third venture has a broader base of resources, skills, networks, and knowledge to draw upon, even before their startup becomes a scaleup (Vedula and Kim, 2019). By contrast, an early-stage entrepreneur has to gather these resources, such as connections to investors, by actively engaging with the entrepreneurial ecosystem. The investment needs of a startup compared to a scaleup are different, hence the need for a wide variety of investment vehicles within an entrepreneurial ecosystem. This nuance is not made explicit in the institution-led frameworks, which list 'finance' as a generalised need for all entrepreneurs in the entrepreneurial ecosystem.

Fourth, access to office space. Given that office space is such a fundamental necessity for entrepreneurs, it is remiss that it is not clearly and consistently delineated in the entrepreneurial ecosystems literature. Unlike all the other institutional elements of an entrepreneurial ecosystem, space is one which cannot be accessed by looking outside of the geography of the local entrepreneurial ecosystem: office space is intrinsically tied to physical place. Stam and Spigel (2017) include physical infrastructure in the framework conditions for an entrepreneurial ecosystem, but do not detail what this refers to: office space (including coworking space) is not mentioned. For Neck *et al.* (2004), physical infrastructure includes transport infrastructure and housing, alongside office space, but no further detail is provided. Isenberg (2011) includes 'centres' under 'infrastructure' in the 'supports' domain of his entrepreneurial ecosystem framework. However, he is fairly damning of the potential impact of providing space or infrastructure for entrepreneurs, assessing that an intervention to provide this has little to no positive benefits. He asserts that entrepreneurs will naturally come

together, and this can then be followed by private sector investment into the infrastructure, rather than the public sector leading in this area by building "white elephants" (Isenberg, 2011). Mason and Brown (2017) include 'coworking space' under their list of 'entrepreneurial actors' but do not provide any further elaboration. Finally, the WEF report (2013) includes no reference at all to office space beyond highlighting that entrepreneurs need access to basic infrastructure such as water and electricity.

The empirical evidence from the Bristol entrepreneurial ecosystem shows that office space was a key priority for all entrepreneurs at every stage of their business growth. It is therefore surprising that the institution-led frameworks overlook this key element. Coworking space in particular has been shown to facilitate collaboration and mutual support (Spinuzzi, 2012), and can enable knowledge exchange about entrepreneurship practices (Autio *et al.*, 2018).

7.3 How entrepreneurs conceptualise the entrepreneurial ecosystem

The opening section of this chapter was dedicated to providing an exposition of how different entrepreneurs experience the Bristol entrepreneurial ecosystem. Similarities were highlighted, sometimes based on the stage of business journey, sometimes based on the prior experience of the entrepreneur. This section will now turn to how entrepreneurs conceptualise the Bristol entrepreneurial ecosystem.

In Chapter 6 (Table 10, page 266), it was argued that while entrepreneurs had an awareness of the institutional elements, they did not readily use the phrase 'entrepreneurial ecosystem' to

refer to that conjunct of elements when they were asked about their experience of building a business in Bristol. Rather, their responses revolved around certain core institutions that they interacted with.⁸⁴

The contention presented in this section is that how entrepreneurs conceptualise the entrepreneurial ecosystem is dependent on whether they are at an early stage or a later stage of their entrepreneurial journey. The conceptual model introduced in Chapter 3 will be employed in the following sub-section to show how these conceptualisations differ between early-stage and later-stage entrepreneurs.

How early-stage entrepreneurs conceptualise the entrepreneurial ecosystem

Early-stage entrepreneurs (and indeed, later-stage entrepreneurs reflecting on their experiences of starting out) were more likely to access resources from within their local entrepreneurial ecosystem, i.e., by accessing institutions within the middle layer of the conceptual model. Their resulting conceptualisation of the entrepreneurial ecosystem therefore reflects these experiences, as shown in Figure 25 on the following page.

⁻

⁸⁴ Despite the entrepreneurs not volunteering the phrase 'entrepreneurial ecosystems' immediately or directly, the phrase will be used here to refer to the sum of the parts described by the entrepreneurs (accelerators, gettogethers, investment, and space).

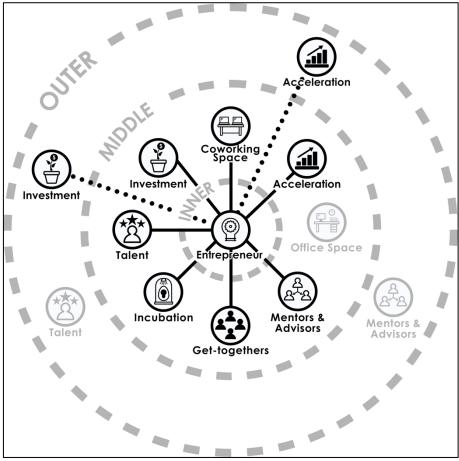


Figure 25: How an early-stage entrepreneur conceptualises the entrepreneurial ecosystem. Source: author's own diagram.

In this diagram, the early-stage entrepreneur is at the centre of the entrepreneurial ecosystem. There are solid and dotted lines linking the entrepreneur to the various institutional elements of the entrepreneurial ecosystem that they interact with. An early-stage entrepreneur is very likely to access some form of locally available incubation and acceleration to upgrade their knowledge and skills in entrepreneurship. They are likely to attend local get-togethers (meetups and events) to meet fellow entrepreneurs. The talent that they might want to bring on board in the early days is more likely to come from their existing network, or from people who they meet at get-togethers, or by taking advantage of local internship schemes such as the one run by the University of Bristol. Early-stage entrepreneurs are also likely to seek a local coworking space to work from, as this is more affordable than renting an office and brings with

it a community of like-minded peers. The path to investment for early-stage entrepreneurs also starts out locally, through introductions to local angel investors. And finally, the mentors and advisors that early-stage entrepreneurs turn to are usually local connections made through incubators or acceleration programmes. All of these elements of the entrepreneurial ecosystem are based within the middle layer of the entrepreneurial ecosystem and are rooted in the local geography.

The two dotted lines in Figure 25 which reach into the outer layer of the entrepreneurial ecosystem show the instances where early-stage entrepreneurs had to look for resources and support outside of their local environs. The experience of Stephen for instance, was that despite being able to access many resources from within the geographic boundaries of the Bristol entrepreneurial ecosystem, he also chose to take part in an accelerator based in London which was specific to his industry sector. For Stephen, his conceptualisation of the entrepreneurial ecosystem therefore extends outside of his geographic location. While there were accelerators within the Bristol entrepreneurial ecosystem that he could have accessed, he looked outside his immediate geography to find one that was tailored specifically to his business. The dotted line reaching to 'investment' in the outer layer of the entrepreneurial ecosystem represents early-stage entrepreneurs who looked to national bodies for seed investment, for example, Innovate UK grants or crowdfunding based on a national platform.

How later-stage entrepreneurs conceptualise the entrepreneurial ecosystem

Later-stage entrepreneurs were less inclined to access resources from within their local
entrepreneurial ecosystem (the middle layer) and more likely to access the support and

resources they needed from outside (the outer layer). Figure 26 below shows how later-stage entrepreneurs conceptualise their entrepreneurial ecosystem, based on their experiences:

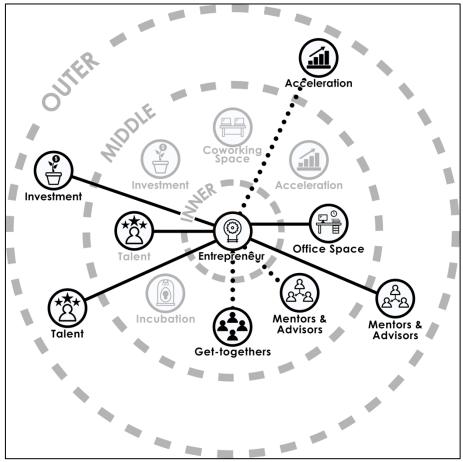


Figure 26: How a later-stage entrepreneur conceptualises the entrepreneurial ecosystem.

Source: author's own diagram.

Once again, the entrepreneur is shown to be at the centre of the entrepreneurial ecosystem, with solid and dotted lines connecting the entrepreneur to the resources accessed. This time however, the lines predominantly connect the later-stage entrepreneur to institutional elements which are located in the outer layer of the entrepreneurial ecosystem, i.e., outside the geographic boundaries of the Bristol entrepreneurial ecosystem. A later-stage entrepreneur is less likely to lean on the resources from within the local entrepreneurial ecosystem (i.e., from the middle layer) and more likely to look outside the local geographic area to seek the support

that they need (from the outer layer). The dotted line to acceleration in the outer layer represents the fact that later-stage entrepreneurs are less likely than early-stage entrepreneurs to go on an accelerator programme, unless it is deliberately aimed at scaleup founders, in which case the programme is likely to be based outside of the geographic boundaries of the Bristol entrepreneurial ecosystem (for example, the leadership accelerator programme attended by later-stage entrepreneur David, based in a location 100+ miles away from Bristol). Later-stage entrepreneurs do not regularly attend local get-togethers, but they do occasionally host them or sponsor them, as a way to 'give back' to the local community and as a way to source talent (indicated by a dotted line).

The empirical evidence also points to the fact that later-stage entrepreneurs are more likely to rely on pre-existing mentors and advisors, many of whom are based outside of the local entrepreneurial ecosystem (indicated with a solid line). That is not to discount locally based mentors and advisors (indicated with a dotted line), rather, that later-stage entrepreneurs are more likely to lean on well-established networks that are truly global in reach. Finally, a later-stage entrepreneur who is looking to raise investment is usually obliged to look outside the geography of their local entrepreneurial ecosystem. This is especially true in UK regional entrepreneurial ecosystems, as most of the later-stage investment rounds are sourced from VC and private equity firms that are based in London. There are two solid lines connecting a later-stage entrepreneur to the local and regional entrepreneurial ecosystem (middle layer): one connecting to talent, which can be sourced anywhere, and the second to office space, which is rooted in a physical location.

Insights into how entrepreneurs conceptualise the entrepreneurial ecosystem

What we can take from Figure 25 and Figure 26 is that while each entrepreneur's experience is individual to them, there are some generalisations that can be made: early-stage entrepreneurs have similar experiences to one another, as do later-stage entrepreneurs, and the needs of startups are similar, as are the needs of scaleups. The conceptual model proposed in this thesis is contingent in that the experiences of each individual entrepreneur will dictate their own individual conceptualisation of the entrepreneurial ecosystem. As a result, these generalised conceptualisations of the entrepreneurial ecosystem will warp and shift depending on the experiences of each individual entrepreneur.

The empirical evidence demonstrates that more specificity is required when 'entrepreneurs' are referred to in the entrepreneurial ecosystems literature. The experiences and conceptualisations of early-stage and later-stage entrepreneurs as described here show that an entrepreneurial ecosystem as a regionally geographic concept appears to respond best to the needs of early-stage entrepreneurs. It seems that later stage entrepreneurs must look outside of their geography in order to successfully build their businesses. So, while an entrepreneurial ecosystem is geographically bounded, these later-stage entrepreneurs stretch the geography of it to include institutions that lie outside of those local and regional boundaries. What we can infer from this is that the entrepreneurial ecosystem for later-stage entrepreneurs is more relational than geographic, given that they are less likely to engage locally and far more likely to build their own entrepreneurial ecosystem by piecing together elements that they need from elsewhere. This relates to Chapter 5 in that it emphasises the importance of building relationships to overcome physical distance.

7.4 How entrepreneurs shape the Bristol entrepreneurial ecosystem

This chapter opened by describing how different entrepreneurs experience different elements of the entrepreneurial ecosystem depending on their experience and the stage of their business. Building on this, the second section of this chapter argued that how entrepreneurs conceptualise the entrepreneurial ecosystem is informed by their experiences, and thus early-stage entrepreneurs have a different perspective on the entrepreneurial ecosystem compared to later-stage entrepreneurs. The conceptual model introduced in Chapter 3 was used to depict this. The final section of the chapter builds on how entrepreneurs experience and perceive the entrepreneurial ecosystem to show that they also have the potential to actively shape it. This cycled is depicted in Figure 27 below.

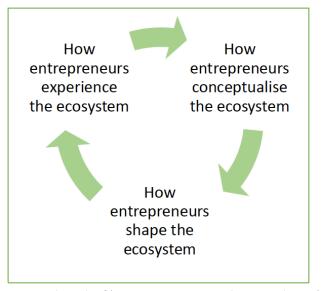


Figure 27: The cycle of 'Experience – Conceptualisation – Shaping'.

Source: author's own diagram.

Figure 27 shows that entrepreneurs' experience of the entrepreneurial ecosystem informs how entrepreneurs conceptualise it, which in turn influences how entrepreneurs shape the ecosystem, which then feeds back into how entrepreneurs experience the ecosystem. This section of the chapter focusses on how entrepreneurs shape the Bristol entrepreneurial

ecosystem. Entrepreneurs do this by creating and contributing to a culture of 'giving back'. This in turn then feeds into how future generations of entrepreneurs experience the Bristol entrepreneurial ecosystem, thus completing the cycle above. The following pages show how a culture of 'giving back' is facilitated in the Bristol entrepreneurial ecosystem.

Facilitating a culture of 'giving back' within an entrepreneurial ecosystem

We know from the literature that the culture of an entrepreneurial ecosystem is one of the formative elements that contributes to the entrepreneurship process (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Brown and Mason, 2017; Stam and Spigel, 2017). An 'entrepreneurial culture' includes histories of entrepreneurship (Stam and Spigel, 2017) and risk-taking (Isenberg, 2011). Malecki (2018) identifies that entrepreneurial ecosystems have a 'civic culture', including people who willingly share their experience at events and through mentoring. Building on this idea of a civic culture, a recurring theme in the interviews conducted was that the Bristol entrepreneurial ecosystem benefits from a culture of people 'giving back' (or 'paying it forward' as it was also sometimes referred to). What this means is that people would offer advice or help to other entrepreneurs without expecting anything in return. This section describes how this 'giving back' mentality was manifested in the Bristol entrepreneurial ecosystem and explores some of the motivations for entrepreneurs to act in that way.

'Giving back' was seen to be particular to both the tech sector and to Bristol as a place, as explained by early-stage entrepreneur Graham in the following quote, who contrasted his prior experience working in the corporate sector to his experience as a scaleup founder:

[It is] different working in a tech growth scene to working [in the corporate sector] which was aggressive, competitive, dog-eat-dog ... you didn't help people ... in the tech community, people help each other! There's nothing in it for them, and they offer advice, they take time to introduce you to people ... I think the level of collaboration and ... 'feeding forward' feels quite high in Bristol. There's a lot of people who want to help, and I don't know why that is, whether it's because it is so close, but ... there's tremendous support.

Later-stage entrepreneur David also noticed that this 'giving back' attitude was embedded in Bristol: "In the [tech] community people do want to help. If you sell, people don't buy. But if you ask for help, people will help." This trend was observed too by Shaun, Managing Director of Entrepreneur Network 1, who said,

[Companies here] will always [give back] ... not necessarily with capital because lots of them are still in the startup phase, but without fail, they would always have a coffee with someone, give some advice, have a chat, in a way that's really friendly and helpful.

Mark, a national investor, had experience of entrepreneurial ecosystems in other countries and noted that the 'giving back' phenomenon, whilst evident in Bristol, was not as strong as elsewhere. He referred to 'giving back' as both a cultural issue and a mentality trait that was essential for entrepreneurial ecosystems to thrive: "Even if you're a newcomer, you don't need to work hard because the ecosystem accepts you and is willing to pay it forward, without getting ... anything in return."

Sometimes, the culture of 'giving back' was facilitated by entrepreneurial institutional elements, such as accelerator programmes which embedded mentorship into their programmes. For instance, Accelerator S had a pool of advisors who could provide support and deliver workshops. These advisors were experienced entrepreneurs or employees of

professional services firms who gave their time to Accelerator S pro bono. They were able to give their time 'for free' either because they were already independently wealthy (in the case of the experienced entrepreneurs), or because their time was paid for by the accountancy firm, law firm, or bank that employed them. For the experienced entrepreneurs, Accelerator S provided them with an easy way to 'give back' to up-and-coming entrepreneurs: all the logistics of who to advise and how to arrange the meeting was dealt with by the accelerator programme.

Get-togethers also provided a way for experienced entrepreneurs to 'give back'. This was discussed in section 7.2 earlier in this chapter, in terms of the later-stage entrepreneurs who hosted or sponsored get-togethers because this was a good way of recruiting talent and keeping employees engaged. Their motivations for doing so were driven not only by these reasons however, they were also motivated to give back to help others. As Natalie said: "We're asked to come along to roundtables ... we try and give back as much as we can to this community, definitely. And just be around, you know."

'Giving back' as individual entrepreneurs

Often, entrepreneurs were motivated to 'give back' because of their own experience of having received valuable advice and help from others. Graham described his motivations as follows:

On the helping other entrepreneurs, I make the time. It's really important. If someone I know asks me for some advice or help ... Because people have helped me in that way. And also, you never know when it might come back to you, but you make time. It's really important.

Jennifer too, reflected on how she 'gave back' by supporting interns through her business, even though the costs of doing so were not sustainable. In contrast to Graham, her motivation for helping others came because she had found that she had *not* received much support on her entrepreneurial journey, and she wanted to change that for others:

I have been going two and a half years and I've had three interns and ... had to upskill two of them and had one of them get a job. I'm not sustainable to do that in terms of a business ... but I feel that responsibility. I feel that responsibility because I had so much struggle going through the doors that I'm [now] trying to drag people with me.

Amongst the non-entrepreneur stakeholders I interviewed, there was generally an agreement that the entrepreneurial ecosystem benefitted when entrepreneurs played an active role. Isobel pin-pointed the advice of scaleup entrepreneurs as being particularly valuable for the entrepreneurial ecosystem, but acknowledged that the challenges of scaling a company made it difficult for experienced entrepreneurs to make the time to 'give back':

I think when companies are scaling up, it's ... one of the times when they can give the most value back, but it's also one of the most challenging times for them ... suddenly you're learning a whole range of different skills and there are a lot of different pies to grow at the same time.

Julie, Director of Accelerator S, gave some concrete examples of entrepreneurs who "really believe in actually investing back into the ecosystem", but Louise, who held a convening role at Incubator Z, argued that many more successful founders were needed to 'give back' in order to make a tangible difference in the Bristol entrepreneurial ecosystem:

There's a really big gap when it comes to reinvestment, or at least awareness of reinvestment. By reinvestment I mean the people who have their exit and they've made a shitload of money, how visible are they for other founders in terms of being an

inspiring role model and in terms of being a mentor, or in terms of being an investor. I don't really mind what flavour their activity is taking, and I understand that they want to take 12 or 18 or 24 months out once they've done that, but are we seeing it come back round?

For the later-stage entrepreneurs in particular, the demands on their time were significant, and they were not always able to contribute actively to the entrepreneurial ecosystem. When I asked later-stage entrepreneur Craig whether he was able to mentor or support early-stage entrepreneurs, his reply was: "Not yet. I'm just buried in work. And I realise that there probably will be a stage at which things will calm down ... So, we'll see in a year, that might start to be possible." His reply indicates that the desire to help and give back is there, but that his business takes priority. It was a similar response from another later-stage entrepreneur, Stuart, who said he was "too busy" to engage in the community. He pointed to his experience in Cambridge where there was a "bigger pool of people" who had had previous successful businesses and who were now acting as mentors and angel investors. For Stuart, this angel and mentor activity was creating a "self-fulfilling environment" of support and a culture of giving back. He expressed hope that the same would emerge in Bristol:

Hopefully we'll get some more businesses that grow and that will be successful, and that will create that community of people who will give good solid advice. There's a small group now, and the group could get better. Whether that's me or other people from Chip-AI, we'll see how that emerges.

By giving back or paying it forward, entrepreneurs were helping to shape the Bristol entrepreneurial ecosystem in two specific ways. First, their active participation meant that the institutional elements that they were engaging with could respond to their needs because it was clear what those needs were. For example, Timothy, Community Manager at Accelerator S,

was able to design programmatic activity that responded to specific challenges faced by a particular cohort: "[If] I know that ten of our companies needs X, if we don't have an in-road into that, then I either design something or I put something together to deliver it." A further example of institutional change brought about through the active participation of entrepreneurs is evidenced by the proliferation of commercial coworking spaces that had recently opened at the time that the interviews were conducted. This was a response to individuals and institutions in Bristol who had been very vocal about the lack of suitable space for entrepreneurs, and who had been able to make the case to national coworking space providers that there would be a market for their services in the city. The resulting increase in coworking spaces meant that there was more visibility for entrepreneurship and more office space availability for up-and-coming entrepreneurs. Shaping the entrepreneurial ecosystem means that institutional elements adapt and change. These revitalised institutions then have a different, hopefully better, offer for future entrepreneurs.

Second, the actions of entrepreneurs also had a positive influence on informal institutions such as cultural and societal norms by further embedding a culture of 'giving back'. Regular examples of entrepreneurs 'giving back' in the Bristol entrepreneurial ecosystem were a visible demonstration that entrepreneurs play a role that can contribute to society, help others, and engender a sense of community.

Shaping the entrepreneurial ecosystem appeared not to be a conscious activity; the driving motivation was to help other entrepreneurs rather than 'help' the entrepreneurial ecosystem. What is evident however, is that the Bristol entrepreneurial ecosystem was constantly being

enacted and reimagined by the entrepreneurs within it: by contributing to a culture of 'giving back', entrepreneurs were therefore able to shape the entrepreneurial ecosystem. The significance of this is finding is that it ascribes agency to entrepreneurs, above and beyond how they are depicted in the extant literature. By 'giving back', entrepreneurs are transitioned from being passive recipients of entrepreneurial support and resources, to actively playing a role in influencing the institutional elements of the entrepreneurial ecosystem.

7.5 Conclusion

This chapter opened with the research question (RQ3): "How do entrepreneurs experience and perceive the entrepreneurial ecosystem?". The extant entrepreneurial ecosystems literature overlooks the experiences and perceptions of the entrepreneur, even while placing the entrepreneur at the centre of the institutional elements that comprise the entrepreneurial ecosystem. This chapter has presented an exposition of how entrepreneurs experience four aspects of the Bristol entrepreneurial ecosystem. The four aspects considered were accelerator programmes; get-togethers; investment; and office space. The empirical evidence shows that the experiences of early-stage entrepreneurs is different to that of later-stage entrepreneurs. Whilst the institution-led frameworks indicate that the elements are in theory available to all, it is evident from the experiences of entrepreneurs in Bristol that certain institutional elements are employed by entrepreneurs with different levels of experience and at different stages of their journey. This finding indicates that the literature would benefit from more nuance when using the catch-all term 'entrepreneur'.

The chapter moved on to explore how entrepreneurs perceive the entrepreneurial ecosystem based on their experiences. As such, each entrepreneur has their own individualised conceptualisation of the entrepreneurial ecosystem. However, there are generalisations that can be made based on the stage of entrepreneur and their business. Two versions of the conceptual model were presented, to show how an early-stage entrepreneur's view of their entrepreneurial ecosystem was mostly local and within its geographic boundaries (the middle layer), whereas a later-stage entrepreneur's perception was that most of the resources needed were based outside the geographic boundaries of the entrepreneurial ecosystem (the outer layer). This finding also builds on the findings of Chapter 5, that an entrepreneurial ecosystem is as much relational as it is geographic, and that building relationships with external institutional elements can be an important way for entrepreneurs to overcome physical distance to access necessary support and resources.

The final section of this chapter demonstrated that entrepreneurs play an active role in shaping the entrepreneurial ecosystem by contributing to a culture of 'giving back'. By highlighting how entrepreneurs shape the entrepreneurial ecosystem, our understanding of entrepreneurs as passive actors at the centre of the entrepreneurial ecosystem is refocused to show them as active agents who can influence how different institutional elements serve their needs. There are multiple dynamics at play, all of which mean the entrepreneurial ecosystem is constantly evolving. In practical terms, these findings are important for practitioners within entrepreneurial ecosystems as it means they can direct their resources and energy appropriately to respond to entrepreneurs at different stages of their journey.

How this chapter contributes to knowledge is by more thoroughly interrogating how the term 'entrepreneur' is used in the entrepreneurial ecosystems literature. Given that the experiences of early-stage and later-stage entrepreneurs differ so widely, I argue that more precision around defining this term is required when researching and writing about entrepreneurial ecosystems. Moreover, this chapter argues that the literature would be enriched by acknowledging the agency of entrepreneurs in their ability to shape the culture of the entrepreneurial ecosystem by 'giving back', and how their active participation in the entrepreneurial ecosystem can influence the direction of its constituent institutional elements. Positioning entrepreneurs as active agents in this way shows that they, like ecosystem enablers, can play a role in the mechanisms and ongoing development of the entrepreneurial ecosystem.

CHAPTER 8. Conclusion

8.1 Introduction

This final chapter synthesises insights from the research in order to draw out the contributions to knowledge and show the possible implications for policy and practice. The chapter is structured as follows. First, I summarise the key insights that emerged through the process of responding to the research questions. Second, I discuss how these insights contribute to our knowledge of the phenomenon and where they add to the entrepreneurial ecosystems literature. Third, I outline some potential implications for policy and practice that arise from the research findings. Fourth, I describe the limitations to this research project, and highlight some opportunities for future research. Finally, I conclude this chapter with a summary of the thesis.

8.2 Key insights from the research

The aim of this research was to understand the mechanisms of entrepreneurial ecosystems.

The figurative use of the term mechanisms was chosen to refer to the *parts* of the entrepreneurial ecosystem and identify how they work together. In doing so, this thesis has explored the entrepreneurial ecosystems phenomenon from multiple angles, ranging from its existence as a theoretical concept and its rooted-ness in place, through to the experiences and perspectives of both entrepreneurs and non-entrepreneur stakeholders who have practical experience of working in the Bristol entrepreneurial ecosystem and its related institutional

elements. In order to explore the concept as thoroughly as possible, three research questions were addressed through the thesis. These were as follows:

RQ1: What are the spatial dimensions of an entrepreneurial ecosystem, and where are its boundaries?

RQ2: What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those processes happen?

RQ3: How do entrepreneurs experience and perceive the entrepreneurial ecosystem?

A close reading of the entrepreneurial ecosystems literature in Chapter 2 established the relevance and timeliness of this research project through an examination of the concept across three thematic areas: place and space; the institutional elements of an entrepreneurial ecosystem; and the individual entrepreneur. A critical analysis of the literature identified areas that merited further investigation, thus leading to the formulation of the above research questions. In Chapter 3, the two dominant conceptualisations for how an entrepreneurial ecosystem is envisaged were presented and critically analysed. In response to the identified limitations of the institution-led frameworks and schematic diagrams, a new conceptual model was introduced, and its explanatory power in relation to the three research questions was described. This conceptual model was employed in the subsequent empirical chapters to help explain the findings. Chapter 4 outlined the research philosophy, methodology, and methods employed in gathering and analysing data. Chapters 5, 6, and 7 were dedicated to an exposition of the findings that emerged through a thematic analysis of the data gathered and generated through the practical qualitative fieldwork that was conducted in Bristol in 2019.

Through the process of conducting the empirical fieldwork, and in responding to the above research questions, three main findings emerged which will be outlined in the following pages.

The geography of an entrepreneurial ecosystem is determined by relational ties

In Chapter 5, I addressed RQ1: "What are the spatial dimensions of an entrepreneurial

ecosystem, and where are its boundaries?". To do so, I explored the views of entrepreneurs

and non-entrepreneur stakeholders to understand their perspectives on the geography of the

Bristol entrepreneurial ecosystem. The aim here was to respond to an identified gap in the

literature whereby the spatial dimensions of entrepreneurial ecosystems are under-theorised

and not well understood (Schäfer, 2021). Although there is debate over the most appropriate

scale to use in an analysis of an entrepreneurial ecosystem (Malecki, 2018), it is fundamentally

a place-based concept (Cohen, 2006; Mason and Brown, 2014; Stam, 2015). In this chapter, I

situated Bristol within its regional geographic and political context, and highlighted some of the

many ways in which our geographic environs are conceptualised and interpreted,

acknowledging that political, economic, and geographic boundaries rarely align completely

(Feldman, 2014; Jones, 2017).

Through an analysis of the data, I uncovered a tension between the 'official' boundaries and scale of the Bristol entrepreneurial ecosystem, and the view from practitioners working within the institutions located there. Officially, I found that the Bristol entrepreneurial ecosystem is perceived to span the West of England: a politically defined geography that includes the city of Bristol, Bath & North East Somerset, North Somerset, and South Gloucestershire. This 'official' view was evident both from the regional and national grey literature (*Annual Scaleup Review*

2018, 2018; Scaleup Generator, 2018; Tech Nation, 2018) and came through in interviews with senior directors at the main local and regional political bodies in the area (Bristol City Council and WECA). However, when non-entrepreneur stakeholders were asked about the locations of the main institutions within the entrepreneurial ecosystem, the geography was much smaller: centring on the city of Bristol, reaching north to include a set of institutions in the 'northern fringe' of Bristol (within South Gloucester), and in some cases, reaching east to include Bath. These non-entrepreneur stakeholders were predominantly individuals working for accelerator programmes, incubators, coworking spaces, and within entrepreneurship-supporting functions at the universities, i.e., they were employed by the main institutions within the Bristol entrepreneurial ecosystem. This suggests that the boundaries of an entrepreneurial ecosystem are not always obviously 'regional' along established socio-political-economic-geographic lines, despite the confident claim in the literature that an entrepreneurial ecosystem is a regional phenomenon (Cohen, 2006; Stam and van de Ven, 2007; Motoyama, Watkins and Knowlton, 2014; Brown and Mason, 2017; Florida, Adler and Mellander, 2017; Stam and Spigel, 2017). The basis upon which non-entrepreneur stakeholders asserted their view of the geography of the entrepreneurial ecosystem was due to their knowledge of institutions located in these areas which were active in supporting entrepreneurs and influenced by their own personal connections with individuals working for those institutions. What this revealed to me was that relational ties between institutions were significantly important in influencing how nonentrepreneur stakeholders envisaged the geography of the Bristol entrepreneurial ecosystem.

Building on this insight garnered from my interviews with non-entrepreneur stakeholders,

Chapter 5 then explored the boundaries of the Bristol entrepreneurial ecosystem from the

perspective of entrepreneurs who were building their businesses there. It transpired that the entrepreneurs thought differently to non-entrepreneur stakeholders about geographic matters in relation to place-based entrepreneurship. The latter, comprising policymakers and practitioners, took a view of the geography that was informed by their interest in regional economic development, their knowledge of regional politics, and their own professional ties as referenced above. The former, who were active in building startups and scaleups, had a view of geography based on where they could access the right support for their businesses. In Chapter 7, I showed how this motivation meant that sometimes entrepreneurs would access support from institutions located outside the geographic boundaries of Bristol and its environs, thus extending entrepreneurs' perceptions of the boundaries of their entrepreneurial ecosystem.

Drawing on the notion of place attachment, insideness, and outsideness (Relph, 1976), Chapter 5 demonstrated how entrepreneurs also used language such as 'being part of' or 'being inside' the Bristol entrepreneurial ecosystem, indicating the extent to which they felt tied to that particular place, and reflecting the close-knit nature of the networks in which they were active and embedded. These embedded entrepreneurs found it relatively easy to access the support that they needed, but there were others who found the entrepreneurial ecosystem harder to navigate. This group of entrepreneurs felt that they were excluded from accessing some or all of the institutional elements; in other words, they felt that they were 'outside' the relational entrepreneurial ecosystem, despite living and working in the geographically defined Bristol entrepreneurial ecosystem. There were three barriers to inclusion cited by this latter group of entrepreneurs: socio-economic background, gender, and ethnicity. The perception of the Bristol entrepreneurial ecosystem from those entrepreneurs who felt that they were 'outside' it

was that it was easier to be 'inside' if an entrepreneur was one or all of the following: from a higher socio-economic background, male, and white. A sense of 'outsideness' was felt by the individuals amongst my interviewees who did not fit that mould.

Drawing on these insights, I argued that these contrasting views of feeling inside or outside the entrepreneurial ecosystem add weight to the importance of relational ties in determining the geographic boundaries of the entrepreneurial ecosystem. By identifying that some entrepreneurs feel a sense of 'outsideness', it becomes possible to envisage that an individual may geographically be living or working in a particular regional entrepreneurial ecosystem, but that relationally they feel that they are not inside it. Coupling this with the finding described above, that an entrepreneur might sometimes reach outside the geographic confines of the entrepreneurial ecosystem in order to access support via their own relational ties, it becomes clear that the geography of an entrepreneurial ecosystem is much more complex than simply mapping institutions within a politically or economically defined region. Uncovering the perspectives of entrepreneurs in Chapters 5 and 7 also highlighted that the boundaries and scale of the Bristol entrepreneurial ecosystem are subjective and dependent on an individual's experiences and relationships, further emphasising the importance of relational ties in defining geographic boundaries.

The maintenance and development of an entrepreneurial ecosystem relies on Ecosystem Development Work and ecosystem enablers.

Chapter 6 was dedicated to answering RQ2: "What are the processes that make an entrepreneurial ecosystem function effectively, and who are the people who make those

processes happen?". This two-part question responds to two corresponding gaps in the literature. First, while there is common agreement about which institutional elements are necessarily present within an entrepreneurial ecosystem (Neck *et al.*, 2004; Isenberg, 2011; World Economic Forum, 2013; Stam, 2015; Brown and Mason, 2017; Spigel, 2017), there is a lack of explanation about how those institutional elements coalesce to create the environment for productive entrepreneurship (Brown and Mawson, 2019; Wurth, Stam and Spigel, 2021). Second, the role of intermediaries within an entrepreneurial ecosystem is under-developed in the literature, despite an acknowledgement that other people beyond entrepreneurs are important (Feldman and Zoller, 2012; Brown and Mason, 2017; Malecki, 2018; Spigel, Kitagawa and Mason, 2020).

Through a thematic analysis of my interviews with entrepreneurs and non-entrepreneur stakeholders, I was able to identify four processes which contributed towards the development of the Bristol entrepreneurial ecosystem. These processes are making introductions and signposting entrepreneurs; facilitating networks and creating communities; easing information flows between institutions; and constructing the identity and narrative of the entrepreneurial ecosystem. By bringing these four processes together under the newly-coined term Ecosystem Development Work (EDW), the aim is to demonstrate the collective importance of these activities at the scale of the whole entrepreneurial ecosystem. The first two activities listed here (making introductions and signposting entrepreneurs, and facilitating networks and creating communities) are not new insights: the literature is clear that entrepreneurs benefit from introductions to mentors, peers, and investors (Florida and Kenney, 1988; Lichtenstein and Lyons, 2001; Anderson and Jack, 2002; Motoyama, Watkins and Knowlton, 2014; Miller and

Acs, 2017), and that it is advantageous for entrepreneurs to be part of networks (Motoyama, Watkins and Knowlton, 2014; Mack and Mayer, 2016; Auerswald and Dani, 2017; Stam and Spigel, 2017; Audretsch, Belitski and Cherkas, 2021).

The second two activities (easing information flows between institutions, and constructing the identity and narrative of the entrepreneurial ecosystem) are novel findings. The literature is clear that the entrepreneurial ecosystem relies on interactions and connections between institutional elements (Stam and van de Ven, 2007; Isenberg, 2011), and the insight in Chapter 6 comes from describing exactly how this occurred in practice. It was shown that the monthly TBBN meetings for programmes managers of incubators, accelerators, and coworking spaces, were an essential conduit for information-sharing, coordination of activities, and knowledge exchange. Narrative-building has been identified as a process within entrepreneurial ecosystems: for instance, Roundy and Bayer (2019) distinguish between micro narratives (stories of successful entrepreneurs) and macro narratives (stories about the entrepreneurial ecosystem). Chapter 6 further develops the notion of macro narratives and shows how these were constructed from both top-down and bottom-up perspectives within the Bristol entrepreneurial ecosystem.

Chapter 6 then identified who carried out these EDW activities. The insight here is that it is ecosystem enablers who play this key role in the entrepreneurial ecosystem to ensure that it functions effectively. Again, using a newly-coined term, the ecosystem enabler role builds on the literature about dealmakers (Feldman and Zoller, 2012) and bridging assets (Mason and Brown, 2014) to show that non-entrepreneur actors play an important role within the

entrepreneurial ecosystem, not just in terms of how they relate to entrepreneurs, but also how they contribute to the development of the entrepreneurial ecosystem. Whereas much of the literature places entrepreneurs in a leadership role within the entrepreneurial ecosystem (Feld, 2012; Stam, 2015), this chapter argues that it is ecosystem enablers who have the capacity, time, dedication, and ability to actually carry out this leadership in practice. Ecosystem enablers are shown to be trusted individuals with a high level of social capital who are firmly embedded (Granovetter, 1985) within their community. This echoes some of the literature in that trust is an attribute of dealmakers (Feldman and Zoller, 2012) and that social capital is shown to be important as both a glue and a lubricant for entrepreneurial ecosystems (Anderson, Park and Jack, 2007).

A further finding relayed in Chapter 6 is that, despite its importance, much of the EDW that occurs in an entrepreneurial ecosystem is not fully realised or acknowledged by entrepreneurs. Even though entrepreneurs clearly valued the outcome and impact of EDW and the activities of ecosystem enablers, they showed little to no awareness of the processes and people behind the scenes. It was argued that this could have negative ramifications on long-term support and funding for EDW and the role of ecosystem enablers, thus potentially impacting negatively on the resilience of the entrepreneurial ecosystem (Roundy, Brockman and Bradshaw, 2017).

Entrepreneurs' experiences and perceptions of the entrepreneurial ecosystem are dependent on their professional background and the stage of their business In Chapter 7, I responded to RQ3: "How do entrepreneurs experience and perceive the

entrepreneurial ecosystem?". In this chapter, I chose to bring to the fore the voice of

entrepreneurs, whose perspectives on the entrepreneurial ecosystem are often overlooked in the literature, despite their centrality to the concept (Feld, 2012; Alvedalen and Boschma, 2017; Brown and Mason, 2017; Brown and Mawson, 2019; Feld and Hathaway, 2020). The dominant approach to understanding an entrepreneurial ecosystem is top-down, led by our view of it as comprised of institutional elements. But we lack an understanding of how entrepreneurs respond to their environment or indeed what their bottom-up perspective on the entrepreneurial ecosystem might be. Related to this, the literature lacks nuance in defining and specifying who an entrepreneur is, in terms of their previous experience and the stage of their business.

What emerged from a thematic analysis of entrepreneurs' interviews was the observation that there were similarities between entrepreneurs whose businesses were at a similar stage (startup or scaleup) or who shared a similar level of entrepreneurial know-how (early-stage entrepreneur or later-stage entrepreneur). I found that early-stage entrepreneurs and founders of startups were more likely to draw upon resources available within the local entrepreneurial ecosystem, whereas later-stage entrepreneurs and founders of scaleups were more likely to look outside the geographic boundaries of the entrepreneurial ecosystem to access the resources they needed. Within this broad insight, there were four further findings that I found to be pertinent, described in the following paragraphs.

First, although accelerator programmes are typically aimed at early-stage entrepreneurs (Cohen and Hochberg, 2014), there were instances in which later-stage entrepreneurs took part in an accelerator. This was in order to benefit from specific and tailored advice about scaling

their companies at a particular growth inflection point, and often required travelling outside of the Bristol entrepreneurial ecosystem.

Second, I discovered that the activity of attending meetups and events for the purpose of extending networks is most applicable for early-stage entrepreneurs, and that once networks had been established, entrepreneurs' attendance at get-togethers tended to decrease.

Meetups and events are not explicitly listed as institutional elements within the entrepreneurial ecosystems literature, despite their importance in enabling entrepreneurs to meet peers (Stam and Spigel, 2017), expand their networks (Spigel, 2018), and develop their own entrepreneurial skills (Harrington, 2017). I found that later-stage entrepreneurs very rarely attended get-togethers because they already had established networks of peers and mentors. However, despite this, I found that later-stage entrepreneurs could still see the value in meetups and events from the point of view of providing opportunities for recruitment. This latter point is not made explicit in the literature, which focusses more on the peer exchange and knowledge sharing benefits of networking for early-stage entrepreneurs.

Third, it was evident that while startup founders were usually able to raise investment by accessing resources in the local entrepreneurial ecosystem, scaleup founders had to look outside the geographic boundaries. This is reflective of a broader picture of unequal distribution of investment opportunities within the UK, and indicates that later-stage entrepreneurs need to rely on their pre-existing networks, knowledge, and skills in order to obtain the resources they need (Vedula and Kim, 2019).

Fourth, I found that startup and scaleup founders alike encountered difficulties in finding suitable office space within the Bristol entrepreneurial ecosystem, something which is not explicitly referenced in the existing literature, but which is of fundamental importance to the success of entrepreneurs' endeavours. The precise meaning of 'physical infrastructure' is not sufficiently detailed in the literature, despite its inclusion as one of the institutional elements of an entrepreneurial ecosystem within the institution-led frameworks (Isenberg, 2011; Brown and Mason, 2017; Stam and Spigel, 2017). Chapter 7 shows that there is a well-trodden path for entrepreneurs to start off in a coworking space, then move to serviced offices as their company expands, before needing to find a dedicated office space on the commercial property market. Office space is intrinsically tied to physical place, and it is remiss that this institutional element is overlooked within the literature.

Just as an entrepreneur's experience of the entrepreneurial ecosystem is influenced by the stage of their business and their own entrepreneurial skillset and background, so too are their perceptions. Here, it is pertinent to bring in one of the findings described in Chapter 6, that entrepreneurs do not readily use the term 'entrepreneurial ecosystem', if at all, when discussing their experiences of starting and scaling a business. Instead, entrepreneurs spoke about the types of support they had received very specifically, whether that was from an institution such as an incubator or accelerator, or from a particular individual. Combining this finding from Chapter 6 with the finding from Chapter 7 (that an entrepreneur's perception of the entrepreneurial ecosystem is based on their experiences of its institutional elements) leads to the insight that entrepreneurs do not 'see' the entrepreneurial ecosystem as a whole. The theoretical conceptualisation of an entrepreneurial ecosystem is that it is comprised of certain

institutional elements. Compared to this, an entrepreneur's conceptualisation can only ever be partial, as it is based only on the institutional elements that he or she interacts with.

8.3 Contributions to knowledge

This research contributes to the developing body of literature that focusses on the causal mechanisms of entrepreneurial ecosystems and takes steps towards understanding some of what is required to ensure the longer-term development of entrepreneurial ecosystems. In this section I will outline how the insights described in the preceding pages contribute to our knowledge of the entrepreneurial ecosystem concept.

First, this research has led to the **development of a new conceptual model for understanding** and explaining an entrepreneurial ecosystem (Chapter 3). This conceptual model differs from schematic diagrams and the academic institution-led frameworks in that it puts the entrepreneur clearly at the centre. This model also enables a view of the boundaries of the entrepreneurial ecosystem that are relational as well as geographic. While an entrepreneurial ecosystem is firmly rooted in place, the conceptual model shows how relational ties transcend geographic boundaries, thus expanding and reconfiguring the accepted view of the concept.

Second, this thesis argues that **the boundaries of an entrepreneurial ecosystem are as much relational as they are geographic** (Chapter 5). This deepens our understanding of the spatial aspects of entrepreneurial ecosystems (Schäfer, 2021). The theoretical contribution here is that an entrepreneurial ecosystem is not only a place-based phenomenon, but that it is also formed

of, and influenced by, people and relationships. This view of an entrepreneurial ecosystem contributes towards a more holistic understanding of the phenomenon from the point of view of how it is socially constructed.

Third, this thesis moves the literature closer towards an understanding of the mechanisms of entrepreneurial ecosystems, by uncovering the processes and people that make entrepreneurial ecosystems function (Chapter 6). This contribution also extends the current institution-led definitions of the concept by highlighting the important role that people within those institutions play. The entrepreneurial ecosystems literature is further enriched by the identification of ecosystem enablers in this thesis: this role builds on the existing concepts of dealmakers (Feldman and Zoller, 2012) and bridging assets (Mason and Brown, 2014) to show the full range of Ecosystem Development Work that is required to make an entrepreneurial ecosystem function. Combined, this new knowledge moves us towards a more dynamic understanding of the entrepreneurial ecosystems concept.

Fourth, this thesis unpacks the term 'entrepreneur' and ascribes the entrepreneur with agency in shaping the entrepreneurial ecosystem to add more nuance to the literature in this field (Chapter 7). What is overlooked in the literature is that different entrepreneurs at different stages of business have very different experiences of, and perspectives on, the entrepreneurial ecosystem. This thesis demonstrates that only some of the institutional elements will be relevant to early-stage entrepreneurs and startups, and these are likely to be located within the geographic boundaries of the entrepreneurial ecosystem. It is shown that later-stage entrepreneurs and scaleups often have to look outside of the geographic

boundaries of the entrepreneurial ecosystem to access the resources they require. A further theoretical contribution is that entrepreneurs have agency and can shape the entrepreneurial ecosystem of which they are part through a culture of 'giving back'. This contributes to theory by ascribing agency to the entrepreneur, moving them beyond merely being a recipient of the resources and services provided within the entrepreneurial ecosystem, and towards being active and influential in how the entrepreneurial ecosystem functions.

8.4 Implications for policy and practice

In undertaking this research project, I have been able to identify practical implications that I believe are transferable from one context to another. These recommendations to policymakers and practitioners are outlined below.

Develop relational ties inside and outside the entrepreneurial ecosystem

This research project shines a light on the importance of networks and relational ties within an entrepreneurial ecosystem, and demonstrates that close relational ties can, in some cases, overcome the geographical distance between different institutional elements of the entrepreneurial ecosystem (Chapters 5, 6, and 7). The recommendation here is for practitioners to develop these relational ties regardless of the geography of the entrepreneurial ecosystem in which they are based. If there are beneficial resources in another city or region, it makes sense to build a relationship there so that entrepreneurs can be appropriately signposted. A further related practical contribution is that policymakers and practitioners need to be aware of how entrepreneurs might feel excluded from the entrepreneurial ecosystem, and what might

need to be done to ensure that the entrepreneurial ecosystem is indeed open and accessible to all, regardless of socio-economic background, gender, or ethnicity (Chapter 5). The related recommendation is to assess where the barriers are and respond to those barriers, whether that is through a specific intervention, or by ensuring that events and meetups are held in different spaces around the region that are frequented by different members of the wider entrepreneurial community.

Invest in Ecosystem Development Work

This thesis has highlighted the often unseen and under-valued work that goes on behind the scenes of the entrepreneurial ecosystem (Chapter 6). Specifically, policymakers and practitioners need to recognise that the entrepreneurial ecosystem is much more than the sum of its institutional parts, and that it relies on sustained EDW to develop. The intra-institutional knowledge sharing, the common language and narrative, and the coherence between those institutional elements are all needed if an entrepreneurial ecosystem is to flourish. The implication for policymakers and practitioners is to recognise the 'invisible' processes of Ecosystem Development Work in order to support the maintenance and ongoing development of their entrepreneurial ecosystem. Armed with this knowledge, the practical recommendation is that policymakers and practitioners invest in the activities and processes that comprise Ecosystem Development Work by advocating for funding that specifically helps them to develop the entrepreneurial ecosystem as a whole.

Support the role(s) of ecosystem enablers

Related to the above, this research project has identified ecosystem enablers as the individuals who carry out Ecosystem Development Work (Chapter 6). Ecosystem enablers are highly significant to the entrepreneurial ecosystem and its ongoing development: their role is essential in order for the activities that comprise Ecosystem Development Work to happen. For instance, if policymakers and practitioners are aware that entrepreneurs benefit from being part of a network, they need to also recognise that it takes human resources to facilitate those networks. The practical recommendation is to support the ecosystem enabler role by sourcing and allocating long-term funding. Ecosystem enablers must retain a degree of independence from the funding body (or that funding body needs to be a neutral actor) in order to gain legitimacy in the entrepreneurial ecosystem.

Respond to the varying needs of different entrepreneurs

This research project has led to an increased awareness of the different needs of early-stage entrepreneurs and later-stage entrepreneurs, and startups and scaleups (Chapter 7). The practical implication is that resources and support available within the entrepreneurial ecosystem need to be tailored to the needs of the entrepreneurs at different stages of their journey. The related recommendation is to assess the support provided within an entrepreneurial ecosystem and ensure that the available programmes respond to the needs of entrepreneurs. For instance, in an entrepreneurial ecosystem that comprises many more early-stage startups than scaleups, it makes sense to ensure that there are good quality non-sector-specific accelerator programmes that can help a wide range of businesses. Related to this, policymakers and practitioners need to be cognisant of creating and maintaining good

relationships with business support providers and investors outside of the entrepreneurial ecosystem, so as to better signpost later-stage entrepreneurs to specific support that they might need.

8.5 Limitations and opportunities for further research

As delineated in the two preceding sections, this research project has resulted in a number of insights that can contribute towards a deeper understanding of the entrepreneurial ecosystems concept in theory, and moreover, that can have a tangible impact in practice. During the course of the fieldwork, I found that interviewees shared in my enthusiasm for the topic and were interested in the potential practical learnings that could arise from the research. In my professional life too, colleagues in the public and private sectors have demonstrated that they are keen to develop potential interventions based in part on the insights of this research project. However, it would be remiss to overlook the limitations of the research. Highlighting these limitations offers the opportunity to improve the current work as well as offer scope for future research.

The first limitation is intrinsic to a qualitative methodology and the nature of the PhD process: the research is not longitudinal. The fieldwork was conducted over seven months in 2019 and was intended to provide insights into the Bristol entrepreneurial ecosystem. In seeking to respond to the research questions that guided the project, I reached saturation with data collection, and was able to move to the thematic analysis and write-up. Ultimately, through this process I am confident that I have contributed to the literature by responding to the

overarching aim of this project which was to understand the mechanisms of an entrepreneurial ecosystem. However, an even greater understanding could be achieved through research conducted over a greater length of time, as it would then be possible to conduct repeat interviews and observe how the entrepreneurial ecosystem responds to changes. A longitudinal study would enable a more in-depth exploration of the ongoing development of the entrepreneurial ecosystem. As highlighted in Chapter 6, the ecosystem enabler role is somewhat precarious, and indeed, a number of key ecosystem enablers whom I interviewed in Bristol in 2019 are no longer in their same roles. A longitudinal study would allow the researcher to enquire into the reasons for leaving the ecosystem enabler role, which would either prove or disprove my assumption that the ecosystem enabler role is undervalued by policymakers and entrepreneurs.

A second limitation is related to the above and is due to the point in time in which I conducted my PhD research in 2019, i.e., before the COVID-19 pandemic. I had finished carrying out my fieldwork before COVID-19 became a disruptive force globally, and my last interview took place in August 2019, over six months before the resulting lockdowns in the UK (which were in place from March 2020 onwards). A longitudinal study that encompassed the pre-pandemic world as well as the present day would open up the possibility of researching how an entrepreneurial ecosystem responds to exogenous shocks, and thus would extend the insights of this thesis and contribute to the literature of resilience.

In the early months of the global pandemic, our lives fundamentally changed. Working from home became the norm, face-to-face meetings were suspended, coworking spaces and offices

were empty. My immediate research-related concern at that moment in time was that my data was suddenly and completely irrelevant, given that it had been gathered before COVID-19 disrupted all societal systems, when entrepreneurs' engagement with the institutional elements of the entrepreneurial ecosystem (meetups, events, coworking, accelerator programmes etc.) took place in person. Thankfully, I was spared having to worry too much about the impact of COVID-19 on my research, as the first week of lockdown in March 2020 coincided with the first week of my maternity leave. Moreover, over the course of writing up the thesis (as a part-time student from March 2021 to December 2022), much of what had shifted and changed due to the pandemic returned to how it had been before. For instance, coworking and office spaces reopened, and events and meetups in person started taking place again. There have, however, been some changes within the institutional elements of an entrepreneurial ecosystem which would make for interesting research. During the pandemic, many accelerator programmes moved to being online only, and now many have adopted a hybrid approach of some in-person delivery combined with online sessions. While this research project has elucidated entrepreneurs' experiences and perceptions of the entrepreneurial ecosystem and its institutional elements including accelerator programmes, a future avenue for research would be to see how those experiences and perspectives changed for entrepreneurs who took part in online or hybrid accelerator programmes.

There were some themes which emerged through the data analysis which would certainly merit further exploration, but which were out of scope for this thesis. The themes of governance and power within the entrepreneurial ecosystem were implicit through many of the interviews.

Most of the ecosystem enablers were 'self-appointed', especially those who were undertaking

to run activities voluntarily, or who had stretched the confines of their job descriptions to include elements of Ecosystem Development Work. While this research project found that ecosystem enablers were driven by a non-selfish desire to improve entrepreneurial outcomes, this role still came with a level of power: ecosystem enablers are well-networked and trusted individuals, and their words and actions carried weight. Somewhat related to governance and power is what role the public sector can play in an entrepreneurial ecosystem. This theme arose across a number of interviews: many non-entrepreneur stakeholders were dismissive of the public sector whilst simultaneously arguing for greater public sector funding to enable Ecosystem Development Work. A fruitful avenue for further research would be to look in more depth at how other entrepreneurial ecosystems around the world fund some of the activities and processes that contribute to this kind of work.

A further opportunity for future research would be to conduct a similar investigation in an entirely different entrepreneurial ecosystem. One could build on emerging research that looks at entrepreneurial ecosystems in the developing world or in rural contexts, where one cannot rely on the existence or smooth functioning of the main institutional elements. For instance, towns in the UK (as opposed to cities) often lack the institutions that are argued to be integral to an entrepreneurial ecosystem: a study conducted by BEIS (2017) found that accelerators in the UK were predominantly based in large urban conurbations. Conducting research into the existence and activities of ecosystem enablers in a place where the entrepreneurial ecosystem lacks the appropriate institutional infrastructure would provide further insight into the ecosystem enabler role. It would be revealing to understand to what extent ecosystem enablers in these contexts are able to join the dots between the disparate and incomplete

elements of an entrepreneurial ecosystem, how they might go about signposting entrepreneurs to relevant support, and whether they are able to build enough of an identity and narrative about the entrepreneurial activity taking place.

8.6 Summary

This thesis set out to uncover the mechanisms of an entrepreneurial ecosystem. This concluding chapter has showcased the insights generated through the research process, has highlighted the theoretical contributions and practical implications of these insights, and has discussed the limitations of the project and related avenues for future research. This last section provides a succinct summary.

Based on the empirical fieldwork and data analysis, three main insights emerged. First, the geography of an entrepreneurial ecosystem is determined by relational ties. Second, there are certain processes (Ecosystem Development Work) and individuals (ecosystem enablers) who contribute towards the maintenance and development of the entrepreneurial ecosystem.

Third, entrepreneurs' experiences and perceptions of the entrepreneurial ecosystem are dependent on the stage of their business and their professional background.

This research has responded to identified gaps in the literature, and in doing so has made four contributions to knowledge. First, a conceptual model has been proposed which responds to weaknesses in two existing conceptualisations (institution-led frameworks and schematic diagrams) and helps us to better understand and explain the entrepreneurial ecosystem.

Second, this research contributes to a greater degree of theorisation over the spatial aspects of an entrepreneurial ecosystem, in particular in relation to boundaries and scale. Third, the identification of EDW and ecosystem enablers contributes to our understanding about the mechanisms and development of entrepreneurial ecosystems. Fourth, the term 'entrepreneur' has been unpacked to add nuance, and the entrepreneur has been shown to have agency in shaping the entrepreneurial ecosystem.

The practical implications are drawn from the theoretical contributions and are fourfold. First, it is recommended that relational ties both inside and outside the entrepreneurial ecosystem are formed and strengthened. Second, it is recommended that policymakers and practitioners ensure that their entrepreneurial ecosystem responds to the varying needs of different entrepreneurs. Third and fourth, it is recommended that EDW and the role of ecosystem enablers are supported and invested in over the long term.

Limitations to the research were identified, and avenues for future research were explored.

Longitudinal research in this area would greatly add to our understanding of how an entrepreneurial ecosystem responds to both endogenous and exogenous shocks. The impact of the COVID-19 pandemic on certain features of the entrepreneurial ecosystem (for instance, accelerator programmes moving to online or hybrid delivery), and how this compares to the pre-pandemic insights presented in this thesis, would make for an interesting study that would contribute to our understanding about the resilience of entrepreneurial ecosystems. Themes of governance and power within entrepreneurial ecosystems, in particular considering the self-appointed leadership of ecosystem enablers, would be fruitful to consider. And finally, applying

the conceptual model to an entirely different entrepreneurial ecosystem would both add to our empirical knowledge about the concept as well as strengthen (or disprove) the usefulness of the conceptual model as a heuristic tool.

This thesis has advanced our understanding of the mechanisms of an entrepreneurial ecosystem through a consideration of place, processes, people, and perspectives. It is hoped that the insights and contributions to knowledge outlined here can extend to the academic discourse and literature about entrepreneurial ecosystem mechanisms and development. The contention of this thesis is that by identifying and explaining the mechanisms of entrepreneurial ecosystems, we can deepen our understanding of how an entrepreneurial ecosystem functions and address the disconnect between policy and practice that was the original impetus for this research project. This in turn enables the development of suitable policy-led and practical interventions to support the ongoing development of (an) entrepreneurial ecosystem(s) that are theoretically-sound and based on strong empirical evidence.

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APPENDICES

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Appendix 1: Interview schedule for entrepreneurs

Preamble

Thank you for making the time for this interview. It shouldn't take more than an hour, maybe less, but we may find it runs over. Is that ok? Is there a particular time that you need to leave by?

With your permission, I'd like to record this interview and transcribe it afterwards. This will mean that I can concentrate fully on your answers now, rather than needing to take notes. The recording and the transcription will only be available to me and won't be shared with anyone else. Is that ok?

Before we get started, please take a few moments to read this information sheet. If you have any questions, let me know. I've also got a consent form for you to give your consent to take part in this interview. Please have a read through, tick the appropriate boxes, and sign at the bottom. Let me know if you have any questions. There's a copy of the information sheet and the consent form for you to keep, and a copy of each for me.

Opening

I'd like to ask you some questions about your experience of being an entrepreneur in [city], specifically the type of support you've received and where that's come from, whether formal or informal. I'm interested in the people who have directly or indirectly helped you to build your business, any events or activities that have been helpful, and also any particular places or spaces within [city] that have been useful to you.

The aim of my research is to better understand how entrepreneurs start and grow a business in [city], in particular by exploring the people and places that are significant. I'd like my research to enable policymakers to make better informed decisions about how to support entrepreneurship.

Body

Let's begin with a couple of questions about your business.

Can you tell me about your business?

Nudge: when it began, any co-founders, main product or service?

When did you start your business? And what were you doing before?

What motivated you to start a business?

Let's move on now to discuss any support you received in starting up your business...

Thinking about those early days, what organisations did you approach for support?

Nudge: City Council, LEP, other business support in [city], university etc

What kind of support was available to you from these organisations?

Nudge: Events or workshops or one-to-ones? Generic or specific? What sort of topics? Were there any topics missing that would have been useful? Did you pay or was it free?

What do you think [City Council / university / LEP / coworking space] can or should do more of to support entrepreneurship?

We've talked a lot about organisations and institutions. Turning now to individuals who might have supported you in starting up your business...

Are there any individuals who you can think of who were particularly helpful in the early days, or indeed now, as you grow your business?

Nudge: Their name, their role, their organisation. Was the support direct or indirect?

And in terms of more informal support, did you have family or friends who could help? Nudge: How did they help? What support did they provide? Who inspired you?

When you started up, did you know any other entrepreneurs?

Nudge: If yes, who and how did they meet? If no, would that have made any difference?

Do you feel like there is a network or perhaps several networks of entrepreneurs in [city]? Nudge: When you moved into the city, who did you contact or know?

How do you fit into that network?

Nudge: For instance, is it an ongoing community of entrepreneurs that regularly meets up, or more something that anyone can be part of as and when they need to be?

As well as how individuals and organisations support entrepreneurs, I'm also interested in learning about the places and spaces that are significant to entrepreneurs. So I have a few questions on that topic...

Where do you mostly work from?

Are there other places in [city] that you go to for your business, either for an event, or to work, or to meet new people?

Where would you say entrepreneurship "happens" in [city]? i.e. If there's an event, or if you want to meet other entrepreneurs, where would you gravitate towards?

And finally, I'd like to ask a few questions about what the ecosystem / environment for entrepreneurs is like now in [city]...

[Either one of the below questions, depending on what has been said so far]

- *You mentioned the word ecosystem before. How would you describe the ecosystem in [city]?
- *A lot of what you have talked about so far could be considered to be part of [city's] entrepreneurial ecosystem. Have you come across that term before?

Nudge: What does the term ecosystem mean to you? What elements comprise an ecosystem?

Do you think there is a general understanding in [city] over what an ecosystem is?

Nudge: Where have you heard the word used before? Who uses it and in what context?

You started your business XX years ago. Thinking about entrepreneurs starting out now, do you think the ecosystem / environment is any different?

Nudge: Is it easier or harder to access support?

Closing

[Recap any particularly salient points and check for understanding]

I think we've covered a lot here. Is there anything else you'd like to add, or any points you'd like to clarify? Or indeed, any questions you have for me?

Thank you very much for your time. You've been extremely helpful and given me plenty of food for thought. The next step is that I'll transcribe our interview and use it along with other interviews to build up a picture of the ecosystem in [city].

Would it be ok for me to get in touch if I have any points I want to clarify with you?

Appendix 2: Interview schedule for stakeholders

Preamble

Thank you for making the time for this interview. It shouldn't take more than an hour, maybe less, but we may find it runs over. Is that ok? Is there a particular time that you need to leave by?

With your permission, I'd like to record this interview and transcribe it afterwards. This will mean that I can concentrate fully on your answers now, rather than needing to take notes. The recording and the transcription will only be available to me and won't be shared with anyone else. Is that ok?

Before we get started, please take a few moments to read this information sheet. If you have any questions, let me know. I've also got a consent form for you to give your consent to take part in this interview. Please have a read through, tick the appropriate boxes, and sign at the bottom. Let me know if you have any questions. There's a copy of the information sheet and the consent form for you to keep, and a copy of each for me.

Opening

I'd like to ask you some questions about how [institution / organisation] supports entrepreneurs in [city], specifically the type of support that is offered, whether through your organisation or others. I'm also interested in any particular individuals in [city] who support entrepreneurs and entrepreneurship more generally, whether directly or indirectly. And finally, I'm interested to learn about any particular places or spaces in [city] that are significant to entrepreneurs.

The aim of my research is to better understand how entrepreneurs start and grow a business in [city], in particular by exploring the people and places that are significant. I'd like my research to contribute to our understanding of how to best support entrepreneurs.

Body

Let's begin with a couple of questions about [institution / organisation].

In your own words, how does [institution / organisation] support entrepreneurs in [city]?

How would you describe your role within [institution / organisation]?

Nudge: How does this role fit within the wider context? What do you do that is different?

What motivates you?

Nudge: What do you enjoy about your role?

Let's move on now to discuss how other institutions / organisations supports entrepreneurs...

I've read about XYZ programme that you run for entrepreneurs. Can you tell me a bit about why [institution / organisation] decided to develop that initiative?

Nudge: who made the decision? Was it part of a strategic policy?

Thinking about the [policies / approaches] that [institution / organisation], when were these developed and who by?

Nudge: are they part of an overall strategic approach? What was the impetus to focus on supporting entrepreneurship? What other approaches were considered?

What do you think [City Council / university / LEP / coworking space] can or should do more of to support entrepreneurship?

What is [your institution / organisation]'s relationship like with [the Council, the LEP, the university, other coworking spaces?

Do you think entrepreneurship is a strategic priority for them as institutions / organisations?

Are there particular individuals at these places who focus on entrepreneurship?

And what is your personal relationship like with individuals at these institutions?

Nudge: Talking about collaboration, how does this manifest itself? Are there joint initiatives?

How does knowledge sharing take place?

Since you've been in this role, what do you see as having changed in terms of the prevalence of entrepreneurship in [city]?

Nudge: Why do you think it has changed? What was your / the institution's role in this?

Turning now to individuals in [city] who play a role in supporting entrepreneurs...

Are there any individuals who you can think of in [city] who play an important role in either supporting entrepreneurs directly, or by flying the flag for entrepreneurship?

Nudge: Their name, their role, their organisation. Was the support direct or indirect?

Are you aware of any networks of entrepreneurs in [city]?

Nudge: Are these informal / formal? Coalesce around a space or an event?

Do you feel like there is a network or perhaps several networks of entrepreneurs in [city]?

Nudge: Who "leads" these networks? When did they emerge and how? Is it an ongoing community of entrepreneurs that regularly meets up, or more something that anyone can be part of as and when they need to be?

What do you think the value is of those networks to entrepreneurs directly, and to entrepreneurship more generally?

As well as how individuals and organisations support entrepreneurs, I'm also interested in learning about the places and spaces that are significant to entrepreneurs. So I have a few questions on that topic...

In your opinion, what are the entrepreneurs "hot spots" in [city]?

Nudge: for example, a coworking space, an office, a particular event etc.

Are there other places in [city] that you know of where entrepreneurs go to, whether that's for business, for networking, or for an event?

Where would you say entrepreneurship "happens" in [city]?

And finally, I'd like to ask a few questions about what the ecosystem / environment for entrepreneurs is like now in [city]...

[Either one of the below questions, depending on what has been said so far]

*You mentioned the word ecosystem before. How would you describe the ecosystem in [city]? *A lot of what you have talked about so far could be considered to be part of [city's] entrepreneurial ecosystem. Have you come across that term before?

Nudge: What does the term ecosystem mean to you? What elements comprise an ecosystem?

Do you think there is a common understanding in [city] over what an ecosystem is?

Nudge: Where have you heard the word used before? Who uses it and in what context?

Thinking about entrepreneurs starting out now, do you think the ecosystem / environment is any different?

Nudge: Is it easier or harder for entrepreneurs to access support? Is there a wider recognition of entrepreneurship in [city], both within the city itself and outside?

Would you say that entrepreneurship is of strategic importance for [city], or is it a nice-to-have?

Who's in and who's out of the ecosystem?

Is there anyone else I can talk to?

Closing

[Recap any particularly salient points and check for understanding]

I think we've covered a lot here. Is there anything else you'd like to add, or any points you'd like to clarify? Or indeed, any questions you have for me?

Thank you very much for your time. You've been extremely helpful and given me plenty of food for thought. The next step is that I'll transcribe our interview and use it along with other interviews to build up a picture of the ecosystem in [city].

Would it be ok for me to get in touch if I have any points I want to clarify with you?

Appendix 3: Participant Information Sheet

Research Project Title: Entrepreneurship & Regional Economic Development

Invitation to participate in this research project

Before you decide whether or not to participate, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this document.

The purpose of the research project

The aim of this research is to better understand how entrepreneurs start / run / grow a business in the city and region in which they are based, through an exploration of the people and places that are significant to entrepreneurs. The intended contribution of this research is to enable policymakers to make better informed strategic interventions in their efforts to support entrepreneurship in their city and region. This research project is being undertaken to satisfy the requirements for a PhD at Sheffield University Management School. Data will be collected over 7 months, from January 2019 to August 2019, and it is anticipated that the final PhD thesis will be completed by October 2020.

Why have I been chosen?

You have been chosen to participate in this research because you are either an entrepreneur or someone of significance for entrepreneurship in the city and region, for example a policymaker, the manager of a coworking space, or an investor. Approximately 50 people will be interviewed for this research project.

Do I have to take part?

It is up to you to decide whether or not to take part in this research project. If you do decide to take part you will be given this information sheet to keep, and you will be asked to sign a consent form. Even if you do take part, you can still withdraw your interview at any time⁸⁵ without negative consequences. You do not have to give a reason. If you wish to withdraw from the research, please contact the Lead Researcher, Laura Bennett, libennett1@sheffield.ac.uk

What will happen to me if I take part? What do I have to do?

If you choose to take part in this research, you agree to being interviewed by the Lead Researcher. The interview may last anywhere between 30 minutes and 2 hours - the duration will be discussed and decided with you in advance, alongside the logistics of when (date or time) and where (fixed location or walking) the interview will take place. It is envisaged that you will only need to participate in one interview, however the Lead Researcher may request a second interview, in which case this information sheet will be provided, and your consent (via the consent form) will be requested. Please note that no travel expenses or payments of any kind are available as compensation for your participation.

During the interview, the Lead Researcher will ask you questions relating to entrepreneurship in your city and region. This will be a semi-structured interview, which means that the style is conversational in

⁸⁵ It will be impossible to withdraw your data from the finished written thesis (estimated to be in October 2020), however the audio file and transcript of the interview can be destroyed after that point.

tone, with certain topics and areas to be discussed, but with flexibility to change the order of questions and miss out or add further questions, depending on how the conversation flows. Examples of topics covered:

- How easy it is to start a business in the city or region
- What support is available to entrepreneurs
- Who provides this support, and who pays for this support
- Where does entrepreneurship take place in the city and/or region, i.e., city centre or suburbs
- What location does entrepreneurship take place in the city/region, i.e., coworking spaces etc
- What role do certain institutions play in supporting entrepreneurship, e.g., public sector etc
- Whether entrepreneurs are considered / consider themselves to be part of a network
- How do entrepreneurs access advice and mentorship
- How do entrepreneurs learn new skills and knowledge to help them in their business aims

What are the possible disadvantages and risks of taking part?

There are no foreseeable discomforts, disadvantages, or risks of taking part in this research project. Any unexpected discomforts, disadvantages, and risks to participants which may arise during the research will be brought immediately to your attention.

What are the possible benefits of taking part?

Whilst there are no immediate and direct benefits for participants, it is hoped that the findings from this research project will be of interest to economic development policymakers who want to encourage and support entrepreneurship in their city and region.

Will my taking part in this project be kept confidential?

All the personal information that we collect about you during the course of the research will be kept strictly confidential and will only be accessible to the Lead Researcher. You will not be able to be identified in any reports or publications unless you have given your explicit consent for this. If you agree to us sharing the information you provide with other researchers, then your personal details will not be included unless you explicitly request this. Depending on the nature of your job or position, there is a risk that you may be identifiable. These risks will be explained to you in person at the time of the interview.

What is the legal basis for processing my personal data?

According to data protection legislation (General Data Protection Regulation), I am required to inform you that the legal basis we are applying in order to process your personal data is that 'processing is necessary for the performance of a task carried out in the public interest' (Article 6(1)(e)). Further information can be found in the University's Privacy Notice: https://www.sheffield.ac.uk/govern/data-protection/privacy/general.

What will happen to the data collected, and the results of the research project?

Only the Lead Researcher will have access to the data generated at all stages of the research. Data generated includes audio files of interviews, transcriptions of interviews, and fieldnotes. Personal information will be kept secure at all times, in an encrypted format. Transcription will be carried out by the researcher, and there are no collaborating or partner organisations involved. The Lead Researcher may show some of the data to her two supervisors, however this will always be anonymised and never shared.

Contact details will not be published, nor will they be recorded alongside the interview transcripts. Location will be pseudonymised, for example "Cafe X" and "Coworking Space Y". Individuals will be anonymised in the transcripts and in the final thesis. Job roles will only be referenced if it is significant to the research project (for example, "Coworking Space Manager") and will be generalised as far as possible. There are inherent risks around guaranteeing the anonymity of certain individuals, for example, if they have a particular identifiable role. The Lead Researcher will clearly explain those risks to you.

Due to the interest in this topic, it is very likely that other researchers may find the data collected to be useful in answering future research questions. We will ask for your explicit consent for your data to be shared in this way. Only authorised researchers will have access to this data, and only if they agree to preserve the confidentiality of your personal information. Your personal details will not be revealed to anyone outside of the research project.

Who is organising and funding the research?

This research is funded entirely by the University of Sheffield.

Who is the Data Controller?

The University of Sheffield will act as the Data Controller for this study. This means that the University of Sheffield is responsible for looking after your information and using it properly.

Who has ethically reviewed the project?

This project has been ethically approved via the University of Sheffield's Ethics Review Procedure, as administered by Sheffield University Management School. It is in line with the University Research Ethics Committee (UREC), which is the body that monitors the application and delivery of the University's Ethics Review Procedure across the University.

What if something goes wrong and I wish to complain about the research?

If you are not satisfied with the way that you have been treated by the researcher, you can raise a complaint with the researcher's supervisors (details below). If you then feel that your complaint has not been handled to your satisfaction, you can contact the Dean of the Management School (details on consent form) who will escalate the complaint through the appropriate channels. If your complaint relates to how your personal data has been handled, you can find information about how to raise a complaint in the University's Privacy Notice: https://www.sheffield.ac.uk/govern/data-protection/privacy/general. You have the right to contact the Data Controller (the University of Sheffield) or the Information Commissioner's Office if you have any complaints about the use of your personal information within the research.

If you wish to obtain further information about this project, please contact:

Laura Bennett, Lead Researcher, libennett1@sheffield.ac.uk Professor Tim Vorley, PhD Supervisor, tim.vorley@sheffield.ac.uk Dr Chay Brooks, PhD Supervisor, c.brooks@sheffield.ac.uk

Will I be recorded, and how will the recorded media be used?

The audio recordings of the interviews made during this research will be used only for analysis. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

You will be given a copy of this information sheet, and of the signed consent form, to keep.

Appendix 4: Consent form

Entrepreneurship & Regional Economic Development Research Consent Form

Please tick the appropriate boxes	Yes	No
Taking Part in the Project		
I have read and understood the project information sheet dated 10/12/2018 and the project has		
been fully explained to me. (If you answer No to this question, please do not complete this		
consent form until you are fully aware of what your participation in the project will mean.)		
I have been given the opportunity to ask questions about the project.		
I agree to take part in the project. I understand that taking part in the project will include participating in an interview conducted by the Lead Researcher.		
This interview will be recorded (audio only) and transcribed by the Lead Researcher. I give my permission for this interview to be recorded, and I understand that I can withdraw my consent to be recorded during the interview.		
I understand that my taking part is voluntary and that I can withdraw from the study at any time; I		
do not have to give any reasons for why I no longer want to take part and there will be no adverse		
consequences if I choose to withdraw.		
How my information will be used during and after the project		
I understand my personal details such as name, phone number, address and email address etc. will not be revealed to people outside the project.		
I understand and agree that my words may be quoted in publications, reports, web pages, and		
other research outputs. I understand that I will not be named in these outputs unless I specifically request this.		
I understand and agree that other authorised researchers will have access to this data only if they		
agree to preserve the confidentiality of the information as requested in this form.		
I understand and agree that other authorised researchers may use my data in publications,		
reports, web pages, and other research outputs, only if they agree to preserve the confidentiality		
of the information as requested in this form.		
So that the information you provide can be used legally by the researchers		
I agree to assign the copyright I hold in any materials generated as part of this project to The University of Sheffield.		

Name of participant [printed]	Signature	Date	
Name of Researcher [printed]	Signature	Date	

Project contact details for further information:

Laura Bennett, Lead Researcher, libennett1@sheffield.ac.uk Professor Tim Vorley, PhD Supervisor, tim.vorley@sheffield.ac.uk Dr Chay Brooks, PhD Supervisor, c.brooks@sheffield.ac.uk

Appendix 5: Excerpt from a transcription (entrepreneur)

Laura: Do you think there's a kind of general understanding in Bristol over what that ecosystem looks like?

Stephen: No, I don't think so, I think it looks different for different people, I think people interpret it in different ways, and it depends how tightly you bind yourself to it, frankly. It can be something you just dip in and out of.

Laura: When you need something?

Stephen: Yeh exactly.

Laura: Thinking about to when you started out or even before you fully started, do you think entrepreneurship has changed much in Bristol? You've been working in it for quite a while now with your work at the [redacted]...

Stephen: Yeh that's true. I think it has. I think we're the beneficiary of a lot of changes that happened around 2010, so [Accelerator] I think for example, RM's impact, I mean you don't want to create a personality cult around someone but the people that were involved in setting up [Incubator] and [Accelerator], and the ecosystem around it, that ecosystem is directly what we've been involved with, and that just wasn't there 15 years ago.

Laura: So you hit the market at the right time?

Stephen: We hit that particular ecosystem that was established about ten years ago, so you can directly ascribe our existence to that.

Laura: Amazing, I wonder what it would be like if you were starting out now.

Stephen: Yeh exactly, I'm sure everything would... it would look like everything's been there forever whereas from my perspective... it still does, but weirdly enough in my enterprise role, I was, I saw all the founding documents because I had access to the intranet, so I was like "oh that wasn't that long ago." So, I guess I had a perspective as to what that actually university-led component of the ecosystem looked like before, and it didn't look like anything that I saw.

Appendix 6: Excerpt from a transcription (stakeholder)

Laura: And you live in Bath, right?

Shaun: No, I live in Bristol. I would say in reality that there's not really one ecosystem, it's two ecosystems, and no one in Bristol cares, they're fine with it, everyone in Bath hates Bristol and there's this weird... but that's a natural, when one place is bigger than the other. So when we do roundtables in Bristol, no one talks about Bath, I've never ever done a roundtable in Bath where it hasn't gone into a conversation about Bristol. It's just one of those things. So, there's lots of that sort of, and the same with, there's actually not that much cross-over if you're based up in [coworking space], out of the city centre, people don't travel between the two very much, so we have a breakfast at [coworking space] tomorrow morning, the audience for that will be completely different than if we did it at [incubator]. And it's just... people don't travel, even though it's 20 minutes, people just don't.

Laura: But in terms of, so within an area that people might travel to, do you think that people know what the ecosystem is?

Shaun: I think if you're a startup founder or you work in a startup, you probably don't think in those terms, I think it's a very economic development thing to think of it that way. And it's... they just think they've got jobs and they set up businesses and there's other people that set up businesses, it's a weird... I try to stop myself saying sector and sub-sector because that's, in my head, a super public sector thing to say. I don't think they think... they probably think in terms of the markets, rather than, you know, if you've got someone like [company name] who are trying to do financial services, next to someone like [company name], who are an IoT business, they're both startups, they've both raised money, they have similar challenges and journeys, but they think of themselves in different industries, because they are. I think outside of the people whose job it is to look after a cluster, I doubt anybody thinks about it.

Laura: Is there a difference between an ecosystem and a cluster?

Shaun: I think cluster's a slightly more public sector way of talking about it. I tend to say ecosystem when I'm talking to businesses, and cluster when I'm talking to other cluster people.

Laura: Where do you think the word ecosystem came from? Or when did you start using it?

Shaun: A while ago, but it's a natural... everyone knows what an ecosystem is so it's an obvious, and it gives you that level of depth and complexity that you can understand, whereas cluster, you do but it does sound like it's come from a report somewhere.

Appendix 7: Coding architecture for NVivo

Name	Description
1. Boundaries	
Ecosystem boundaries	Code content related to the conceptual boundaries of the ecosystem. - Who is included in the ecosystem, "insiders", those in the know. - Who is excluded from the ecosystem, "outsiders", outliers. - Where is the "front door" to the ecosystem, is it easy to access? - Note: diversity and inclusion related to gender, race, or socio-economic
Geographic boundaries	 background is coded separately. Code content related to the geographic boundaries of the ecosystem. How interviewees describe the geography, e.g., Bristol & Bath, Bristol & the region, the four local authorities, West of England etc. Where resources are located within the ecosystem geographically. Connections outside of the regional area e.g., to London or elsewhere.
2. Connections between	
Collaboration between organisations	Code content related to collaboration between organisations. - Intended collaborations. - Actual collaborations. - Collaborations could mean working jointly on projects, forming partnerships, or sharing information.
Lack of collaboration between organisations	Code content related to a lack of collaboration between organisations. - Examples of organisations working in silos, or where the entrepreneurial ecosystem is disjointed. - Overtly and deliberately not collaborating. - Unintentionally not collaborating.
TBBN	Code content related to TBBN (The Bristol and Bath Network).
3. Connections between	
Bad actors	 Code content related to "bad actors" in the ecosystem. Could be individuals or organisations who are referred to in a negative way. Incidences where "bad actors" don't abide by the cultural norms of the ecosystem.
Community	Code content related to community. - Feeling a sense of community / belonging to a community. - The benefits of community. - Note: Creating / curating a community comes under Ecosystem Enablers' activities
Events	Code content related to organised events. - Events could be opportunities to learn something (e.g., training or listening to a speaker) or business networking events. - Note: an event is generally more "formal" than a meetup.
Introductions	Code content related to introductions. - Forging introductions (people are introduced deliberately). - Serendipitous introductions (people meeting at an event).
Meetups	Code content related to meetups. - People coming together who have similar interests. - Objective usually to network and socialise, not necessarily 'learn'. - Note: a meetup is generally more "informal" than an event.

Networks	Code content related to networks.
	- References to formal networks (e.g., a paid business network).
	- References to informal networks (e.g., longstanding relationships &
	friendships).
	- Note: networking opportunities should be coded under Events or Meetups.
4. Ecosystem Develop	ment Work
Access to	Code content related to people being able to access information.
information	- Sharing knowledge within the ecosystem to benefit entrepreneurs.
	- Dissemination of information within the ecosystem to ensure it functions.
Ecosystem	Code content related to ecosystem maintenance / long term sustainability.
maintenance	- Examples of the ecosystem being maintained / existing over the years.
	- References to who does this Ecosystem Development Work: past, present,
	and future.
	- References to cycles within and/or the self-sustainability of the ecosystem
	- References to the past and/or future of the ecosystem.
Giving back	Code content related to anyone "giving back" to entrepreneurs or the
	ecosystem.
	- This could be giving time, advice, mentorship.
	- References to individuals who go out of their way to support others.
	- Examples of pro bono support or voluntary work to support the
	ecosystem.
Measuring impact	Code content related to measuring impact.
	- How impact is measured (or not) by organisations and individuals.
	- How the value of Ecosystem Development Work is articulated.
Trust and impartiality	Code content related to trust and impartiality.
	- References to the importance of trust (individuals and organisations).
	- References to the importance of impartiality and neutrality (individuals
	and organisations.
5. Ecosystem Enablers	
Activities	Code content related to the activities of Ecosystem Enablers
	- For example: making connections, running events, responding to
	entrepreneurs' needs, creating networks etc.
Attributes	Code content related to how Ecosystem Enablers are described
	- For example: their personality traits, their experience, their backgrounds
	etc.
Key individuals	Code content related to key individuals who are described as Ecosystem
	Enablers
Motivations	- Individuals past and present who are named in relation to the ecosystem.
IVIOLIVATIONS	Code content related to what motivates Ecosystem Enablers
	- For example: passionate about place, helping others, their satisfaction in
C Florents of the co	Ecosystem Development Work.
6. Elements of the eco	Code content related to accelerators.
Accelerator	
	- Interviewees' descriptions, experiences, perceptions of accelerator
[Redacted org name]	programmes. Code content related to [redacted org name].
[nedacted org name]	
Incubator	- Any references to [redacted org name]. Code content related to incubators.
Incubator	
Invoctment	 Interviewees' descriptions, experiences, perceptions of incubators. Code content related to investment.
Investment	- Entrepreneurs' accessing or raising investment.
	- FOUR ENTERPRIES ACCESSING OF FAISING INVESTMENT

	- References to investors: funds, angels, VCs, etc.
Mentors & Coaches	Code content related to mentors, coaches, and Non-Exec Directors.
& NEDs	- Both informal and formal arrangements.
Other business	Code content related to other business support (i.e., not accelerators or
support	incubators or [redacted org name])
	- Examples might be the Chamber of Commerce, public sector support,
	private sector programmes etc.
Professional Services	Code content related to Professional Services (e.g., banks, accountancy, legals
	etc).
	- What support they offer to entrepreneurs.
	- What their role is in the ecosystem.
Public Sector	Code content related to the public sector.
	- References to the city council, WECA, the LEP, national government,
	policy, and policymakers.
Talent recruitment	Code content related to recruiting talent.
	- References to accessing and finding talent, hiring, the regional labour
	market etc.
Universities	Code content related to the local and regional universities.
	- References to their role in the ecosystem, activities undertaken to support
	entrepreneurs etc.
7. Entrepreneurs	
Ambition	Code content related to entrepreneurs' ambitions.
	- References to future plans, company growth, or long-term ambitions for
	the company.
Business support	Code content related to entrepreneurs' accessing business support
	- Of all types, e.g., accelerator, incubator, other support programme.
	- Why they chose to access support and how.
Motivation for	Code content related to entrepreneurs' motivations for starting a business.
starting a business	- References to the drivers for their entrepreneurial ambitions.
Participation	Code content related to participation (or lack of it) in the ecosystem.
	- References to attending events (or not).
Peer support	Code content related to peer support.
'''	- References to entrepreneurs seeking support (or not) from other
	entrepreneurs.
Perceptions	Code content related to the entrepreneurs' perception and understanding of
·	the ecosystem.
	- Both positive and negative.
Previous experience	Code content related to previous experience.
	- References to work and experiences before starting this particular
	company.
8. Equality, Diversity,	
BAME diversity &	Code content related to BAME diversity & inclusion.
inclusion	- References to BAME individuals, groups, initiatives, or organisations aimed
	at promoting BAME inclusion.
Socio-economic	Code content related to socio-economic inclusion (or lack thereof).
inclusion	- References to economic disparities, inclusive growth, exclusion due to
	socio-economic reasons.
Gender diversity &	Code content related to gender diversity & inclusion.
inclusion	- References to groups, initiatives, or organisations aimed specifically at
	supporting women and redressing the gender imbalances within tech and
	/ or the ecosystem.
	,

9. Funding Ecosystem	Activities
Funding for Accelerators & Incubators	Code content related to how accelerators and incubators are funded. - Different business models, accessing loans & grants etc.
Paid Ecosystem Development Work	Code content related to Ecosystem Development Work that is paid - For example: someone is paid to do the types of activities that form Ecosystem Development Work, and/or organisations that recognise that this work needs to be paid.
Private sector sponsorship	Code content related to private sector sponsorship (or lack of it). - For example, private sector sponsorship of events or activities that support the ecosystem.
Public sector funding	Code content related to public sector funding (or lack of it). References to the public sector funding any activities that support the ecosystem, or references to the role (actual or potential) of the public sector in financially supporting the ecosystem.
Unpaid Ecosystem Development Work	Code content related to Ecosystem Development Work that is unpaid. - References to individuals or organisations doing Ecosystem Development Work voluntarily, and the drawbacks or difficulties of this work being unpaid.
10. Narratives	
Bristol + place-based narratives	 Code content related to Bristol and place-based narratives. Examples where the interviewee describes Bristol: its attributes, its identity, its brand. References to the importance of place-making and/or how "place" is important to the interviewee.
Ecosystem narratives	Code content related to the concept of ecosystem. - Including references to the meaning of the word, how the interviewee understands the concept, what the ecosystem is comprised of in their view etc.
Governance of Ecosystem	Code content related to the governance of the ecosystem. - References to leadership within the ecosystem (or lack thereof), hierarchies, collective governance, self-appointed leaders, control, influence etc.
Sectoral narratives	Code content related to industry sectors. - For instance, tech, creative, digital, life sciences etc. Include references to scaleups and startups.
11. Spaces	
Availability of space	Code content related to the availability of space (or lack thereof). - References to businesses searching for suitable office space.
Coworking spaces	Code content related to coworking spaces. - References to physical infrastructure where entrepreneurship takes place, including commercial coworking and incubators.
Neutral & convening spaces	Code content related to neutral spaces where people can convene. References to any space which is open and accessible and neutral, where different types of individuals and organisations can come together, or references to that type of space being important.