

CRANFIELD UNIVERSITY

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Sustainable Entrepreneurship as a Community of Practice

School of Management  
PhD Part-time

PhD  
Academic Year: 2014 - 2022

Supervisor: Dr Richard Adams  
Associate supervisor: Prof Hugh Wilson  
Former associate supervisor: Prof Emma Macdonald  
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## ABSTRACT

Sustainable entrepreneurship literature at the micro-level of individual enterprises identifies several issues hampering their growth, such as lack of funding and other resources, and psychological and/or geographical isolation. Macro-level research identifies attempts at supportive policy, such as new enterprise funding and incubation hubs; however, sustainable entrepreneurs often find these resources inaccessible or insufficient. There is very limited research, however, examining the impact of the meso-level context of sustainable entrepreneurs, and whether this level can help address their challenges. This study's motivating objective is therefore: *To examine the phenomenon of sustainable entrepreneurship at the meso-level, in order to better understand how it can be enabled.*

Initial field immersion in an EU-funded research project led abductively to the observation that actors in the sustainable entrepreneurship field appear to interact at the meso-level to address issues collaboratively. This led to the overarching research question: *Does a community of practice form around sustainable entrepreneurship, and if so, what does it look like?* Three more specific questions were: *RQ1: What drives the formation of a sustainable entrepreneurship community of practice? RQ2: What shared practices does the sustainable entrepreneurship community of practice enact? And RQ3: What outcomes arise from these practices, and for whom?* These questions were explored through analysis of data-collection episodes over a three-year period that the author attended as a participant observer alongside sustainable entrepreneurs and allied stakeholders.

A key finding is that a sustainable-entrepreneurship community of practice exists: actors with a shared commitment to the domain of sustainable entrepreneurship collaborate as part of a community to solve problems by sharing practice and learning from one another. Four drivers for this community of practice are identified: perceived isolation, a lack of resources, reduced government, and prosocial motivation. The community participates in four high-level practices: network building, resource sharing, evolving business models, and re-shaping the sustainable entrepreneurship infrastructure. Four categories of outcome from the community of practice emerge: individual empowerment, enterprise scaling and proliferating, civil society strengthening, and mainstreaming sustainable entrepreneurship. Collectively, these practices can reduce some of the issues facing sustainable entrepreneurs, such as limited funding and resources.

This thesis contributes to communities of practice theory by demonstrating that the feature of situated learning (Lave and Wenger, 2011) via the four shared practices creates social capital, highlighted in the entrepreneurship literature as a key factor for success (Honig and Davidsson, 2003). In this way, this thesis provides a novel contribution to theory by indicating how participation in the community of practice can help sustainable entrepreneurs address the issues identified and thereby develop, scale and replicate triple-bottom-line business models. They do so, not just solving problems but supporting the wider multistakeholder members to maximise opportunities and positively influence the societal and political environment for SE. It also shows how situated learning about the domain more widely is both a motivation and desired outcome of CoP

membership. Through the social capital generated, this community can influence the macro-level and thereby further mainstream the phenomenon of sustainable entrepreneurship.

Keywords:

sustainability; sustainable entrepreneurship; entrepreneurship; social entrepreneurship; environmental entrepreneurship; communities of practice





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## LIST OF ABBREVIATIONS

ABIS	The Academy of Business in Society
AGM	Annual General Meeting
BAME	Black, Asian and Minority Ethnic groups
BLM	Black Lives Matter movement
CBS	Copenhagen Business School
CoP	Community of practice
EU	European Union
EU-InnovatE	End User-Integration, Innovation and Entrepreneurship
HRH	His Royal Highness
IPCC	Intergovernmental Panel on Climate Change
NGOs	Non-governmental organisations
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics
RO	Research objective
RQ	Research question
SCP/RAC	Regional Activity Centre for Sustainable Consumption and Production
SDGs	Sustainable Development Goals (United Nations)
SE	Sustainable entrepreneurship
TUM	Technical University Munich
UK	United Kingdom
UN	United Nations
UNEP-DTIE	United National Environment Programme Division of Technology, Industry and Economics
UNEP/MAP	United Nations Environment Programme Mediterranean Action Plan
UNIDO	United Nations Industrial Development Organisations
USA	United States of America
WEF	World Economic Forum
WP	Work Package



## 1 INTRODUCTION

This thesis adds to what is known about the phenomenon of sustainable entrepreneurship (SE), that is, entrepreneurship which has sustainability as a goal (as reviewed in detail in Chapter 3). Some scholars, notably Hoogendoorn et al. (2019), have discussed the traits of sustainable entrepreneurs and the issues facing them that affect the success of their ventures. Others have discussed the wider context of sustainable entrepreneurship, such as economic mechanisms and government support such as green policies, which may support or hinder these entrepreneurs (Rogge and Ohnesorge, 2021).

While both these perspectives, the individual and the contextual, are invaluable to our understanding of SE, some issues remain unresolved. For example, sustainable entrepreneurs may experience a sense of isolation as seen in the wider entrepreneurship literature (Shepherd and Haynie, 2009; Shepherd, 2019), or a lack of awareness of resources such as funding that are available to further develop their enterprises (Hoogendoorn et al., 2019). My research looks at a group of SE stakeholders and suggests a novel means by which they can and do co-create solutions to SE issues, rather than by individual characteristics or policy alone.

More specifically, this thesis considers a group of SE stakeholders as a 'community of practice' (CoP) (Lave and Wenger, 1991). In doing so, I demonstrate that this lens clarifies how entrepreneurs and other stakeholders can collectively resolve issues identify by both practitioners and academics. For example, a key finding of my research is that supportive policy may exist, but

individuals value being part of a community in order to learn about and access this support (Wenger, 2011). For example, if they are unaware of a funding scheme or how best to complete application forms, fellow community members provide support, advice and direction.

The next section explains my interest in SE and why I subsequently chose to explore SE as a CoP, using an EU-funded research project called EU-InnovatE (further explained in Chapter 2). This project brought together sustainable entrepreneurs and allied stakeholders, as a “window” to gain insights from the wider SE community.

This introduction then comprises sections as follows. I begin by developing a *motivating objective* (section 1.1), an *overarching research question* (section 1.2) and three more specific *research questions* (section 1.3). I then discuss the economic, environmental and societal context driving a move to greater sustainability (section 1.4), the phenomenon of SE which has emerged from academic schools of thought regarding entrepreneurship in the prevalent economic system of capitalism (section 1.5), and the specific challenges of SE (section 1.6). The chapter then provides a detailed description of the structure and chapters of the thesis (section 1.7) before its conclusion (section 1.8).

## **1.1 Motivating Objective**

My interest is in the potential of entrepreneurship to support a move to a more sustainable society. That is, how SE can be fostered to make long-term positive impacts, both socially and environmentally. The need for sustainable change has arguably never been greater. The demands of depleted natural resources,

climate change and pollution (Brundtland Commission, 1987; Intergovernmental Panel on Climate Change (IPCC), 2021) are areas of pressing concern for governments, business leaders and society. Together with increasing social inequalities both between the Global North and Global South and within countries, these concerns drive calls to develop a more environmental and socially equitable approach to business and society.

I discuss the phenomenon of SE further in my literature review in Chapter 3 (specifically section 3.6). This thesis considers the phenomenon of SE, as defined for sustainable entrepreneurs by Schaltegger and Wagner (2011, p.223):

*“Sustainable entrepreneurs destroy existing conventional production methods, products, market structures and consumption patterns, and replace them with superior environmental and social products and services.”*

Following the work of Johnson and Schaltegger (2019), who apply a multilevel perspective to SE (Chapter 3, section 3.8), I specifically consider the meso-level of SE. Johnson and Schaltegger (2019) state that the macro-level refers to political, social and economic factors, while the micro-level refers to individual entrepreneurs and other stakeholders in SE. The meso-level refers to space which connects the two and the actors within it, often via communities or organisations as “networks or social groups” (Ferraro et al., 2015). Relatedly, in an influential work on how transitions of socio-technical systems towards sustainability occur, Geels (2011) provides a framework for transitions in the ‘macro-level’ *socio-technical landscape*, through the *regime* at the ‘meso-level’. engaging *individuals* and individual firms at the ‘micro-level’.

I identify a gap in the SE literature at the meso-level, where individuals collaborate to solve their business issues and society's problems, and where insights can be derived as to how to better enable SE. In many countries, government macro-level initiatives and policies exist relating to green business, socially motivated business and/or entrepreneurship in general, albeit typically in a disjointed way. Research may be commissioned by governments to look at how best to make such policy more effective; an example is the EU-InnovatE project discussed in Chapter 2, which is also described in the EU-InnovatE report (2017) and discussed by Watson et al. (2022). The individual characteristics of those involved with SE at the micro-level are another key focus of much of the SE literature. However, the meso-level is as yet less explored. Understanding how individual entrepreneurs and allied stakeholders create joint solutions to sustainability issues is vital to developing greater sustainability via entrepreneurship. There is a lack of insight within the extant literature detailing such collaboration by groups at the meso-level (Johnson and Schaltegger, 2019). Understanding sustainable entrepreneurship at the meso level, then, can contribute to a fuller understanding of the emerging phenomenon of SE and how it can help society to respond to the contexts of the global economy, the environment and wider society (Schaltegger and Wagner, 2011).

This critical gap in the literature was identified somewhat serendipitously. Early in the thesis process, I was involved as a participant observer (DeWalt and DeWalt, 2011) in the EU-InnovatE project detailed in Chapter 2. I became very aware of what appeared to be a collaborative practitioner approach to problem-solving in SE. In addition to formal project outputs, participants appeared to be

realising a range of additional benefits through their interactions and shared practices. These practices triggered the idea that the behaviours within these groups indicated the presence of meso-level community structures and practices. For example, it appeared that individuals in SE were reaching out for help to allied stakeholders with a clear commitment to sustainability, who in turn had a strong prosocial will to help. In this way, these behaviours appeared more collaborative than those I had previously been exposed to in general business practice. I concluded *abductively* (Peirce, 1877; Campos, 2011; McAuliffe, 2015), that is based on general inferences gained, therefore, that the meso-level may hold potential for new insights for the phenomenon of SE and that this might be viewed through this thesis project.

My motivating objective for this thesis can therefore be stated as:

*To examine the phenomenon of sustainable entrepreneurship at the meso-level, in order to better understand how it can be enabled.*

I next set out an overarching research question (section 1.2) and three more specific research questions (section 1.3) which result from this motivating objective.

## **1.2 Overarching Research Question**

Abductive reasoning then led me to identify within meso-level literature on collaborations that a community of practice (CoP) (Lave, 1991; Lave and Wenger, 1991) would be an appropriate theoretical lens. I considered other meso-level concepts for collaboration such as networks (discussed in Chapter 4), but on reflection judged that what I was observing in the EU-InnovatE project most

closely met the definition of a CoP (Lave, 1991; Lave and Wenger, 1991; Wenger and Wenger-Trayner, 2015); this judgement is more formally examined in this work's findings.

The early work of Lave (1991) and Lave and Wenger (1991) included a focus on how learning took place within such a community, that is, *situated learning* via collaboration. This is helpful to this thesis in considering how the members of this community collaborate to build and share knowledge to address the grand challenges of sustainability (United Nations (UN), Sustainable Development Goals (SDGs), 2015). Based on the work of Lave (1991), Lave and Wenger (1991) and Wenger and Wenger-Trayner (2015) a working definition of a community of practice is that it:

- has a *domain* of interest
- is a *community*, whether formally or informally constituted
- and shares *practices* as a community.

According to Wenger and Wenger-Trayner (2015, p.2):

*A community of practice is not merely a community of interest—people who like certain kinds of movies, for instance. Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short, a shared practice.*

The communities-of-practice concept appeared to offer a promising perspective from which to generate new insights into the phenomenon of SE. In particular, a communities-of-practice lens was appropriate for revealing the interactions and



practices of individuals who share a commitment to a cause. The following overarching research question, then, guides this work.

*Does a community of practice form around sustainable entrepreneurship, and if so, what does it look like?*

This leads to three more specific questions, as I consider next.

### **1.3 The Research Questions**

As I embarked on my doctoral studies, I joined the Cranfield University team as part of the EU-InnovatE project (Chapter 2), researching entrepreneurship as an enabler for sustainability-oriented innovation. The motivation for this project was that innovation was needed to either innovate new products and services to solve sustainability issues, or to innovate new ways of business which reduce waste, pollution and resource consumption. Innovation was considered to be more rapid within sustainable enterprises than traditional, incumbent corporates. Entrepreneurship and innovation were thus viewed as closely linked within the project, and the project title of 'EU-InnovatE' was formed from "End User Innovation and Entrepreneurship". The Cranfield University team of which I was a member led on parts of Work Package (WP) 6 of that project, which was tasked with developing EU policy recommendations. These recommendations were to support sustainable innovation and entrepreneurship, with consideration of existing policy channels and tools, following the work of Audretsch et al. (2007a).

I participated in the project's Annual General Meetings (AGMs) and a variety of other data collection episodes to identify supportive government policy at the macro level, such as workshops and conferences and conducting interviews. Through this, I met and spoke with sustainable entrepreneurs and allied

stakeholders with an interest in SE. The individuals I spoke with held varied experiences and roles, however all shared the motivation I held for conducting my research: that is, they were committed to furthering SE. Over a period of time as I worked on the project, read the literature, and engaged with research participants, certain questions and ideas were raised in my mind. These were around the possible contribution to knowledge from observing these participants collectively as a community with a willingness to share so as to achieve individual enterprise and joint goals.

This reflects the abductive approach to research (Peirce, 1877; Campos, 2011; McAuliffe, 2015). This is often described as “Inference to the Best Explanation” but is maybe better described following McAuliffe (2015) as a pragmatic approach which makes assumptions based on perception and experience in order to derive insights and logical conclusions. As I discuss further in Chapter 5, the abductive approach underpinned my subsequent empirical work. As I also conducted my academic literature research, it became apparent to me therefore, from their use of shared terms and their networks overlapping with mutual contacts, that these individuals were part of a wider community, and more than that, with very clear shared practices beyond the organised data collections episodes of WP6, that appeared to match the definition of a CoP.

I began with a working assumption, therefore, that it was appropriate to consider such a group of SE stakeholders as a CoP, as defined by Wenger and Wenger-Trayner (2015). I aimed to explore how a SE CoP helps us better understand the phenomenon of sustainable entrepreneurship, by surfacing the practices shared and the resulting situated learning (Lave, 1991; Lave and Wenger, 1991).

The Brundtland Commission (1987) first coined the term “sustainable development” and in subsequent years, it has been widely acknowledged that there is an urgent need to transition to greater sustainability in business and our lifestyles (IPCC, 2021). The potential Schumpeterian (1942) role of entrepreneurship in this transition is often cited; for example, Schaltegger and Wagner (2011, p.223) state:

*“For sustainability, entrepreneurship is highly important because the transformation towards a sustainable future urgently requires the creative destruction of unsustainable patterns of producing, consuming, and living.”*

I therefore make the case for entrepreneurship to drive greater sustainability in business and society. Sustainable entrepreneurs often face difficulties in proliferating and/or scaling their enterprises, and Schaltegger et al. (2018) state that networks or collaboration at the meso-level can assist individual sustainable entrepreneurs. Johnson and Schaltegger (2019) go further to look at the levels and indicate less activity at the meso-level. I assert that a SE CoP can be a useful support for such a transition at the meso-level. I thereby make the case for the potential of a CoP to drive greater SE in business and society. In order to explore this adequately, this thesis addresses the following research questions:

*RQ1: What drives the formation of a sustainable entrepreneurship community of practice?*

That is, what are the factors that motivate individuals with an interest in sustainability to come together and what are the issues that they look to resolve together? If drivers are common to different participants coming together at

different events, and denote a wish to develop a “*shared repertoire of resources*” (Wenger and Wenger-Trayner, 2015, p.2), this might support the claim that a *community of practice has formed around sustainable entrepreneurship*. This would contribute to answering the overarching research question posed in this thesis.

*RQ2: What shared practices does the sustainable entrepreneurship community of practice enact?*

That is, what happens within the community of practice? What do members do? Do they interact informally with one another in a situated learning environment? These practices are the means by which individuals develop a “shared repertoire of resources” which help address the challenges identified in Table 3-1 in Chapter 3 at section 3.7. If such challenges can be resolved through membership of a SE CoP, this would be a novel use of the CoP lens to better understand SE at the meso-level. This study would also contribute to theory, both the SE and the CoP literatures, and additionally would provide valuable practitioner recommendations for the field of SE.

*RQ3: What outcomes arise from these practices, and for whom?*

That is, what results from these practices, and how do these impacts contribute beyond the CoP: to the individuals themselves, their enterprises, the wider field of SE and thereby to the phenomenon? A SE CoP has the potential to provide far-reaching positive impacts.

To summarise, in this thesis, I explore what is distinctive in a specifically SE CoP and what this theoretical lens adds to our understanding of the SE phenomenon

by way of explanation. I introduce the context to this phenomenon in the next two sections, before considering the challenges that sustainable entrepreneurs face in more detail in section 1.6.

#### **1.4 The Economic, Environmental and Societal Context for Sustainable Entrepreneurship**

There have long been calls for changes to the current ways of living to protect the environment and the global population. For a number of years now, economists have been reflecting these considerations in their scholarship. Stiglitz et al. (2009), for example, called for an end to considering increased Gross Domestic Product (GDP) as a measure of economic success, as it ignores environmental costs and citizen wellbeing, due to pollution and other undesirable consequences of traditional capitalism. Raworth (2017) describes a middle ground between meeting the *social foundation*, that is meeting the needs of the entire global population, while respecting the limits of the environment, that is, the *ecological ceiling*. Raworth (2017) asserts that when setting prices, both should be considered to ensure that essential products are not priced below their environmental cost yet not above societal affordability either.

The global Covid19 coronavirus pandemic of 2020 has galvanised the call for world leaders to work together to plan for economic recovery. Some see this global crisis as an opportunity to reform aspects of society and *reset capitalism* for the benefit of all people and the planet in order to *build back better*. These calls have been led by the World Economic Forum (WEF), an international NGO founded in 1971, whose mission is "*committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape*

*global, regional, and industry agendas*" ([www.weforum.org](http://www.weforum.org)). The founder, Klaus Schwab, in August 2020 announced with HRH Prince Charles an initiative called the *Great Reset*, at the same time launching his co-authored book of the same name (Schwab and Malleret, 2020). The initiative and book call on world leaders to cooperate to revisit every aspect of the economy and society to avert financial and environmental collapse. At the time of writing, COP26 (2021) has brought climate issues to the fore also.

It is widely accepted that the global economic crisis caused by the Covid-19 pandemic will be followed by an economic recovery (OECD, 2021), but it has been suggested that this may also provide an opportunity for wholesale change (Barbier, 2020). Societal concern about climate change has been mounting in recent years, epitomised in 2019 by Greta Thunberg's school strikes and international lobbying (Thunberg, 2019), and the race equality movement worldwide has been further catalysed by the death of George Floyd in the USA, with many calling for change to end systemic racism (Feagin, 2013; Carmichael and Hamilton, 1967). The Royal College of General Practitioners in the UK directly linked issues of race with the disproportionate number of Covid19 deaths from BAME (Black, Asian and Minority Ethnic groups; Cambridge English Dictionary) communities and avowed to work to end all inequalities such as income, not just health inequality (Marshall, 2020).

The Covid-19 pandemic itself has spotlighted other societal issues, in addition to income inequality, in the developed world, such as a lack of community engagement, particularly for the elderly, poor and disabled, creating loneliness even prior to the pandemic requiring physical self-isolation for many (ONS,

January 2020). The call for volunteers to deliver food and medication to the elderly and those self-isolating during the pandemic lockdowns is a specific action, but calls have also followed for a greater sense of community in many countries to deal with a multitude of societal issues.

Current society in economically developed nations seems not to be succeeding in creating security and stability as growing numbers of citizens report mental health issues (Mind, 2021), regardless of age, gender, sex, race etc. While there is much discussion as to whether prevalence of mental illness is indeed increasing or whether self-reporting and social acceptance has increased the reporting and treatment of it (Busfield, 2012), the fact remains that in developed nations the demand for and cost of mental health services is increasing, and governments are looking to families and the community to support to alleviate pressure on government-provided mental health services.

There appears to be a need for society to deliver greater mental health stability via social activities, relying on the importance of communities to alleviate mental health problems and psychiatrists are advocating this, calling it “social prescribing” (The Royal Institute of Psychiatrists, 2021). There is much talk of *trait resilience* as a counterbalance to the current mental health crisis (Hu et al., 2015). This echoes discussions of *stoic determination to succeed against the odds* (McClelland, 1987), which is often highlighted as a key trait of successful entrepreneurs. It might at first glance seem that entrepreneurs have some of the traits to maintain their own mental wellbeing, and as a community may well also be supportive of one another’s mental wellbeing.

Hudson et al. (2007) explored social cohesion in diverse communities in the UK, linking it explicitly to poverty and financial deprivation. Access to economic resources via the community is seen as a means of addressing issues of race inequality and societal fractures, and this demonstrates the link again between the major issues facing much of the world in 2020; those of societal breakdown, increasing income disparity, race inequality and limited access to finite natural, human and financial resources. In developing countries, economic inequality further compounds the negative impact of the pandemic on those living in poverty and makes more urgent the need for change.

This thesis does not aim to demonstrate a correlation between a possible solution for all these issues and a SE CoP. I am interested though, in exploring the possibility that a community of sustainable entrepreneurs and other SE stakeholders might support one another and at the same time contribute in some way to address some of these very complex issues of managing social needs, as they manifest in both the Global North and South, and the needs of the planet concurrently.

The intersection of the populist movements around race equality, climate change and social injustice is seen in the popular slogans of the global climate justice movement: "*System change not climate change!*" and "*Climate justice is social justice!*". Environmental groups such as Greenpeace (2020) and Friends of the Earth (2020) have also made public commitments in support of the Black Lives Matters movement (BLM, 2020) dedicated to dismantling racism, and discussing how to build a more equal and climate-friendly society post-pandemic - by race, gender and class.



It seems there has never been a more pressing case for sustainability, to prioritise the needs of society's citizens alongside the needs of the planet and the needs of business, the need for radical change. A recurring discussion in delivering this sustainability is however via community and a renewed focus on civil society to deliver change. This discussion is summarised well by Schroedel (2019) in a CitizenLab infographic and concludes that some combination of radical and incremental changes might be possible and indeed desirable to effect progress.

Milton Friedman (1970) espoused a still oft-cited capitalist economic viewpoint, that is, the single purpose of business is to make a profit, and this should be the primary, or only, consideration when making business decisions. He asserted that the purpose of business was to be as efficient with capital as possible, in order to support economic growth. However, Drucker (1992) discussed in 1992 the post-capitalist society that might exist in 2020, based on Schumpeterian disruption (Schumpeter, 1942). He asserted that knowledge would have become the key resource for successful business. He also states social responsibility for citizens and the planet would be growing in importance for businesses. Drucker (1992) sees the traditional economic theory, as espoused by Milton Friedman (1970), that is, profit as a singular goal, as being far too narrow in modern society. The triple goals of supporting the needs of profit, people and planet (the 3 Ps) directly reflect the aims of sustainable business (Elkington, 1997), and Drucker (1992) states how organisations are part of society. It seems current events have crystallised and created urgency for some of the predicted changes needed in business: in terms of resource allocation and management; societal and

environmental goals being given equal priority to profit; equality in income, race, and gender, and other societal aspects.

This thesis contributes to this conversation by showing how knowledge can be acquired to assist entrepreneurs in their sustainable ventures. I continue by exploring the emerging phenomenon of SE.

## **1.5 An Introduction to Sustainable Entrepreneurship**

Sustainable entrepreneurship is a phenomenon attracting much interest, resulting from greater focus on the ecological and social problems arising from the depletion of finite resources in a world with increasing human demands, and the drive to address these via sustainable development (Brundtland Commission, 1987; Dean & McMullen, 2007; Shane and Venkataraman, 2000). SE thereby extends the social entrepreneurship literature by combining the ecological goals of green entrepreneurship with those of social entrepreneurship. Social entrepreneurship is commonly defined as *“the creation of organisations that address societal problems using innovative, business methods”*, according to Roundy and Bonnal (2017, p138).

As such, SE combines the dual goals of social entrepreneurship with those of “green” or environmental entrepreneurship to deliver on triple goals. These are commonly known as: *profit, people* and *planet* (the 3 Ps) according to Elkington (1997), who coined the term, *the triple bottom line*, to describe the triple goals of sustainable enterprises.

Sustainable entrepreneurship can therefore be defined as the phenomenon whereby:

*Sustainable entrepreneurs destroy existing conventional production methods, products, market structures and consumption patterns, and replace them with superior environmental and social products and services.*

(Schaltegger and Wagner, p.223)

This definition is further explained in Chapter 3. The development of SE as a separate phenomenon (Thompson et al., 2011) is also discussed in Chapter 3, comprising a literature review of the various relevant entrepreneurship streams.

## **1.6 Challenges in Sustainable Entrepreneurship Practice**

This section introduces some of the issues or challenges faced by sustainable entrepreneurs. A fuller discussion of these is seen at Chapter 3 at section 3.7.

Sustainable enterprises may find it difficult to achieve the triple bottom line of the 3 Ps (Elkington, 1997) as social enterprises struggle with dual or hybrid goals, as explored in the work of York and Venkataraman (2010). Often government and philanthropic support exist to provide advice and loans to support social enterprises for the benefit of the local community (Mullins et al., 2012). Sustainable enterprises can struggle to compete with larger incumbent businesses, having fewer resources and retained profits. They are therefore deemed high risk by many lenders, and yet if they have strong profit forecasts, they will struggle to access the support offered to social enterprises. Even when funding and other support is available, these may be aimed at specific categories of start-up enterprises, even in the sustainability field, such as a particular category of green energy production. Support criteria may also change, for

example, to shift focus from one aspect of green energy such as wind power, to another, such as solar power.

Sustainable entrepreneurs also experience an increased sense of personal risk relating to possible failure in their enterprises based in a lack of confidence in their business skills (Hoogendoorn et al., 2019). This is partly due to the complex stakeholder relationships resulting from an enterprise aiming to fulfil triple bottom line goals of people, profit and planet (Bacq et al., 2016; Hoogendoorn et al., 2019). Personal risk includes psychological risk to self-esteem, which is partly attributed to personal commitment of the entrepreneur to their enterprise, largely heightened by their personal commitment to sustainable values (Hoogendoorn et al., 2019).

Like other entrepreneurs, they may identify a problem, which they develop an innovation to address locally. However, as they are commonly more dispersed and their innovations more niche, they may not find resources and solutions to issues locally (Kletz and Cornuel, 2016). This is especially true where the emergence of innovative new business models (Schaltegger, 2002) means that traditional financial performance measures are no longer appropriate because the organisation has no financial assets and no profit-based goals, instead exchanging time, services or produce.

The challenges of isolation, sense of risk, access to funding and other resources are exacerbated by governments, which create siloed policies in separate departments to support business *or* the environment *or* education (Audretsch et al., 2007a). These policies all too often are not joined up, resulting in unintended

negative outcomes for SE, such as ineligibility for funding due to not meeting all criteria. In addition, sustainable products are often favoured by government “green” policy, such as incentives to encourage demand for electric cars, by providing car tax exemptions and grants to companies, to install charging points at residential properties free of charge to consumers (Department for Transport, UK Government, 2021). These could be seen as necessary yet insufficient green policies, on the one hand encouraging travel while creating zero emissions, but on the other, the energy required is still sourced from a national grid largely powered by fossil fuels in the UK. As such, the energy source is still deemed a “dirty” energy source. (While wind and solar renewable energy has continually increased in recent years, combined it still only made up “*12.3% as a percentage of capped gross final energy consumption using net calorific values*” in 2019 in the UK. The target for 2020 was 15% but the disruption caused by the Covid-19 pandemic means this progress data is not yet available. Oil and gas remain the largest energy sources in the UK (UK National Statistics, 2020)). The macro policy therefore does not ultimately achieve its aim of reforming the energy domain towards less pollution overall, as it simply diverts travel fuel to one which creates emissions earlier in the process. The policy is not yet all joined up and unintended negative consequences can ensue. For those committed to sustainability, they are very aware of these wider issues and are keen to contribute to resolution of grand challenges (SDGs, UN, 2015), not just “tinkering at the edges”.

Existing institutions, such as schools, are also tied to traditional goals such as formal qualifications of individuals to prepare them for conventional business and

banks demand profit projections for enterprises. The macro-level therefore is deficient in enabling innovation and entrepreneurship with sustainability at its fore and provides barriers rather than facilitating.

One stream of the traditional entrepreneurship literature has focused on networks and ecosystems as mechanisms for addressing the challenge of lack of support (Birley, 1985; Hildreth and Kimble, 2004; Spigel, 2017). The literature on specifically SE networks and ecosystems is sparse. However the entrepreneurship literature provides useful insights about how membership of networks and ecosystems assist the sharing of knowledge to support enterprise development and innovation. This is discussed further in Chapter 4. I thereby demonstrate how these existing streams of networks and ecosystems focus on the relationships between organisations, whereas the shared practices between individuals have received less attention to date. By focusing on these interpersonal activities and shared practices, this thesis contributes to the SE literature by demonstrating a means of cocreating solutions to common problems for all SE practitioners.

This introductory chapter next summarises the structure of this thesis.

## **1.7 Thesis Structure**

The structure of the thesis is as follows: Chapter 2 contextualises the empirical work of the current study by providing a summary of the EU-funded project titled EU-InnovatE Research Project and the preceding EU SPREAD project. The SPREAD project was designed to create future scenarios to help address the challenges of sustainability. The subsequent EU-InnovatE research project,

which was the locus of my three-year study, was designed to co-create policies to support sustainable innovation and entrepreneurship to address the challenges highlighted by those scenarios. Chapter 3 reviews the sustainable and associated entrepreneurship literature to better understand what is known and identify knowledge gaps. Chapter 4 reviews the communities of practice literature to develop a conceptual/analytic framework to help advance knowledge and understanding of SE. Chapter 5 details the methodology employed in this thesis. I was part of the work package 6 team for EU-InnovatE (Chapter 2), tasked with researching and formulating policy recommendations to support SE (EU-InnovatE, 2017). In observing participants in data collection episodes, I noted how they interacted within and beyond these research events, and abductively arrived at the communities of practice concept, and my research questions for this thesis. My data collection for this thesis therefore goes beyond the data collected for the EU-InnovatE project and this is explained in Chapter 5. Chapter 6 draws out the key insights from my research. Chapter 6.5 discusses these insights and how they relate to the literature reviewed to derive learning and develop our understanding of the field of SE. Chapter 6.5 concludes the thesis with limitations of this research, some key recommendations by stakeholder group and potential next steps for further research. Of particular note, is the potential for communities of practice (Lave and Wenger, 1991) such as this one to influence the macro-level (Johnson and Schaltegger, 2019) such as society via consumer behaviour, and the economy and policy, and potentially replace or advocate for supportive policy.

This introductory chapter proceeds by introducing the chapters of the thesis, introducing in turn the SE and CoP literature reviews (sections 1.7.1 and 1.7.2), the methodology (section 1.7.3), the findings (section 1.7.4) and the contributions of this thesis (section 1.7.5).

### **1.7.1 An Introduction to The Sustainable Entrepreneurship Literature**

Chapter 3 explores in depth the history of entrepreneurship and the evolution to SE via the other, associated entrepreneurs, such as green entrepreneurship, ecopreneurship, sustainopreneurship and social entrepreneurship. This economic paradigm shift (Kuhn, 1962), whereby value is recognised within business to not mean exclusively profit but also positive outcomes for the environment and people, is seen by some as a radical change. Others however see it as a natural evolution (Schroedel, 2019), with businesses and entrepreneurs responding to opportunities created in the economic environment (Sarango-Lalangui et al., 2018).

Chapter 3 also addresses the functional or action-focused and the processual literature streams into which entrepreneurship and sustainable entrepreneurship are often categorised. The functional or action-focused stream (Friedman, 1970; McClelland, 1987; Markman and Baron, 2003) focuses on the traits and actions of individual entrepreneurs whereas the processual stream focuses on the means through which successful enterprises are created and scaled (Audretsch et al., 2007a). The current work draws on both streams of literature, addressing both the attributes of successful sustainable entrepreneurs at the micro-level and the SE environment of policy, society and the economy within which SE operates.



The functional stream of entrepreneurship (Friedman, 1970; McClelland, 1987) and specifically functional SE literature (Markman and Baron, 2003) are relevant to this thesis as they discuss whether individuals require extra skills or resources to build capacity. Yet the processual stream of literature (Audretsch et al., 2007a; Hjorth et al., 2015) is also relevant. This stream demonstrates how individuals can work together to harness and combine individual traits to create new practices.

The SE literature draws from the wider entrepreneurship literature, which concentrates heavily at the micro-level on the attributes of successful entrepreneurs (Rauch and Frese, 2007). This mirrors the functional stream of entrepreneurship literature, which addresses how entrepreneurs respond to business opportunities. So, by extension in SE, the attributes of successful entrepreneurs balancing dual goals towards people and profits, or environmentalism and profits in hybrid enterprises are explored (Markman and Baron, 2003).

There is academic interest at the macro-level on the policy changes which could support entrepreneurship further (Audretsch et al, 2007a), and as COP26 brings sustainability to fore once more, in the potential of institutional changes within corporations known as “intrapreneurship” (Bulloch and Bonnici, 2021). This thesis focuses on SE and the innovations that may take place in smaller ventures rather than incumbents. Additionally, this thesis does not address the societal change through consumer nudging by government which could also increase sustainable living. I deem these beyond the scope of this study while acknowledging the potential role they may also play in the move to greater sustainability.

Johnson and Schaltegger (2019) build on the work of Hedström and Wennberg (2017) to look at a causal framework which links the disparate streams, whether focused at the micro, meso or macro-level, and functional or processual approaches to entrepreneurship for sustainable development. Johnson and Schaltegger (2019) describe the meso-level as individuals working together as “networks or social groups” (Ferraro et al., 2015). They propose a clearer interaction between the macro and micro-levels via the meso-level; and recommend further research into entrepreneurship for sustainable development to understand these connections better.

Some work has been done to link the macro and micro-levels in the field of sustainable entrepreneurship and the associated field of social entrepreneurship without direct use of such a multilevel framework. For example, Gümüşay (2018) takes the explored link between institutional logics and entrepreneurship (Bruton et al., 2010) and develops it further by viewing those relevant logics as an interinstitutional system at the macro-level with the social entrepreneur (actor) operating at the micro-level.

Gümüşay (2018) states that the market logics perspective and the community perspective are especially relevant to social entrepreneurs who seek to blend or manage conflicting institutional logics within their organisations to exploit existing opportunities or create new ones. Although the Johnson and Schaltegger (2019) and the Gümüşay (2018) papers are significantly different, both discuss the micro-level as the (social/sustainable/commercial) entrepreneur, engaging with society and the system at the macro-level, even where these terms are not used.

Detail is however still lacking as to *how* to connect the micro and macro-levels at the meso-level.

Geels (2011) provides a useful perspective on this challenge. Geel's (2011) arguments concern the potential influences and interventions at the meso-level. He uses the term *regime* as the meso-level, to engage *individuals* at the micro-level to alter the socio-technical *landscape* at the macro-level. There is however still limited information as to what those influences and interventions look like in practice for SE. Audretsh et al. (2007) discuss policy interventions and channels for all entrepreneurship.

The meso-level is defined in this thesis as the space between the individual at the micro-level and government and society at the macro-level, linking the micro to the macro-level, following the multilevel work of Johnson and Schaltegger (2019). Individuals with a shared interest in the grand challenges of society and the push towards greater sustainability in business and beyond (SDGs, UN, 2015) are connected via multiple networks and social groups (Davidsson and Honig, 2003).

The next section introduces Chapter 4 which discusses communities of practice as a concept through which to view the meso-level of SE.

### **1.7.2 An Introduction to The Communities of Practice Literature**

Chapter 4 discusses the literature of communities of practice which is used to explore the phenomenon of SE. The chapter therefore briefly summarises communities of practice, which were first identified as a phenomenon by Lave

(1991) and developed by Lave and Wenger (1991, 1998), who noted the existence of communities comprising of a range of individuals with a shared interest in a stated field. Lave and Wenger's work explores the dynamics between members, the communities' practices and how learning is facilitated within such communities. Communities of practice bring benefits to members, such as knowledge sharing and combined problem solving and as such are a locus of situated learning (Lave, 1991; Lave and Wenger, 1991).

Lave and Wenger's work has developed over time and been extended by Wenger and Wenger-Trayner (2015) but the criteria to be met for a CoP is that it has a *domain* of interest, is a *community* whether formally or informally constituted, and shares *practices* as a community (Lave 1991; Lave and Wenger, 1991; Wenger, 1998; Wenger and Wenger-Trayner, 2015); these lead to situated learning between members. Building on Wenger and Wenger-Trayner (2015), a SE CoP can be understood to comprise of sustainable entrepreneurs and associated stakeholders who share a deep commitment to the *domain* of SE. They may participate in formally arranged research events as was the case during this study, but also share *practices* beyond the structured workshops, voluntarily continuing to exchange knowledge when not asked and encouraged to do so, in discussions over coffee, lunch or dinner, and exchanging details and finding one another on Twitter for example, to continue the conversation and maintaining the *community*.

In an effort to make sense of what I was observing within and beyond the formally-organised activities of WP6, and resulting from my abductive engagement with the literature, I adopted the CoP perspective. The benefit of the CoP perspective

is its focus on knowledge exchange and learning between individuals, as well as a strong commitment to the domain. I also considered other meso-level concepts such as networks and ecosystems, and these are discussed in Chapter 4. I identified a CoP lens as the most appropriate, due to its focus on knowledge exchange and learning between individuals. Indeed, members of the CoP additionally develop their network as a shared practice. It provides the means to resolve the issues that may create barriers to SE and facilitates successfully scaling and replicating enterprises. In addition it helps us to better understand the phenomenon of SE and make a contribution to this field.

### **1.7.3 An Introduction to the Methodology**

The motivating objective, overarching research question, and three research questions described earlier guide the methodology. Chapter 5 details the ontology and epistemology of this thesis. It provides an outline of the literature review process undertaken to provide the SE literature review and the CoP literature review chapters. The EU research project, which gave me access to the SE stakeholders observed, provides important context for my study and therefore is detailed upfront at Chapter 2 for clarity. The methodology chapter, Chapter 5, proceeds by stating the primary data collection methods and sampling from the CoP I observed emerge organically from the EU funded project. My data collection for this thesis from this CoP was via data collection episodes which collectively provided the dataset for this qualitative research. My study used the access to the EU-InnovatE project to collect data for my own research, supplemented with significant participant observation notes, in total I produced 112 pages of notes and 57 photographs (Spradley, 1980; DeWalt and DeWalt,

2011). The full dataset includes 25 interview recordings, 57 photographs of workshop outputs, 214 pages of transcripts of the online conference forums and 112 pages of notes of discussions.

The ontological philosophy adopted accepts a priori knowledge and builds on this with further research. The epistemological philosophy used is one of constructivism, looking to understand reality as it is perceived through the interactions of the CoP participants. I collected data with permission from a SE CoP in which I too was actively immersed as a participant over a period of three years from January 2014 to December 2016; I also organised and participated in research activities, called data collection episodes in this study, designed to elicit supportive policy recommendations for SE. The data collection episodes included two consortium AGMs, two workshops, one round table event, one online conference and one face-to-face conference, plus 25 interviews (EU-InnovatE, 2017).

The data collection episodes were arranged as part of the EU-InnovatE project described in Chapter 2 (EU-InnovatE, 2017). The dataset is large when compared with the dataset of Lefebvre et al. (2015) whose longitudinal study into an entrepreneurial network was carried out over a 4 year period. The community comprised sustainable entrepreneurs, public sector employees, academics, funders, corporate collaborators, business advisers, non-governmental organisations (NGOs) and citizens, that is, multiple stakeholders with a commitment to SE.

I used a participant observation approach following Spradley (1980) and DeWalt and DeWalt (2011), to gather this data and then qualitative analysis using NVivo (Silver and Lewins, 2014) to arrive at findings which are described in Chapter 6.

The full methodology of data collection episodes, participants, participant observation and qualitative analysis are described in detail in Chapter 5.

#### **1.7.4 An Introduction to The Findings**

The data collection process and dataset analysis discussed in Chapter 5 resulted in a number of findings discussed in Chapter 6.5. This thesis seeks to respond to the research questions posed above. In doing so, it sets out the perceived benefits sought or drivers for joining or forming a SE community, the shared practices of that community and the outcomes of membership for individuals and their enterprises, the community itself and society as a whole. I state the drivers for individuals interested in SE to form a CoP and focus more on the practices they carry out within the CoP as is most common in the communities of practice literature. I draw out some of the apparent positive contributions of membership for them, their businesses, the community itself and wider society, in terms of contributions of this study.

I found the drivers to be most commonly related to prosocial motivation, that is, a strong commitment to sustainability and addressing the challenges such as isolation, a lack of resources, and gaps in government provision. It is understandable that the drivers are predominantly challenges, which individuals freely chose to join the community in order to overcome them. The practices were shaped by these drivers and address issues proactively and collaboratively. I find

individuals within the CoP engage in practices of network building, resource sharing, collaboratively evolving business models and re-shaping the SE infrastructure.

These are further discussed in Chapter 6.5, and I particularly draw attention to the observation that these practices are congruent with the existence of a SE CoP as described by Wenger and Wenger-Trayner (2015). Outcomes were positive, precisely because the individuals had organically formed a community to resolve existing issues and help one another. In doing so, they developed informal learning and relationships that resulted in them remaining connected to the community to help others.

The outcomes of the CoP include individual empowerment, enterprise scaling and proliferating, civil society strengthening, and, mainstreaming SE. These are discussed in detail and the outcome at macro-level, that is, mainstreaming SE, in particular is discussed as a major contribution in the subsequent chapter.

### **1.7.5 An Introduction to The Contributions of this Thesis**

Chapter 7 focuses on the contributions of this thesis and final conclusions. My findings contribute to the theory on SE in the following ways: Firstly, CoP members actively contribute to the development of the phenomenon of sustainable entrepreneurship (Gibbs, 2009) by cocreating policy (EU-InnovatE, 2017) thereby shaping the SE infrastructure.

Secondly this research provides a novel contribution to CoP theory. It recognises the CoP as a locus of situated learning (Lave, 1991; Lave and Wenger, 1991) whereby social capital is created. Social capital is stated by Davidsson and Honig



(2003) to be the key differentiator for the success of entrepreneurship. This connection between situated learning and social capital is evident in this SE CoP where participants receive and provide mutual support, signposting one another towards helpful information and funding sources, and sharing SE business ideas. Participants actively seek to learn more about the domain of SE from fellow participants belonging to multiple different stakeholder groups.

Participants have different roles outside the community, which comprises multiple stakeholder groups, and the roles of master and apprentice (Lave, 1991) within the group are fluid depending on the context of discussions. However this SE CoP adds to business CoP theory in that I find that it is characterised by fewer concerns about intellectual property protection or sharing market intelligence. In this way, SE ventures are supported and replicated, and business models evolved. Again, a prosocial motivation is evident as individuals see SE and its propagation as the goal, as opposed to their individual enterprises being in competition. This empowers individuals in SE to develop and contribute to the development of SE ventures.

Thus, many of the insights from the CoP could have implications for the wider field of SE. These are discussed in Chapter 7 at section 7.4.4 and will be shared more widely as a practitioner paper. Furthermore, these findings also have implications for policy on a global scale. If the practices of this international CoP could be communicated with relevant policymakers beyond the EU, the outcomes in my findings could have positive impact for the wider field of SE.

Additionally, this research provides contributions to the communities of practice theory. As stated, the participants in the CoP resemble participants in other communities of practice in that they have shared practices within a specified domain and are a community (Lave and Wenger, 1991). However, they differ from some communities of practice in the traditional, for-profit domain. Communities of practice in the for-profit domain may also span multiple organisations, but differ in their willingness to share intellectual property, which can be a concern of for-profits. They show strong commitment to the field of SE, rather than individual enterprises and goals. This is a result of their prosocial motivation, often absent from business communities. This shared prosocial motivation and value-driven participation means that participants engage with other participants as a community and as individuals, forming overlapping, interpersonal relationships, often learning and exchanging knowledge in areas of sustainability where they did not previously have expertise. These may mitigate personal risk of failure and provide greater confidence to early-stage sustainable entrepreneurs, they may also help later stage sustainable entrepreneurs successfully scale their enterprises.

This thesis makes a range of practitioner contributions and a full set of practitioner recommendations for each the different stakeholder groups is derived from the findings and discussed in Chapter 6.5 at section 7.4.4.

Participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) is used in this study to research a SE CoP, following Lefebvre et al. (2015) who use participant observation in their study of an entrepreneurship CoP. The novel approach of a CoP lens provides insights into the SE community, its practices

and potential for wider outcomes in the field. This is of particular relevance in the growing conversations about a new capitalism and social change, if we consider that such change may be driven from the community meso-level.

Finally, the chapter reflects on the limitations of this research and the potential steps for new research to build on these findings and contributions. The purpose is to ensure replicability to provide solutions to individuals, and also to assess whether there is potential for impact at the macro-level via policy recommendations (Audretsch et al., 2007). It is also important to consider whether such a Keynesian interventionist approach (1936) is unhelpful (Isenberg, 2010) to a traditional free-market approach to economics and indeed entrepreneurship (Friedman, 1970). It certainly could be argued that a more community based, organic approach to mutual aid which has been seen to be more effective than government interventions (Tiratelli and Kaye, 2020) is also more supportive of SE.

The thesis therefore concludes with a discussion of the findings, practitioner recommendations for different stakeholder groups, limitations and possible next research steps.

## **1.8 Conclusion to this Introductory Chapter**

This thesis brings together the academic fields of SE and communities of practice to better understand how viewing SE as a CoP offers insights, for the phenomenon of SE to support its growth and to contribute to wider SE theory. It aims to identify what is unique about a SE CoP and how this differs from the other types of for-profit and not-for-profit communities of practice discussed in the

literature and in Chapter 4 section 4.3. Moreover, as stated, this thesis adds to the body of knowledge in the field of SE at the meso-level, with key insights for the development of the phenomenon. While largely negative drivers bring individuals to the CoP, the emerging phenomenon of SE has much urgency and potential for positive outcomes worldwide, given the rapid and escalating depletion of world resources during the past 150 years (Brundtland Commission, 1987; United Nations Sustainable Development Goals, 2015).

I next provide the context to this study by describing the research projects of SPREAD (2012) and EU-InnovatE (2017).



## 2 RESEARCH CONTEXT: THE EU-INNOVATE RESEARCH PROJECT

### 2.1 Introduction

This chapter sets out the rich data I was able to collect through my privileged access to participants in the EU-InnovatE project, as part of the Cranfield University team. This context is useful, as individuals voluntarily came together and in doing so provide relevant insights for my research questions. I describe the boundaries of the EU-InnovatE research project (EU-InnovatE, 2017) which funded the WP6 data collection episodes. I gained access to the SE CoP as part of the Work Package (WP6) team, and collected data, as part of and supplementary to, WP6 and the wider EU-InnovatE project. EU-InnovatE was preceded by another research project, called SPREAD (2012), which developed scenarios for 2050 based on current unsustainable lifestyles. This chapter thereby provides context to the methodology later described in Chapter 5.

The context for my study was the EU-InnovatE research project (2017), which sought to investigate how end-user sustainable innovation and entrepreneurship could deliver on EU sustainability goals and support a move towards more sustainable lifestyles. This project comprised six research work packages. I was active in organising and collecting data for Work Package 6 (WP6) and had access to the research reports of the earlier WPs. I also attended in the AGMs for the consortium of academics for the whole EU-InnovatE research project (2017), participating in workshops and also gathering data. I am a co-author of the resulting Cranfield School of Management working paper by members of the WP6 team, *Policy for Sustainable Entrepreneurship: A Crowdsourced Framework* (Watson et al., 2022). The full EU-InnovatE research project (2017) was preceded by the SPREAD research project (2012) which

developed scenarios for 2050, given what is known about the world's resources, society and technological developments.

## **2.2 The SPREAD Project (January 2011-December 2012)**

As stated above, the EU-InnovatE project (2017) followed on from the SPREAD project (2012), which was carried out by a separate consortium receiving funding under the European Union's Seventh Framework Programme for Research and Technological Development (FP7) under the theme, Socio-economic Sciences and Humanities (SSH) (FP7, 2014). FP7 has been superseded by Horizon 2020, the EU's biggest research and innovation programme, which will soon be replaced by Horizon Europe (EC Funding Programmes, 2021). FP7-SSH specifically has been superseded by H2020-EU3.6 within Horizon 2020.

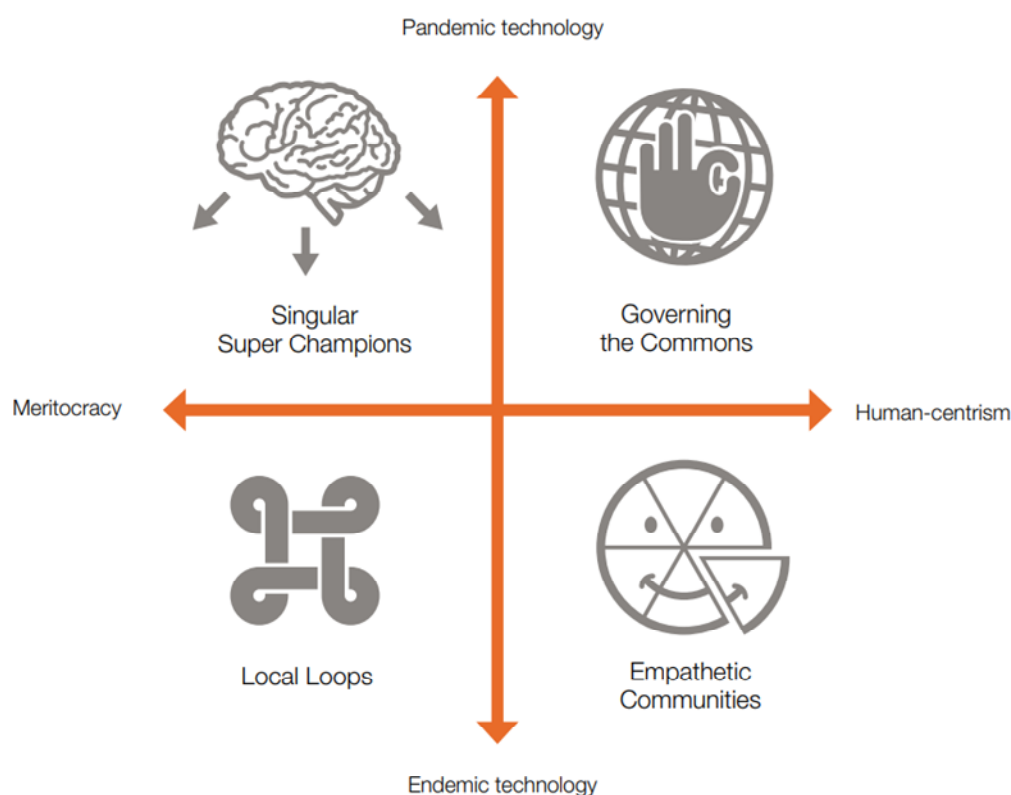
The SPREAD project was led by a cross-European consortium of ten organisations, including think-tanks, universities and non-profit organisations. This consortium created "*four future scenarios of possible societies to overcome challenges of current unsustainable lifestyles*" (SPREAD, 2012, p.1), based on what was known at that time and collected primary data to discover drivers and barriers for sustainable living, and where most impact could be made.

In order to develop a clearer understanding of how the different political, economic, societal and technological factors might combine into different alternative futures called scenarios, Scenario Planning Technique (Schoemaker, 1995) was employed. The purpose was to use these to help us understand the issues and work towards possible solutions for each scenario. Scenario Planning Technique (SPT), it is claimed, was first developed for the U.S. military by Hermann Kahn with the RAND Corporation in the 1950s. Kahn went on to found the Hudson Institute in 1961, whose

work is described by Chermack et al. (2001). SPT was adopted by businesses such as DHL Express, Royal Dutch Shell and General Electric in the 1970s to support strategy development. This evolution is discussed by Chermack et al. (2001) in the same study. Schoemaker (1995), discusses the tool in detail and the business application of SPT as an aid to strategic decision making.

Within SPREAD, four scenarios were developed envisaging how lifestyles might change to significantly reduce the material footprint from 27,000-40,000kg to 8,000kg per EU citizen per year by 2050. Material footprint is defined as the raw material extraction required to meet the final demand of an economy (Wiedmann et al., 2013). The scenarios exist within a context where technology is either pandemic or endemic, that is global and identical, or locally driven by locally available resources. In addition, society has become meritocratic or human-centric, that is, either highly divided by labour based on a clear set of developed professional skills of the individual or valuing the many skills and possible contributions of each person. The scenarios reflect these oppositional contexts and are named *Singular super champions*, *Local loops*, *Empathetic communities* and *Governing the commons* (Fig. 2.1).





**Figure 2-1 SPREAD Scenarios (SPREAD, 2012)**

### **Singular super champions**

*Singular super champions* are professionals trading and living by their skills in an environment with highly developed technology available globally so they can move anywhere, however there is financial or technological benefit in doing so. Expert knowledge is the only source competitive advantage in employment. There are conversely many “losers” in this society with many employees reduced to merely being a human resource of lesser value. Sustainability businesses such as upcycling are successful and great value is placed on education and enterprise.

### **Governing the commons**

*Governing the commons* is the second scenario. This is heavily reliant on the digital world which encourages sustainable consumer choices and makes best use of digital resources. It also supports networking of largely self-employed individuals, who are

very much in control of their lives via these collaborations. The interests of these collaborative networks direct politics, but there is also greater trust in politics which is now very much visible and relatable in everyday life. There is therefore greater emphasis on collective responsibility and working toward the greater good of society.

### **Local loops**

*Local loops* is the name of the third scenario which sees energy resource depletion forcing radical changes in the economy and society. As a result, local becomes most important in work and life in general. International travel ceases, tech solutions are produced locally to address local issues, and individuals specialise their skills to achieve maximum effectiveness, developing craftsmanship. Labour tasks such as cooking may be outsourced locally so that an inter-reliance evolves at the local level of the community.

### **Empathetic communities**

The final scenario is *Empathetic communities*. This scenario also focuses on local activities using local resources but there is greater focus on the community than the individual. The community is prioritised above individual needs and collaborative working is the norm. Government becomes localised at the town community level so political decisions are made by and for the people affected by them. Good ideas are “borrowed” from global culture and technological advancement, but the driving force is a “bottom-up” collaborative community focus, using local resources innovatively and depending on local seasonal food.

These four SPREAD scenarios (2012) paved the way for the EU-InnovatE research project focused on how to plan for these potential alternative futures. All four scenarios

eschew the economic dominance of multinational businesses and wasteful consumerism of the present. For-profit businesses do exist but for endemic technology scenarios, they have moved to include repairs and services with their product sales, and to provide products and services adapted to the needs of local markets. If they are operating on one of the two pandemic technology scenarios, these businesses are looking for smarter travel solutions, digital connectivity and solutions. Individuals also expect improved urban planning and better information about the full lifecycle of their products as part of a circular economy.

All four scenarios provide possible lifestyles of the future with a strong focus on the place of the individual citizen within those. The full report provides far more detail on the dynamic tensions and issues of each. As such, they provide a snapshot of versions of the predicted future, based in research, consultation and using recognised academic scenario planning techniques, according to the work of Schoemaker (1995).

There was some overlap between the SPREAD and EU-InnovatE projects in terms of project team members. More importantly, the SPREAD scenarios were used with both the EU-InnovatE project team at AGMs and at EU-InnovatE data collection episodes to better understand the potential societal, economic and governmental changes that could come about in the future. This guided thinking about how SE could both be fostered in such future scenarios, and how consortium members and participants might also interact with and impact those scenarios. A detailed explanation of the EU-InnovatE project follows.

### **2.3 The EU-InnovatE Project (January 2014-December 2016)**

These SPREAD scenarios therefore provide a detailed description of these predicted futures and raise the issues, clearly and with context, but suggest no solutions. Further

research was thus still required to look at some of the potential ways to address these sustainability issues and develop robust recommendations. In 2013, a consortium of 13 different organisations from across Europe had successfully bid to the European Union to research the potential of entrepreneurs and end users to innovate to address these issues in the transition to sustainable lifestyles.

This new project was delivered from January 2014 to December 2016. The stated aim was to examine *“the active role of users in shaping sustainable lifestyles and the transition to a green economy in Europe (“Sustainable Lifestyles 2.0”)”* (EU-InnovatE, 2017). This focus on users to develop sustainable products, services and systems led to a focus on creativity, innovation and entrepreneurship. It was a research project of mixed methods, resulting in policy recommendations co-created with stakeholders in sustainable innovation and entrepreneurship. These stakeholders included end users, companies, policymakers and experts and highlighted the power of people to provide solutions to companies and policymakers. The name of the project EU-InnovatE, was derived from “End User, Integration and Entrepreneurship” (EU-InnovatE, 2017).

## **Objectives**

In order to achieve its aim, the following objectives were developed:

1. Understanding the complex relationships between natural resources, human needs, technology, and economics with a focus on consumers’ values and behaviour in Europe (past and present)
2. Assessment of the short- and long-term obstacles and opportunities associated with the transition to sustainable lifestyles and green economy in Europe (future)

3. Investigation of new business models enhancing sustainable lifestyles and green economy in Europe (user sustainable innovation and entrepreneurship)
4. Measurement of the prospects of sustainable lifestyles and the green economy in Europe
5. Assessment of the political dimension of the evolution in sustainable lifestyles in Europe

These objectives followed on from the SPREAD scenarios and were addressed via seven discreet, yet linked work packages (WP) as described in the following subsections. As a member of the EU-InnovatE WP6 team, I attended Annual General Meetings and participated in workshops with the full consortium. I collected data from across the whole project, as well as data specific to WP6, which focused on developing policy recommendations to support sustainable innovation and entrepreneurship. Cranfield University was a member of the consortium with a key role conducting the research in WP6. Through the EU-InnovatE consortium I attended the consortium AGMs where progress across the WPs was discussed, and next steps decided. I also had access to the case studies, reports and other outputs of the whole project. Many of the entrepreneurs and associated stakeholders were involved in multiple work packages' data collection episodes. I gained access to them via my involvement in the project and the various data collection episodes and collected additional data as a participant observer (Spradley, 1980; DeWalt and DeWalt, 2011) for my own study, resulting in this thesis.

### **Work package 1 (WP1)**

This initial work package looked at secondary research via a systematic literature review to provide a historic analysis. It used the multilevel perspective to understand the evolution of the current unsustainable lifestyles in Europe and the rise of

consumerism with the consumer playing a broadly passive role. This work package also included a quantitative analysis of sustainability values and behaviours to provide an overview of the current situation in Europe.

### **Work package 2 (WP2)**

The outputs of WP1, along with the SPREAD scenarios (2012) informed this work package, whereby a group of individuals from business, policy and the public were also consulted. The purpose was to produce an assessment of the barriers and enablers to achieving the sustainable lifestyles and green economy in 2050. It used the SPREAD scenarios (2012), and provided an assessment for the intermediate term of 2025, ten years ahead of the project.

### **Work package 3 (WP3) and work package 4 (WP4)**

To address objective 3 above, work packages 3 and 4 focused on the roles of consumers in corporate innovation for sustainability, and sustainability entrepreneurship, respectively. Both WP3 and WP4 conducted case study research to see how innovations can be scaled via models for greater impact in society. A quantitative study and then a laboratory experiment were conducted to test and refine those models. The WP3 and WP4 teams worked with sustainable entrepreneurs and intrapreneurs (entrepreneurs within an company) to produce case studies. These case studies detailed successful sustainable innovations that could be replicated and scaled. The case studies provided learning opportunities for the wider research project, EU policymakers and the academic field of SE.

### **Work package 5 (WP5)**

WP5 looked to quantifiably measure the impacts of the detailed scenarios developed in WP2, by measuring material footprint. It looked at different core sectors such as

energy, mobility, food and the domestic household. It modelled activities and resource usage in each of these sectors via simulation to arrive at quantitative measures. The purpose was to identify how reducing the material impact might best be achieved, and any relationship between the sectors in terms of resource usage and material footprint. The purpose was to show how this tool could support European Union policymaking. It could inform policies being developed to encourage citizens to live more sustainable lives, and to create and scale innovations to support more sustainable lifestyles; that is, how best to support innovation entrepreneurship for sustainability. The measurement markers were designed to link citizen behaviour at the micro-level to the outcomes at the macro-level and then provide feedback as to how citizens modifying their behaviour would impact the material footprint of consumption.

### **Work package 6 (WP6)**

This work package was led by Copenhagen Business School and Cranfield School of Management, and I was part of the research team. WP6 looked at current policies and instruments and their effectiveness to support user sustainability, integration and entrepreneurship. The purpose was to develop EU policy recommendations to support these innovations. WP6 incorporated the learnings from WP1-5 and then each WP6 data collection episode fed into the subsequent one. The data collection episodes to look at existing policies were:

- two 2-day workshops conducted with multiple stakeholders including sustainable entrepreneurs, thought leaders, academics, NGO members, corporate leaders and policymakers
- 25 interviews conducted with policymakers and influencers
- a multistakeholder online conference with six themed and moderated forums plus two plenary forums.

The WP6 team, myself included, then presented the final recommendations to EU departmental policymakers at a round table event, which included detailed discussions of the policy ideas. Deliverables at each stage included reports for the EU funding body.

### **Work package 7 (WP7)**

This work package then synthesised all the outputs from work packages 1-6, to develop a comprehensive communications programme to include individuals and institutions to further support sustainable development. It also provided recommendations for the different key stakeholder groups involved in the project, such as policymakers, users and companies. A whole-day, free of charge, widely publicised, face-to-face conference (with subsidised travel to facilitate attendance) was held in Brussels to share the research findings with SE practitioners and all stakeholders with an interest in the field.

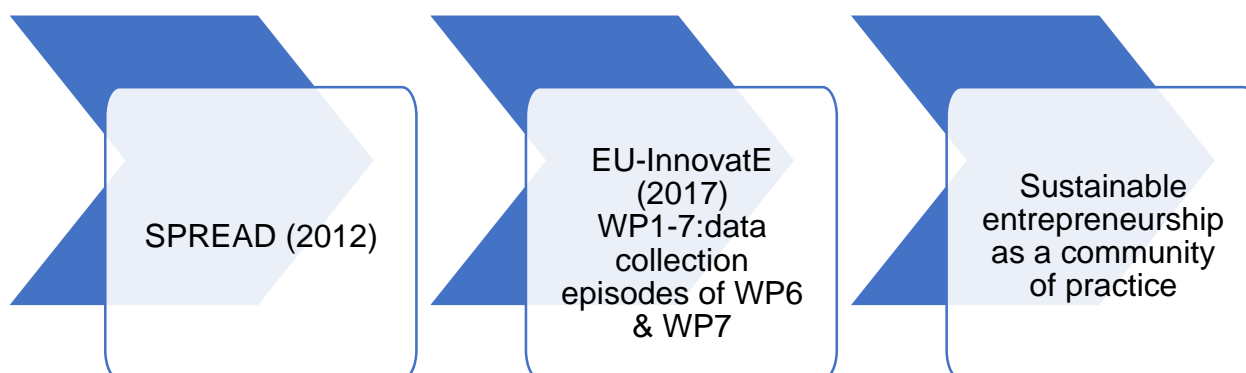
## **2.4 Summary**

Although the EU-InnovatE research project was designed with a focus on business models and policy recommendations to overcome barriers to sustainable lifestyles, it became evident over the three-year period of my involvement that the diverse actors in the project, both consortium members and participants, were realising a range of additional benefits through their interactions and shared practices. These practices triggered the set of research questions around the group as an emergent CoP. I therefore explored the communities of practice literature further as summarised in Chapter 4, along with the literature of SE in Chapter 3.

The SPREAD project (2012) provides the foundations for the EU-InnovatE project, from which I gathered data for this separate investigation into SE as a CoP. My



research therefore has foundations in the SPREAD project, which led to the EU-InnovatE project wherein I viewed sustainable entrepreneurs and allied stakeholders as a CoP, in order to derive insights for the field of SE.



**Figure 2-2 Development of This Study**

Table 2-1 summarises the data collection episodes from the EU-InnovatE project (2017) from which I gathered considerable data for use in this study, and which are further expanded in the Methodology chapter (Chapter 5):

**Table 2-1 EU-InnovatE Project: Data Collection Episodes**

Data Collection Episodes	Data Collected
Whole EU-InnovatE AGMs	<ul style="list-style-type: none"> <li>~ Workshop outputs</li> <li>~ Participant observation notes of full meetings</li> <li>~ Reports from WPs 1-5 and case studies</li> </ul>
<b>WP6:</b>	
Multi stakeholder workshops x 2	~ Workshop outputs as photos
Interviews with policymakers and shapers	~ Interview recordings
Online conference	~ Online conference transcripts
Round table event with EU policymakers	~ Policy recommendations slide deck
All WP6 events	~ Participant observation notes of events
<b>WP7:</b>	
Face to face conference	~ Participant observation notes

The next two chapters introduce and discuss the relevant academic literatures of sustainable entrepreneurship and communities of practice. Both, as secondary data collections, provide theoretical underpinning for this study. The literature helped me identify communities of practice as a useful theoretical lens through which to view SE to achieve my research objectives.

## **3 SUSTAINABLE ENTREPRENEURSHIP: A REVIEW OF THE LITERATURE**

### **3.1 Introduction**

This chapter reviews the SE literature to discuss what is known about the phenomenon, and how insights in response to my research questions could add to the extant literature. My review positions SE as having evolved from the broader domain of entrepreneurship, sharing academic antecedents in economic thought, yet being a distinct emerging phenomenon worthy of research in its own right. This chapter begins then by discussing entrepreneurship literature in general (section 3.2). Chapter sections follow on each of environmental entrepreneurship (section 3.3) and social entrepreneurship (section 3.4). The relationship between environmental and social entrepreneurs with SE are discussed in section 3.5. I then discuss the emergence of SE as a distinct phenomenon in section 3.6.

In section 3.7, I discuss the literature with reference to the multilevel perspective (Johnson and Schaltegger, 2019) and summarise in a table to demonstrate the limited literature at the meso-level. Finally, in section 3.8, I provide a summary of the full literature review as discussed in this chapter.

While I consider the extant literature of entrepreneurship, which is very much European and USA-centric, and focused on liberal free market thought, I also want to raise a more global perspective. Social entrepreneurship literature, overlaps with sustainable entrepreneurship, particularly in developing countries where it draws on bricolage and the local community and environment. Mair and Marti (2006), discuss social enterprises operating in developing countries, but the perspective of many of the authors is very much grounded in the Western tradition of entrepreneurship. More recently some authors in social and SE are emerging from those developing countries

themselves, often educated in the Global North academic tradition of entrepreneurship but with cultural insights from their own Global South backgrounds. The phenomenon of indigenous entrepreneurship is gaining more attention (Croce, 2020; Hindle and Moroz, 2021). Equally, some Global North academics are now exploring and seeking to better understand the emerging social, environmental and SE phenomena through a less US/European-centric perspective (Battilana and Dorado, 2010, Shepherd et al. (2022)). They often do so by providing more focus on the stories of these social and sustainable entrepreneurs. If we indeed are to look for global sustainable solutions, to protect both people and the planet, a global perspective seems logical and crucial.

I start this chapter then with a review of entrepreneurship literature, its history and streams, including stating the relevance of historic economic theory.

### **3.2 Research in Entrepreneurship**

Entrepreneurship has its origins in the three major schools of economic thought. Austria's early liberal economists (Menger, 1871; von Mises, 1912; Hayek, 1931) focus on the individual's motivations and ability to trade their labour as a resource in an employment market. Entrepreneurship relies on the individual's wish and capabilities to exert power in the market outside the traditional labour exchange of corporate employment, which upsets the status quo positively and influences the distribution of capital. In the German school (Weber, 1930), entrepreneurship is less a feature of the individual, and more a disrupter in a market-based system, based on the needs of society. Chicago's school of neoclassical economics (Stigler, 1961; Friedman, 1970) also follows a market-based view and believes the market should balance supply and demand for the good of society. All of these follow a broad Western economic tradition and reject Keynesian (Keynes, 1936) and Marxist (Marx, 1863) interventionist

economics, which are generally thought to create an illiberal environment unsupportive of entrepreneurship.

Entrepreneurship is generally defined in the management literature as the phenomenon of individuals who recognise business opportunities (including less conventional opportunities). They take the risks required to found, launch and grow those opportunities as businesses, often doing so as a result of market failures to satisfy the increasing needs of a growing global population (Shane and Venkataraman, 2000). A widely accepted definition states that entrepreneurship is:

*“Entrepreneurship is the dynamic process of creating incremental wealth. This wealth is created by individuals who assume the major risks in terms of equity, time and/or career commitment of providing value for some product or service. The product itself may or may not be new or unique but must somehow be infused by the entrepreneur by securing and allocating the necessary skills and resources.”*

(Ronstadt, 1984, p.28).

The Ronstadt definition brings together Friedman (1970) and the view of a self-regulating market, Kirzner (1973; 1979) who sees the individual entrepreneurs as central, and the Schumpeterian (1942, 1947) idea of economic capital both destroying and renewing itself. While the different economic viewpoints have different foci, they all contribute to our understanding of the role of the entrepreneurship in the modern day, free markets of global business.

These foundational studies of entrepreneurship are therefore still visible in current academic discussions, both of entrepreneurship in the functional and in the processual approaches, and also in the associated streams of specific entrepreneurs, discussed in sections 3.3, 3.4 and 3.6.

Some academics focus predominantly on the entrepreneur, their activities and traits (McClelland, 1987; McMullen and Shepherd, 2006; Alvarez and Barney, 2005); and their agency in an environment of uncertainty to create opportunity (Schumpeter, 1948). The *functional* approach is a term adopted from sociology and the early social sciences philosophers (Durkheim, 1893; Spencer, 1898). They follow a positivist philosophy and state that society comprises different elements that need to work together to maintain a state of social dynamic equilibrium, in order to avoid dysfunction.

Other academics reject the idea of successful entrepreneurs as “heroes” with innate entrepreneurial traits and skills (Shefsky, 1994; Mitchell, 2016), and instead focus on the entrepreneurial process, that is, the various processes required to create, grow and help enterprises succeed. This approach considers that the way an enterprise is managed and strategised dictates outcomes, and can be replicated, rather than focusing on individual entrepreneurial traits. This is therefore referred to as the *processual approach* (Fayolle, 2007b; Fayolle et al., 2011; Hjorth et al., 2015) and posits that processes may have multiple outcomes, both intended and unintended, and may be a richer source of understanding how or why some enterprises succeed while others do not. Hjorth et al. (2015) assert that the processes are fluid rather than a rigid constraint, promoting creativity in enterprise forms and delivery. This is important when entrepreneurs are often also innovators of products or business models. This stream of academic thought focuses on entrepreneurship as a practice, linked to innovation. It considers best practice at each stage in the process from idea creation through to creating a business with long-term viability. Indeed, many universities teach entrepreneurship and associated skills such as innovation as discrete courses, and also embed them within a variety of other courses supporting

the view that entrepreneurship can be taught, drawing on this literature. This stream of processual entrepreneurship also considers the scope for support for these processes in practice, integrating the enterprise with its business context. It thereby touches on networks to support entrepreneurship (Birley, 1985) and associated concepts such as entrepreneurial ecosystems, both of which I will discuss further in Chapter 4 in section 4.4.

The dual approaches of *functional* and *processual* entrepreneurship are therefore still visible in more recent literature. A brief overview of the recent literature on entrepreneurship theory and practice shows two strong areas of focus. One is a strong focus on the micro-level, that is, the psychological drivers and motivations for individuals to set up and grow their enterprises. The other is a strong focus on the contextual factors of global economic downturn and social pressures at the macro-level, which may shape these individual motivations (Santos, et al., 2017). A recent Special Issue in the Strategic Entrepreneurship Journal brought together the two historical streams to consider entrepreneurship conceptually, including both functional and processual approaches (Wadhvani et al., 2020). As the emerging phenomenon of SE (see section 3.6) seeks to link both the strategic action of entrepreneurship to address grand challenges of sustainability (SDGs, UN, 2015) and to address the specific issues faced by sustainable entrepreneurs, this entrepreneurship literature is relevant to this thesis.

Of particular interest to this thesis, and in the same special issue, is the exploration of the interplay between the public actors, such as state policy to support funding and innovation, and individuals as entrepreneurs, known as private actors, thereby linking the macro to the micro-levels (see section 3.8 for SE and the macro and micro-levels). Demil (2020) discusses in detail the difficulty in categorising emerging enterprises,

giving the example of Uber, which made news headlines for this reason. Is Uber a personal transport business or a technology business? This discussion is pertinent to how sustainable enterprises should be categorised in order to be adequately regulated and supported by policy, when they may be novel enterprises seeking to address sustainability issues in novel ways. While market-based economics are favoured echoing the Chicago school (Knight, 1921; Friedman, 1970), we see that there is some government intervention via policy (Keynes, 1936), to regulate and support the market for the good of society.

The conversation within entrepreneurship academia about its potential contribution to society within a concept of market economics is well-established. An earlier Special Issue by the same journal gathered articles under the umbrella title of Entrepreneurship in the Public Interest. The call for papers by McGahan et al. (2013) specifically addresses the contribution stakeholders could collaboratively make: “*that policymakers, business leaders, and entrepreneurs were on the cusp of a new era of collaboration to address ‘the most pressing strategic issues of our time.’*” (p.1). It could be argued that entrepreneurship has been moving in line with the wider market for some time, to explore opportunities that have come about due to depleted natural resources. These have not always been in the public interest, where they have included finding alternative sources for such resources, at times with limited benefit to the local population, and potentially significant detriment. This call, however, specifically asked for papers about resource management, public-private collaboration and innovation. Entrepreneurship is seen by many in the field to hold the potential to address grand challenges (SDGs, UN, 2015) through innovation (Dean and McMullen, 2007).



The concept of public entrepreneurship is raised previously by Klein et al. (2010), who address the growing popularity of entrepreneurship within government and conversely the growing application of private entrepreneurship for public interest. There is a sense that the global recession of 2008-2013 (Office for National Statistics (ONS), 2018) had created both gaps in direct government provision of services and opportunities for entrepreneurs (Miller et al., 2012). This is despite temporary Keynesian economic government interventions (1936) such as, for example, to prevent the banking sector collapse, and to maintain economies during covid-related shutdowns. Related literature exists on bricolage entrepreneurship, where poverty drives entrepreneurial action by individuals (Albert, 2019; Stinchfield et al., 2013). This is discussed further in section 3.4. Some of the literature focuses more on the internal aspects of the enterprise, how assets can be combined to create competitive capabilities and competencies especially around innovation and renewal of knowledge (Tripsas, 1997). Shah and Tripsas (2007) build on this to discuss how users can become entrepreneurs by addressing market gaps they face as consumers. We certainly see this in sustainability entrepreneurship where citizens look to address a problem they face in their personal lives, and so innovate and then recognise a market opportunity for their solution. An example is a business described later in this study, founded to grow mushrooms from used coffee grounds, Beyond Coffee. Other examples include the clockwork radio, invented by Trevor Baylis (Windup Radio, 2022), and insulation created from wool (Rockwool, 2022) amongst others. The connection between the problem-solving innovation of entrepreneurship and SE is indisputable.

The study of entrepreneurship focuses on single-goal for-profit businesses, predominantly on the attributes of these enterprises and their founders, and the contexts in which they arise and may flourish. Kuratko (2009, 2011) echoes Drucker

(1985) and evokes Schumpeter (1942) in his assertion that entrepreneurship drives innovation. He asserts that innovation is the basis for the entire economic system of market-based capitalism. Capitalism may be the root of environmental and social challenges, but the innovation and problem-solving of entrepreneurial action is seen by advocates of environmental entrepreneurship, social entrepreneurship and SE (Dean and McMullen, 2007) as holding the potential to address these grand challenges (SDGs, UN, 2015). SE does also include businesses seeking to make a profit but encompasses these additional social and environmental goals. It is this dual focus on entrepreneurship and sustainability which differentiates SE and makes the phenomenon distinct and worthy of investigation in its own right (Thompson et al., 2011). SE therefore is the exploration of how entrepreneurship can resolve the resource depletion and growing demand issues currently facing capitalism globally and summarised by the term *sustainability*. I discuss the associated literatures of environmental entrepreneurship and social entrepreneurship next in turn.

### **3.3 Environmental Entrepreneurship**

*Environmental entrepreneurship* (Keogh and Polonsky, 1998; Linnanen, 2002; Krueger, 2005), *green entrepreneurship* (Chick, 2009) and *ecopreneurship* (Schuyler, 1998; Schaltegger, 2002; Schaper, 2002; Dixon and Clifford, 2007) are interchangeable terms in the literature to denote entrepreneurship arising to resolve environmental issues. Schuyler (1998, p.3) defines: “*Ecopreneurship, also known as environmental entrepreneurship and ecocapitalism, is becoming more widespread as a new market-based approach to identifying opportunities for improving environmental quality and capitalizing upon them the private sector for profit*”. This definition neatly draws together the dual goals of environmentalism and profitability. It positions this entrepreneurship as a traditional capitalist approach to business (Durkheim, 1893;

Parsons, 1975), in the modern context of challenges (SDGs, UN, 2015) posed by depleted natural resources, pollution and climate change (IPCC, 2021).

As such, it can be traced back to the tradition of entrepreneurship as discussed in the Chicago School of economic thought (Knight, 1921; Friedman, 1970) that the markets will naturally rebalance the business needs, for access to capital and other resources, with economic growth. It equally revisits the Austrian school whereby the individual drives movement in the markets by exploiting their own labour as a commodity of value or by addressing business opportunities via entrepreneurship (Kirzner, 1973, 1979; Pastakia, 1998; Walton and Kirkwood, 2013). The individual may profit then from a market opportunity to create an enterprise to limit and counter potential environmental damage of their operations. They may equally derive “profit” by moving individually from a lifestyle creating environmental harm to one of no negative ecological impact; or, in the most market-focused economic interpretation, by developing a profitable business from such a lifestyle (Schuyler, 1998; Schaltegger, 2002; Chick, 2009).

This body of literature is useful in understanding the potential of entrepreneurship to deliver on environmental goals. It also counters the assertion of general entrepreneurship literature that the ‘entrepreneurial mindset’ (Hisrich et al., 2008) and drive for financial success are the key factors in successful enterprises. SE draws from this environmental body of entrepreneurship literature but takes it further, prioritising the societal goals of social entrepreneurship and traditional profit goals equally with the environment (Gibbs, 2009; Schaltegger and Wagner, 2011).

### **3.4 Social Entrepreneurship**

SE is related also to social entrepreneurship which Mair and Marti (2006) describe as combining entrepreneurship with some form of social goals. Social entrepreneurship

can thereby be seen as evolving from the original academic writing about capitalism as a driver of economic growth for social good. The original economic writers such as Durkheim (1893), and traditional economists such as Parsons (1975), drew on social sciences. They recognised trade and business growth as sources of wealth creation, creating employment and allowing philanthropy in areas such as health, education and the arts. A driver for this philanthropy by business owners was to reduce social unrest, criminality and other social ills and to benefit society in general.

In the current literature, social entrepreneurship is still viewed as a business opportunity within capitalist society to address certain social ills, which are sometimes seen as secondary or paramount to profit. One example is Jeff Skoll, founder of the Skoll Foundation (Skoll Foundation, 2022), which supports social entrepreneurs with loans, education and networking opportunities. He originally became a billionaire through his early involvement with the for-profit eBay and yet declared his goal was always to have enough resources to make a difference socially. His current film company, Participant Media, has this stated purpose: *“The goal of Participant is to tell stories that serve as catalysts for social change. With our television channel, we can bring those stories into the homes of our viewers every day.”* (Participant, 2022). This is just one of Skoll’s activities and the line is blurred between business and philanthropy. These are clear examples of social entrepreneurship.

Entrepreneurs per se are often described as “risk takers”, following the early Chicago school of economic thought (Knight, 1921; Friedman, 1970), and the specific characteristics of successful entrepreneurs are still discussed in the functional literature today (McClelland, 1987; McMullen and Shepherd, 2006; Alvarez and Barney, 2005). Pro-social motivation and ‘evangelising a cause’ are recognised as drivers for social entrepreneurship in the literature (Battilana and Lee, 2014). This

motivation may lead social entrepreneurs to create enterprises which would otherwise be seen as “risky” - by business-owners, potential investors and wider society. Social entrepreneurs often step in where there is failure of government or market provision, accessing alternative sources of finance, such as impact investment (Miller et al., 2012). Battilana and Lee (2014) specifically explore the motivations and characteristics which lead to successful social entrepreneurship. Success is defined by these enterprises achieving both their financial and societal goals.

Bricolage entrepreneurship (Lévi-Strauss, 1962) was also mentioned in section 3.2 as emerging in poor and deprived areas, where there is a lack of traditional employment options. Poverty then drives individuals to create business opportunities of their own. They may be entrepreneurs, driven only by profit; they may also be social entrepreneurs, creating business opportunity to additionally meet social needs in areas of deprivation, being part of and motivated by the needs of the local community (Albert, 2019; Stinchfield et al., 2013).

The social entrepreneurship literature (Stoner and Wankel, 2007; Wankel, 2008; Battilana and Dorado, 2010; Bjerke and Karlsson, 2013; Battilana and Lee, 2014) seeks to demonstrate the ability of entrepreneurs with their characteristics of problem-solving, determination and flexibility to also deliver on prosocial motivations. Social entrepreneurship is often aligned with benefit to a particular social group deemed to be disadvantaged, and is of great interest to government organisations, NGOs and cause-related not-for-profits (Leadbetter, 1997; Zahra et al., 2009). These organisations often view social entrepreneurship as having potential to address some of the market gaps created by reduced direct provisions by government.

Social entrepreneurship communities exist as sources of (mutual) aid in the Global North such as urban garden groups and farming collectives which bypass both local government and charity sector initiatives to autonomously create local tailored solutions (Cooney, 2020; Tiratelli and Kaye, 2020). Additionally in the Global South these exist, for example, in the form of the self-help groups of women's social entrepreneurship (Vadde and Ratnam, 2014; Nayyar, 2017). The focus within this niche of the social entrepreneurship literature is on how such groups allow members to pool resources. The literature discusses how this may benefit individual social entrepreneurs, producing synergies and skills development. These papers argue that such groups support a vital challenge to poverty in many of these communities in the South, providing learnings for groups of social entrepreneurs in the North. Successful groups create synergies and knowledge exchange.

Some social entrepreneurship literature focuses on the individual entrepreneur, studying their motivation and flexibility to create new business, improve personal economic wealth, and also provide social change and develop social communities (Luke et al., 2007). The ideas of motivation, community and knowledge/resource sharing to advance individual social entrepreneurs in their ventures is helpful in the consideration of SE in this study.

### **3.5 The Relationships of Environmental and Social Entrepreneurship with Sustainable Entrepreneurship**

The importance of the related environmental and social entrepreneurships to SE is that they share similarities and SE encompasses both environmental and social entrepreneurship goals. They therefore provided context and supporting knowledge to my reading of the SE literature.

York and Venkataraman (2010) demonstrate through an empirical study that organisations which include a for-profit goal alongside environmental goals, are more likely to succeed than enterprises that are motivated overwhelmingly or solely by an environmental cause. The enterprises motivated by a cause alone ultimately lose focus on the need to be financially sustainable and are therefore more likely to fail. Equally, if an enterprise is a for-profit with secondary environmental goals, this is often poorly received by consumers who may be cynical about the entrepreneur's motivation and values. This can adversely affect the longevity of the dual-goal business' success. The dual-goal enterprises which succeed then are those which are truly hybrid, incorporating enterprise practices, and prioritising both profit and environmental goals equally.

As discussed, environmental entrepreneurship and social entrepreneurship literature threads exist which focus on dual rather than triple goals, linking business goals with either those of environment *or* people. Those may evolve into SE, following Belz and Binder (2017) but it cannot be assumed that all will. These cannot be strictly seen as a precursor to the emerging phenomenon of SE as some businesses may never move beyond dual goals to triple goals nor indeed ever intend to. The entrepreneurship literature threads remain linked however, and the two fields of environmental and social entrepreneurship can inform our thinking about enterprises dealing with more than a single goal of profit.

At times, the literature also discusses the ability of social entrepreneurship to facilitate replication of these enterprises and thereby the diffusion of innovations and enterprise ideas, whether via networks or ecosystems (Siqueira et al., 2014).

Schaltegger et al. (2018) explicitly link the importance of collaboration to the potential contribution SE could make to achieving the United Nations Sustainable development goals (SDGs, UN, 2015). Within this paper, they discuss cross-actor collaboration in enterprise activities to achieve enterprise goals. In addition, they state value in: “*cross-sector cooperation between different forms of entrepreneurship such as social entrepreneurship, sustainable entrepreneurship and policy entrepreneurship*” (Schaltegger et al., 2018, p.131). As such, it is important to have a clear understanding of the related entrepreneurship literatures and their potential contribution to our understanding of the field of SE.

It is also the case that some hybrid enterprises do indeed develop from holding dual goals to triple goals, according to Belz and Binder (2017), and so these associated literatures also provide valuable insights to this research. I therefore explore next the emergence of SE as a distinct phenomenon, worthy of research in its own right.

### **3.6 Emergence of Sustainable Entrepreneurship as a Distinct Phenomenon**

Siqueira et al. (2014) recognise the potential of social entrepreneurship to additionally deliver on environmental goals and not contribute further to the environmental degradation. According to Belz and Binder (2017), sustainable entrepreneurship takes these dual goals of profit and societal change or environmental concern and through a convergent process, blends them to encompass all three goals. SE literature notes the often-conflicting demands of these three goals and discusses means to achieve this blended goal approach, or *triple bottom line*, a term first coined by Elkington (1997). Elkington (1997) saw the importance of managing the complexity of these, at times, conflicting goals in order to develop truly sustainable business. That is to say, for-profit enterprises that are not detrimental to the environment nor to people and



ideally instead positively contribute to the environment and to people. York and Venkataraman (2010) assert however that by blending potentially conflicting goals effectively, a sustainable enterprise has greater probability of success.

There is emerging academic literature focused on achieving these triple bottom line goals via entrepreneurship, such as sustainopreneurship (Abrahamsson, 2006) or SE (Gerlach, 2003; Schaltegger & Wagner, 2011; Weidinger et al., 2014; Belz & Binder, 2017; Schaltegger et al., 2018). Sustainable entrepreneurship therefore is defined by Schaltegger and Wagner (2011, p.223) as the phenomenon whereby:

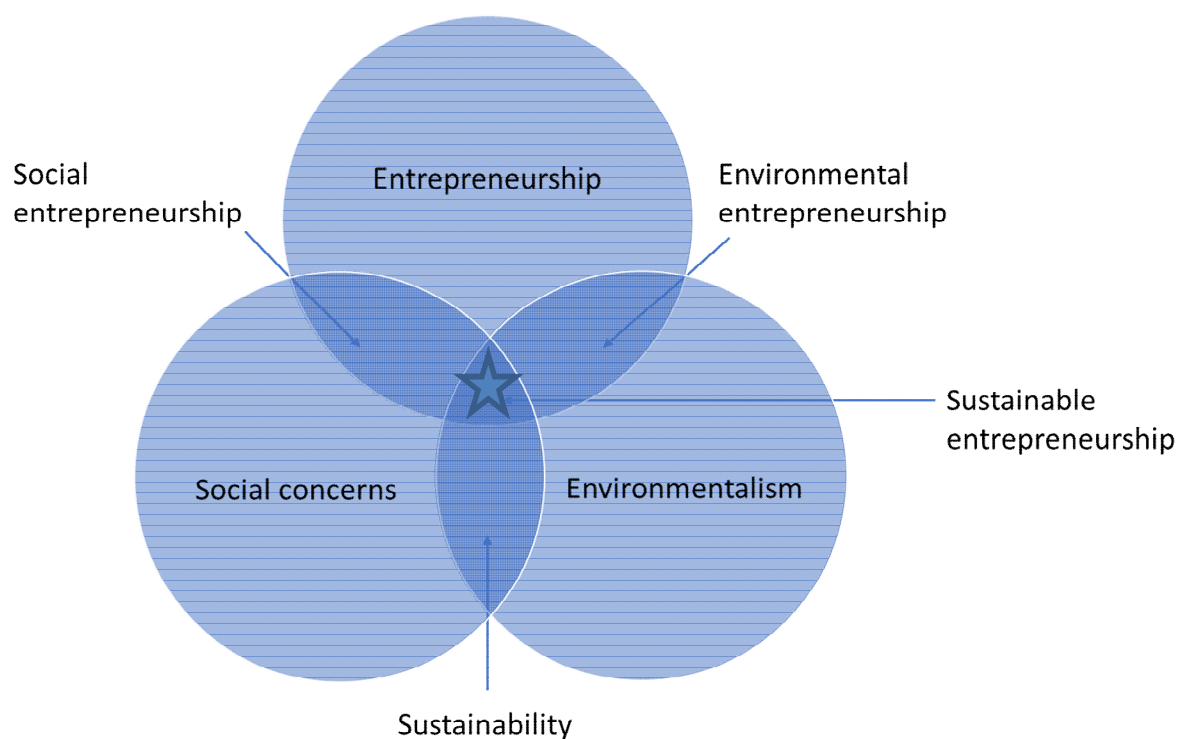
*“Sustainable entrepreneurs destroy existing conventional production methods, products, market structures and consumption patterns, and replace them with superior environmental and social products and services.”*

SE thereby draws on two aspects of entrepreneurship literature. One is where entrepreneurship is evolving to create more sustainable business models. The other is creating more radical Schumpeterian change to the market. Both may occur in response to limited resources and increasing sustainability demands of consumers. SE literature (Cohen and Winn, 2007; Cohen et al, 2008; Schlange, 2006) therefore recognises the invaluable contribution of entrepreneurship to progressing towards more sustainable living in society. Following Belz and Binder (2017, p.2), I define the practice of SE as *“the recognition, development and exploitation of opportunities by individuals to bring into existence future goods and services with economic, social and ecological gains.”*

The literature now recognises SE as an emerging phenomenon in its own right, related yet distinct to entrepreneurship, environmental entrepreneurship or social entrepreneurship and their associated literatures. Figure 3-1 shows the linked relationship, following Burkhart et al. (2011), between the entrepreneurship streams

of literature most closely related to SE, all of which draw on the wider and more established entrepreneurship literature.

**Figure 3-1 Sustainable Entrepreneurship and its Relationships to Other Entrepreneurship Literature**



Considering social entrepreneurship as a separate phenomenon from entrepreneurship is debated by Dacin et al. (2010). They assert that research in social entrepreneurship benefits from not being separated from the wider field of entrepreneurship and indeed would benefit further from research using models and frameworks employed in the wider entrepreneurship literature. Similarly, I accept that SE is closely related to the wider entrepreneurship literature, and closely connected to social and environmental entrepreneurship literatures, and have included these in the review in this chapter (sections 3.2, 3.3, 3.4, 3.5 and 3.6). However, following Thompson et al. (2011) and Kletz and Cornuel (2016), sustainable entrepreneurship seeks to deliver profit, social and ecological gains and thereby differs from social entrepreneurship with which it shares some origins. Sustainable enterprises have sufficient distinctiveness with the complexity of managing and balancing triple goals, to warrant separate academic interest.

This emerging phenomenon of SE has evolved as a distinct thread from the earliest academic discussion of entrepreneurship as a core activity in the capitalist economy (Thompson et al., 2011), and still holds the definition of individuals innovating and taking risk in creating and growing enterprises for the best use of capital and other resources for the benefit of society. This remains the focus of entrepreneurship as per the Ronstadt (1984) definition.

*“Entrepreneurship is the dynamic process of creating incremental wealth. This wealth is created by individuals who assume the major risks in terms of equity, time and/or career commitment of providing value for some product or service. The product itself may or may not be new or unique but must somehow be infused by the entrepreneur by securing and allocating the necessary skills and resources.”*

(Ronstadt, 1984, p.28).

*“Sustainable entrepreneurs destroy existing conventional production methods, products, market structures and consumption patterns, and replace them with superior environmental and social products and services.”*

(Schaltegger and Wagner, 2011, p.223).

When compared with the Ronstadt (1984) definition of entrepreneurship, the Schaltegger and Wagner (2011) definition of sustainable entrepreneurship highlights the different aspects of sustainable entrepreneurship. It shows that both focus on a dynamic process of creative destruction (Schumpeter, 1942) but differ in that sustainable entrepreneurship looks to apply that creative destruction beyond merely products and services and also applies it to production methods, market structures and consumption patterns. The focus is to create superior products and services not just for wealth creation but also to create superior environmental and social products and services.

The definitions therefore show the distinctness of this emerging phenomenon (Elkington, 1997; Schaltegger and Wagner, 2011; Kletz and Cornuel, 2016; Belz and Binder, 2017) and following the work of Thompson et al. (2011).

### 3.7 Specific Challenges for Sustainable Entrepreneurs

There is limited extant literature on the specific challenges faced by sustainable entrepreneurs. Those that do exist are quickly out of date given the renewed interest in sustainability by governments and society, precipitated by citizen activism and focus provided by events such as COP26. The literature focuses predominantly on the grand challenges (SDGs, UN, 2015) they seek to address, as opposed to the challenges they face when attempting to do so. A summary of the challenges they face as discussed by Hoogendoorn et al. (2019) is seen at Table 3-1.

**Table 3-1 Specific Challenges for Sustainable Entrepreneurs, Based on Hoogendoorn et al. (2019)**

Challenges faced by SE	Specific challenge	Description
Resources access	Access to finance	Historical for-profit performance measures either not appropriate or available
	Access to knowledge	Institutional environment poses admin and information challenges for start ups
	Local access is limited	Business hubs are in cities, not rural areas
Fear of failure	Confidence in own skills	Lack of confidence in business skills; higher fear of failure
	Self-perception and identity	Venture linked to personal identity and self-perception
Policy issues (Institutional environmental constraints)	Disjointed policy	Policy is not yet all joined up which may disadvantage new SE ventures
	Policy constraints	Policy may favour incumbents and traditional approaches
	Niche market access is limited	Policy may target one sustainability option with incentives over alternative sustainability options (e.g. Solar energy grants but no or less funding for other green energy sources)

### **3.8 Sustainable Entrepreneurship at the Micro and Macro-levels**

In the field of entrepreneurship, the entrepreneur, society and the economic environment are all factors in a system, interrelated and co-dependent. They are sometimes investigated separately at the micro or macro-level, however the phenomenon as a whole presents a disconnect between the micro and macro-levels. This can provide useful context as to how individuals, collaborating at the meso-level, can address grand challenges of sustainability (SDGs, UN, 2015) which need further investigation.

Johnson and Schaltegger (2019) offer a multilevel perspective approach to view the SE phenomenon for greater insight. The micro-level focuses on the individual, the meso on the interactions between individuals and organisations, and the macro at a policy or societal level, such as the Sustainable Development Goals (SDGs, UN, 2015). This multilevel perspective theory is of interest as our review of the social and environmental literature revealed a strong focus on the individual motivations and traits of entrepreneurs as discussed already. In addition, Hoogendoorn et al. (2019) explore the perceived barriers and risks to sustainable entrepreneurs at the micro-level, notably a perceived lack of access to institutional resources and a personal risk of failure. This indicates a need for change at the macro-level to alleviate these. As I explored the SE literature further, it became apparent that the political and social drivers for sustainable development will require change at the macro-level (Johnson and Schaltegger, 2019). This point resembles research in general entrepreneurship on potential policy levers and support (Audretsch et al, 2007a). This suggests a means to achieve far-reaching change in society and potentially the current economic

system to overcome the two issues of depletion of natural resources and poverty. How the individual sustainable entrepreneur operates at the meso-level, focuses largely on the processes through which they exploit or create opportunities, but rarely discusses how stakeholders for SE problem solve and maximise those opportunities in collaboration with one another.

Audretsch et al. (2007a) discuss the policy intervention channels which support entrepreneurship which I identify as macro-level, following Johnson and Schaltegger (2019). Audretsch et al. (2007a) indicate that there are multiple channels which are not managed in an integrated and coherent manner. This in itself is of interest for SE policy at the macro-level where there are even more potential channels for intervention such as “green” policy, small enterprise policy, education policy and social policy but as asserted in some of the more critical literature, there is limited evidence of the positive impact of policy interventions (Isenberg, 2010). It may be that changes to these macro-level policy interventions would be supportive of SE, but without a clear conduit (Audresch et al. 2007) or facilitation at the meso-level, they may still not reach their target sustainable entrepreneurs and potential sustainable entrepreneurs at the micro-level. This points to the importance of greater understanding of the facilitation activities at the meso-level.

To date, the literature focuses predominantly on *either* the development process of a sustainable enterprise from dual goals to triple goals, the individual sustainable entrepreneur’s characteristics required for success, both of these at the micro-level of the multilevel perspective (Johnson and Schaltegger, 2019), *or* the drivers for SE at the macro-level.



While Hörisch et al. (2014) focus on sustainability management, rather than SE, the insights into the relevance of stakeholder theory are relevant to this study of a group of sustainability stakeholders. This thesis discusses how stakeholders with different demands can unite around a theme (sustainability), using the original definition of *integrative* stakeholder theory as per Freeman (1984) and Freeman et al. (2010). In this line of academic thought, stakeholders generate mutual interests for *win-win* outcomes, rather than considering their interactions as trade-offs with an expected loss in something of value as part of the negotiation. This provides some insight from literature at the meso-level, but it remains limited.

Table 3-2 summarises the literature on SE by theme. Papers are included in the table on the basis of keyword search and a significant number of citations, I also specifically looked for papers exploring the meso-level to ensure accurate representation. Table 3-2 shows the predominance of the trait-based/functional and process-based/processual approaches to SE (as in the wider entrepreneurship literature) at the micro-level and a focus on political and societal influences on and impacts by SE at the macro-level. Most importantly, from the point of view of the current study, it demonstrates a gap in knowledge at the meso-level.

The table then clusters the current literature into themes using the literature of seminal authors. It includes the theme, the seminal authors whose writing focuses on each theme, the unit of analysis level of the research, and an indication as to whether the research sits at the macro, meso or micro-level. The meso-level gap is apparent.

**Table 3-2 Themes from Sustainable Entrepreneurship and Associated Literature at Macro, Meso and Micro-levels**

Theme	Authors	Unit of analysis: individual/ enterprise/society	Micro/meso/ macro-level
Traits and goals of successful social and sustainable entrepreneurs; also the features of successful hybrid-goal enterprises; including how conflicting goals are managed	Markman & Baron (2003); Markman et al. (2016); Bjerke and Karlsson (2013); Battilana & Lee (2014); Battilana & Dorado (2010); York & Venkataraman (2010); Belz and Binder, 2017; Hoogendoorn et al. (2019)	Individual/Enterprise	Micro
Focus on typologies of different entrepreneur: introducing terms for very specialised types: e, g, ecopreneur, bioneers, social bricoleurs	Schaltegger (2002); Gerlach (2003); Zahra et al. (2009)	Individual/Enterprise (when seen as an extension of the entrepreneur)	Micro
Differences between incremental and dynamic sustainable innovation: corporate versus enterprise	Hockerts & Wüstenhagen (2010)	Enterprise (when viewed as the intersection between individuals and the economy)	Meso
Sustainable entrepreneurship as a formalised community lifestyle; also altpreneurs who do not aim to be part of the existing capitalist society	Blundel et al. (2017); Yates (2009); Hertel and Belz (2017)	Individual or community (self-segregated from society)	Micro
The policy channels which support entrepreneurship and its associated types such as green entrepreneurship	Audretsch et al. (2007a)	Governmental policy	Macro
The role of entrepreneurship in increasing the prevalence of sustainability	Abrahamsson (2006); Belz and Binder (2017); Gerlach (2003); Sc; Schaltegger and Wagner (2011); Weidinger et al. (2014); Kletz and Cornuel (2016)	Society	Macro

### 3.9 Chapter Summary

SE sees entrepreneurship as a potential solution to the drivers for sustainable development, such as reduced environmental resources coupled with increasing human populations and therefore demands on those resources. It is often viewed as a risk-taking phenomenon, willing to create and exploit new opportunities, to solve new challenges posed by a post-capitalist paradigm (Kuhn, 1962) where resources are increasingly scarce (Schwab and Malleret, 2020).

Waste management and reduction are increasingly an issue for government, businesses and citizens alike, and climate change is deemed a threat to our current way of life, economically and societally. This particularly echoes Schumpeter's "*gale of creative destruction*" (1942, p.82) where we must find new ways of living and therefore doing business in new more sustainable ways also to meet these economic and societal needs. As stated in Chapter 1 section 1.1, my motivating objective is the role entrepreneurship might play in the move to more sustainable living and this potential role is supported by the literature.

Sustainable development (Brundtland Commission, 1987) identifies the depletion in the world's natural resources as a consequence of traditional capitalism and consumerism, while also acknowledging the need for development in poorer nations. It therefore advocates a new means of development in poorer nations to lift the population out of poverty and raise living standards without exacerbating this pressure on natural resources. It proposes instead working towards a solution which would both protect natural resources from environmental degradation and increase living standards. It seeks to harmonise the traditional business goal of

increasing profit with additional goals of environmental protection and societal development rather than viewing these as three competing goals (Brundtland Commission, 1987). The Sustainable Development Goals, which superseded the Millennium Development Goals of the UN, are still in common usage and were the basis for discussions at the recent United Nations Climate Change Conference (COP26) in Glasgow (COP26, 2021).

Hart and Milstein (1999) and later Dean and McMullen (2007) invoke Schumpeter (1942) when they take the concept of entrepreneurship as the creation of new enterprises to fill gaps in the market and link it with sustainable development to form SE. They view the need for sustainability as a positive catalyst for such creative destruction and which creates new opportunities in business to solve the issues created by the traditional business model.

The phenomenon of SE being relatively recently recognised in academic literature remains largely unexplored at the meso-level. This is demonstrated in this table of extant literature (Table 3-2); it shows how the entrepreneurship literature focuses on the micro (individual and enterprise) and macro (policy and societal) level perspectives. SE is far less explored at the meso-level. Academics and practitioners with an interest in sustainability are interested in how sustainability can be encouraged, whether entrepreneurship is a good vehicle for this, and how it can best be supported and propagated.

The focus in the SE literature is overwhelmingly on recognising or teaching the skills and capabilities to operate successfully in the current economic system, and to the value of SE to address grand challenges of climate change and social

issues (SDGs, UN, 2015). There is little discussion about the issues SE faces. Audretsch et al. (2017a), among others, describe the lack of effectiveness of current policy tools for entrepreneurship in general. SE issues, raised in the Hoogendoorn et al. (2019) paper (summarised in Table 3-1), arise at the micro-level for sustainable entrepreneurs. I assert that the interaction with macro-level support such as policy (Johnson and Schaltegger, 2019) could be better facilitated at the meso-level but research to date at the meso-level is limited (see **Error! Reference source not found.**). An exploration at the meso-level could therefore prove invaluable. This SE meso-level focus holds potentially new and valuable contributions as to how to bridge the gap between the macro and micro-levels.

There are relevant insights from the history of entrepreneurship academic thought, the current literature streams within entrepreneurship and associated entrepreneurs. Following Thompson et al. (2011), while pertaining to the field of entrepreneurship and sharing similarities with other entrepreneurs, the SE phenomenon with its combination of triple bottom line goals at this time of great global change and uncertainty is worthy of separate investigation. The self-help groups investigated by Vadde and Ratnam (2014) and Nayyar (2017) indicate the value to SE of resource-sharing within community groups in a specific context. It is therefore of interest to consider this emerging phenomenon at the meso-level, which has been largely neglected, and may provide a means to solve the grand challenges global society currently faces (SDGs, UN, 2015).

Through my reading of collaborative business literature at the meso-level, cycling back to the data to see which was the most appropriate lens, I arrived at the

theory of communities of practice. I discuss the appropriateness of the alternative collaborative business lenses at the meso-level next, and the communities of practice literature next.

## 4 COMMUNITIES OF PRACTICE: A REVIEW OF THE LITERATURE

### 4.1 Introduction

In this chapter, I review the communities of practice literature in order to show that this is a useful lens through which to view SE at the meso-level, in response to my overarching research question. I start with a *definition* used in this thesis and an explanation of the *criteria* for a community to be recognised as a CoP (section 4.2), including a discussion CoPs as fora for situated learning (Lave, 1991) (section 4.2.1) and the evolution of CoPs in the literature (section 4.2.2). I next discuss CoPs in different industries and disciplines to help (section 4.3) to see what might be learned about the recognisable features of CoPs from the wider CoP literature to answer my overarching research question. I discuss the alternative meso-level collaborative concepts to demonstrate how I arrived at the CoP concept as the most appropriate (section 4.4) and conclude with a summary demonstrating that a CoP is a useful lens through which to view SE (section 4.5).

### 4.2 What is a Community of Practice? A Definition

Wenger (2011, p1) provides a definition which is used for the purpose of this thesis:

*Communities of practice are groups of people who share a concern or passion for something they do and learn how to do it better as they interact regularly.*

This definition is still used in the later work by Wenger and Wenger-Trayner (2015). These interactions do not need to be physical or organised meetings. According to Wenger (2011), communities of practice are informal groups bound

by commitment and expertise. They are a knowledge-based community who share a *domain*: having self-selecting membership, fluid leadership and being self-perpetuating. As such, no individual is in charge and there is no bar to entry. They may form and reform many times, in sometimes very different forms, almost to the point of not being recognisable as the same community. They can be nurtured and encouraged, as they often are within companies or industries, but members remain members only for as long as there is something they can give and/or receive from the community (Wenger and Wenger-Trayner, 2015).

To expand on the three criteria which determine what constitutes a CoP; firstly, there needs to be a *shared domain of interest*; secondly, a *community* which interacts and builds relationships; and lastly, *practices* whereby the participants are practitioners with information and resources to contribute to the community and are not just individuals with a shared interest (Wenger, 2011). It is important to note that *practices* might include *sharing best practice* but is not restricted to this meaning alone. Practices are therefore defined as all activities undertaken within the CoP.

A CoP differs from a *community of interest*, the latter of which often arises around a pastime or short-term cause, such as football fans of a particular club or a group wishing to save a local building. These differ from a CoP in that individuals may change their interests, or their goal is achieved, and the group disbands. There is very limited focus on the shared practices of such a group, the interest shared is of paramount importance, not the practices and knowledge shared. Wenger (2000) sees the difference as communities of practice being “*social learning systems*” as discussed in the next section of this chapter (section 4.2.1), as



opposed to merely a group of individuals with a shared interest. *Situated learning* in CoPs, which was at the forefront of Lave and Wenger's earlier work (1991), is still a key factor, albeit less prominently, in later writings by Wenger and Wenger-Trayner (2015). I show that it is this *situated learning* (Lave, 1991) and the wish to learn from one another, that brings individuals together and differentiates CoPs from other collaborative fora such as networks. This is important to address my research question as to how a CoP forms and the usefulness of this theoretical lens for SE.

#### **4.2.1 Learning in a Community of Practice**

As stated, CoPs form around a common *domain*, demonstrate shared *practices* and a sense of *community* (Wenger, 2011). Lave (1991) was particularly interested in the informal learning that occurred within such an environment, which he named *situated learning*. This is not a criterion for a CoP according to the authors but something that occurs tacitly as a consequence of *shared practices*. It does however differentiate CoP from other collaborative groups. An early use of the term, CoP, was by Lave and Wenger (1991); in which same seminal work, they discussed *situated learning* and the notion of *legitimate peripheral participation* within a CoP. The authors see it is as common, indeed the norm, for some members of a CoP to participate at the periphery, while others inhabit the central ground. They also state these positions change over time as the CoP membership changes and the focus of the CoP changes, and interactions between members change as a result. In this way learning is informal and unplanned and member participation relies on the issue being addressed.

The seminal works (Lave, 1991; Lave and Wenger, 1991) of CoP theory state that typically no formal roles are allocated to members due to the evolutionary nature of CoPs and how they self-form organically. However informal roles emerge over time and informal leaders will exist, not as leaders of the community but as leaders of learning. These roles are situated learning roles such as *masters* and *apprentices*. This terminology, which Lave (1991) and Lave and Wenger (1991) use, comes from the trade guilds they cite as the first communities of practice known in business. Here, teaching occurred informally “on the job” rather than in a classroom. In this CoP observed, there are both *masters* and *apprentices*, that is, teachers and learners. These roles are frequently interchangeable dependent on the topic of discussion and the knowledge bases and experiences of participants.

Learning in CoPs is informally acquired via shared practices, by newcomers known as *apprentices* from experienced members known as *masters*, rather than via formal academic learning and acquiring qualifications. *Legitimate peripheral participation* relates to how *apprentices*, by learning from *masters*, in time acquire sufficient knowledge to be viewed as *masters* themselves. A *community of practice* then is a group of people who share a *domain*, a *sense of community* and *shared practices* which facilitate this informal, (*situated*) learning between *masters* and *apprentices* (Wenger, 2011).

Learning is informal, it occurs via social interactions and storytelling (*shared practices*); that is to say, it is situated learning (Lave, 1991) dependent on the very existence of the CoP. This learning via the practices of the community can lead to positive outcomes in a CoP, even if only for participants to gain a sense

of personal growth and community with others (Wenger, 2000). Later works look at the application of the CoP concept in business contexts for problem-solving benefits of this learning and community (Wenger et al., 2002; Wenger et al., 2011).

#### 4.2.2 The Evolution of Communities of Practice Theory

Table 4-1 summarises the evolution of the conceptual theory, as described by the seminal authors, Lave and Wenger (1991), and includes their work in conjunction with other academic authors. The purpose is to demonstrate the shift in focus from describing how individuals join and participate in situated learning (Lave, 1991) to a focus on the value derived from membership of communities of practice and what this membership may look like.

**Table 4-1 Evolution of Community of Practice Theory**

Author and year of article/book	Key themes
Lave (1991)	Situated learning happens organically when people come together to as a community of practice
Lave and Wenger (1991)	A development of the concept: the interactions between masters and apprentices to share learning and how novices are initiated into the community
Wenger (1998)	How members legitimately move between peripheral and core participation
Wenger (2000)	Communities of practice flourish as social learning systems, informal and yet productive via organic interactions in developing the soft knowledge of participants
Wenger, McDermott and Snyder (2002)	How communities of practice can be applied within corporate businesses to develop solutions to issues identified by management
Wenger (2011)	A community of practice exists where there is a recognised domain, shared practices and a sense of community - which create an environment for situated learning to take place
Wenger, Trayner and de Laat (2011)	How value is created and derived from membership of a community of practice or network
Wenger and Wenger-Trayner (2015)	Participants may be members of multiple communities and thereby exist in a “constellation”

	of informal communities which are less structured but more productive in terms of learning than the traditional concept of networks
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Negotiating across community boundaries and communities of practice as a knowledge management form to be cultivated, but not directed, by management, are the subjects of later research in the communities of practice field (Wenger and Wenger-Trayner, 2015). Wenger and Wenger-Trayner (2015) build on the seminal theory of communities of practice and its ability to support knowledge sharing for practitioners. Communities therefore often constituted multiple and sometimes overlapping communities. As before, they do not have defined membership or boundaries.

The next section discusses the literature considering CoPs in different Industries and disciplines.

### **4.3 The Literature Exploring CoPs in Different Industries and Disciplines**

CoPs operating in different industries and disciplines have gained some academic interest. Company leaders may encourage and support the formation of groups for collaboration, but a CoP cannot be formally constituted or set rules and is effectively organic. Companies may support their creation in order to find solutions to problems or increase peer learning via interaction. They may not be known as a CoP, but by an alternative name such as a learning network or club, with scheduled or unscheduled interactions, physical or virtual, local or global. The community of practice evolves from these various collaboration groups. There are therefore many manifestations of communities of practice, but the three criteria stated, those of a *domain*, a *community* and *shared practices* should be

met (Wenger, 2011; Wenger and Wenger-Trayner, 2015). CoPs have been observed in a number of professions and domains, including: health (Bentley et al., 2010, Addicott et al., 2006); technology (Brown, 1998; Pan and Leidner, 2003). Most are convened by an organisation, institution or company but evolve into a CoP. These support knowledge transfer and a desire to solve problems collaboratively, *“bridging traditional rifts ... between research and practice”* (Bentley et al., 2010, p.3).

Notably, a number of papers discuss the role of communities of practice for knowledge transfer in healthcare (Bate and Robert, 2002; Bentley et al., 2010; Kislov, et al., 2011; Addicott, et al., 2006; Oborn and Dawson, 2010; Mørk et al., 2010). These papers build on the work of Lave and Wenger (Lave and Wenger, 1991; Wenger, 1998) to discuss how knowledge transfer occurs as the community provides learning of key terminology (for example, a CoP of cancer care specialists is observed) and assists in finding contacts beyond the original community to further the goals of community members (in their case improving patient care). The learning is however informal and takes place through shared practices via channels as meetings, forums and dedicated days.

Healthcare and education appear to have adopted the concept of communities of practice most loyally to the original concept. However, corporate businesses such as Xerox (Brown, 1998) have fostered such communities of practice to actively manage knowledge to solve technical problems with products or within information technology (Pan and Leidner, 2003).

The lens of a CoP has not been used previously in academic literature to directly view sustainability entrepreneurship, the closest paper to do so views general entrepreneurship as a CoP (Lefebvre et al., 2015). Lefebvre et al. (2015) investigated entrepreneurial networks as a CoP in a longitudinal study bringing together the processual and functional approaches to entrepreneurship via social interactions within these networks.

The relationship to networks and other types of collaboration groups at the meso-level is explored further next.

#### **4.4 Other Meso-level Collaborative Concepts: Networks, Ecosystems and Knowledge Clusters**

A number of other meso-level collaborative concepts are discussed in academic literature. I reviewed these in order to decide on the most appropriate meso-level lens for this study.

There are a number of other concepts which describe collaboration at the meso-level as an observed phenomenon (Christensen, 2006). A discussion of these follows to show the similarities and differences between these, and the distinctiveness of CoPs, and to support the use of CoP lens in this thesis. Wenger, Trayner and de Laat (2011) provide an explanation of the differences between communities of practice and networks in the definitions below. They assert that networks may exist within a CoP, and also independently. Both are a group where learning may take place but are defined separately as:

*The network aspect refers to the set of relationships, personal interactions, and connections among participants who have personal reasons to connect. It is viewed as a set of nodes and*

*links with affordances for learning, such as information flows, helpful linkages, joint problem solving, and knowledge creation.*

(Wenger, Trayner and de Laat, 2011, p.1)

and:

*The community aspect refers to the development of a shared identity around a topic or set of challenges. It represents a collective intention – however tacit and distributed – to steward a domain of knowledge and to sustain learning about it.*

(Wenger, Trayner and de Laat, 2011, p.1)

They view the two therefore as frequently, but not always, connected. They cite the example of: a network, where individuals are connected by a mutual contact but may know each other well, not well nor at all with no shared commitment; and a community, where the individuals feel strong commitment to a joint cause and are united by this, but may or may not have relationships amongst themselves, unless they are additionally part of a network. A community of practice may therefore benefit from a strong network embedded within it, which has both the structure and the commitment to support situated learning (Lave, 1991).

Networks, as described in the literature with regards to knowledge sharing and/or knowledge management (Birley, 1985; Hildreth and Kimble, 2004; Addicott, et al., 2006; Lefebvre et al., 2015), are the connections between an individual and others. They have multiple nodes and connections between those nodes, some connections stronger and some nodes closer together than others. The difference then is that a network is a group of people where learning may occur, whereas a

CoP has a shared identity and intention by members to learn and support the learning of others. CoPs are “*social learning systems*” (Wenger, 2000).

Davidsson and Honig (2003) discuss the importance of *human capital* and *social capital* in a variety of contexts. They assert that *human capital* is the knowledge and skills of individuals, which are an invaluable resource to organisations. They define *social capital* as the relationships and means by which *human capital* is shared as a resource. They state however that *social capital* is the greater of the two assets to a business, as it is via *social capital* that those *human capital* assets are realised and synergies created to form organisational competencies. While Davidsson and Honig (2003) do not refer to specific types of learning systems to realise *social capital*, these ideas are helpful to this study where we consider CoPs a *social learning system*, according to Wenger (2000).

In addition, associated literature discusses *ecosystems*, which are defined as “*a complex network or interconnected system*” (Oxford Dictionary). It cites the example of Silicon Valley as an ecosystem which fosters innovation and development of a sector via the interconnections of the associated members. Attempts have been made to replicate or foster such a successful ecosystem as Silicon Valley for different industries and different areas, often with extensive financial support from government, with varying results. Members aspire to be part of a successful and well-known ecosystem, a network of networks, but without the sense of shared identity and a willingness to propagate learning of a CoP, networks and ecosystems can be more prone to people “moving on”, and business issues important to members not being resolved.



An early reference to the term *entrepreneurship ecosystem* appears in the Harvard Business Review for the first time in 2010 (Isenberg, 2010) in an article detailing what works and does not work so well and also discusses industry incubators and clusters, and the limited evidence at that time of the success of either. The issue identified by Isenberg (2010) is the over-involvement of government and funding given either, without sufficient guidance/direction, or overregulation with too little tolerance of failure leading to risk-averse, anti-entrepreneurial practices. The lens of an ecosystem is similar to a CoP in that the stakeholders are interdependent and mutually supportive with symbiotic relationships, whether organic or supported by government policy; government support is not limited to funding and a financial environment that does not penalise entrepreneurship, but also includes changes to tertiary education and other positive inputs to the environment to provide support (Fürlinger et al., 2015). This thesis looks to consider SE specifically and to do so collectively, but via a CoP, with its additional focus on shared practices and situated learning (Lave, 1991), going beyond the symbiotic relationships in an ecosystem.

Spigel (2017) explores entrepreneurial ecosystems specifically, looking at how government policy attempts to foster ecosystems where entrepreneurs and associated stakeholders will develop their own networks and support systems. The goal is to reduce entrepreneurial reliance on grants and other government incentives while encouraging economic growth via new enterprise generation. Key considerations are that the benefit of these economic gains is more likely to be felt within the same country as opposed to abroad, and such enterprises also provide local employment.

Spigel and Kitagawa (2020) then discuss what has worked and what has not, using examples from the UK and Japan for comparison. The difficulty for many governments is that it is very difficult at the macro-level to encourage individuals from the micro-level, to build networks and then morph these into networks of networks (i.e. ecosystems), especially within relatively short timescales. A CoP differs in terms of a shared community and commitment to learning (Wenger et al., 2011).

An interesting example in the literature is Lefebvre et al. (2015), who follow a group of entrepreneurs over four years and show how an entrepreneurial network can develop to form a CoP over time. They followed a formal entrepreneurial network and demonstrate how such a network can become a CoP, developing strong mutual relationships and a sense of community, and an overriding shared commitment to the domain of entrepreneurship. They assert that it is these two factors which lead to network members sharing practice through interactions, having built trust and a sense of community.

Another form of group that can form is a knowledge cluster, which while it is a group concept, it focuses heavily on the sharing of knowledge, or shared learning, more than the individuals it comprises. However it differs from CoPs in that there is limited focus on the individuals within the cluster, their interactions and the ways the soft knowledge is shared between individuals. Knowledge clusters literature draws on research conducted (Tallman et al., 2004) about how specific industries may choose to cluster in specific areas for ready access to knowledge sharing opportunities. Tallman et al. (2004) have explored the predominance of Formula 1 motorsport and associated businesses in the UK in the vicinity of the

annual Grand Prix event site. These knowledge clusters share some commonalities with ecosystems but, while they are similar, neither have the same sense of community as CoPs. Knowledge clusters are often geographically fixed, and the focus is on gaining competitive advantage for clusters and firms, rather than sharing practices and learning beyond a business interest.

For the purposes of SE, it is rare that such physical knowledge clusters exist for individual independent entrepreneurs as they presuppose a predominance of SE in one geographic area which is probable in an industry but less so in multiple sustainable enterprises which may straddle multiple industries or indeed provide a wholly unique product or service. Sustainable entrepreneurs may work with others in an industry cluster as part of the circular economy, but this often is industry specific and does not provide learning for the phenomenon of SE per se as they do not face the same institutional challenges (Hoogendoorn et al., 2019). This geographical dispersal is a primary driver for sustainable entrepreneurs not working within formal physical networks but instead constituting a CoP.

Additional to this situated learning (Lave, 1991) via social networks and/or communities in practice, there is also the consideration of knowledge spillovers. Where incubators are created, they are often in or near universities precisely to take advantage of the potential opportunities being created but not being exploited due to lack of capacity, entrepreneurial skills or resources (Audretsch and Keilbach, 2007b).

Hamilton (2011) explores situated learning (Lave, 1991) within a family business context, where the family and the business are considered as overlapping

communities of practice, and this echoes Wenger and Wenger-Trayner (2015), who refer to a “*constellation of communities of practice*” (p.4). They state that a CoP may not be heterogenous and bounded, it may comprise of multiple stakeholders and indeed overlapping communities of practice which is of interest to my exploration of the CoP concept to SE. The SE CoP may be unbounded and overlap with other CoPs.

Table 4.2 summarises the literature on these different types of collective systems at the meso-level. It is evident from this that CoPs have certain distinctive characteristics. These revolve around the strong commitment to the domain which overrides a need for geographic proximity and builds a very strong sense of community, commonly absent in the other types of groups.

**Table 4-2 Comparison of Communities of Practice with Networks, Ecosystems and Knowledge Clusters**

	<b>Networks</b>	<b>Ecosystems</b>	<b>Knowledge clusters</b>	<b>CoP</b>
<b>Explanation of collaborative groups</b>	Connections between individuals	Network of networks	Often regionally fixed. Revolves around an industry or business specialism	Individuals with a shared commitment to a domain, sense of community and shared practices
<b>Membership types</b>	Business: field/industry contacts plus institutions such as banks  Plus informal: friends and family	Business mainly: field/industry stakeholders	Business mainly: field/industry is key, stakeholders secondary. Often fixed geographical location	Shared commitment so often a “cause”; businesses aspire to develop a culture around which a cop can be fostered
<b>Geographic proximity</b>	Stronger when proximity: networking clubs tend to be face to face	Stronger when proximity: networking clubs tend to be face to face	Usually	No, shared commitment to a domain is paramount
<b>Sense of community</b>	No	No	No	Yes
<b>Key authors cited</b>	Birley (1985) Hildreth & Kimble (2004) Addicott et al. (2006) Lefebvre et al. (2015)	Spigel (2017) Spigel & Kitagawa (2020)	Tallman et al. (2004)	Lave & Wenger (1991) Hildreth & Kimble, (2004) Wenger et al. (2011)

#### **4.5 Situational Factors Affecting Communities of Practice**

The communities of practice literature also explores motivators, barriers and enablers to forming such a community. Ardichvili (2008); Ardichvili et al. (2003) and Wasko and Faraj (2005) explore the specific cultural influences on knowledge sharing through online communities of practice, the focus on such communities highlights the importance of trust in an environment where face-to-face contact cannot occur.

Knowledge management and fostering communities of practice as conduits to share knowledge is explored by a number of authors, (Wenger, McDermott and Snyder, 2002; Sharratt and Usoro, 2003) with the perception of the knowledge held within the community being a key motivator for members to contribute.

Knowledge exchange in the context of trust and community is of interest in considering the appropriateness of a CoP lens to view actors in SE, as opposed to a different meso-level collective group concept. In SE, individuals are frequently geographically dispersed as explained above. While a criticism of some knowledge clusters is that they become too inward looking, creating a local culture from the many who move to reside there, and a transaction approach to knowledge transfer, this is not the case for CoPs. CoPs can have members from different cultures and countries, who, despite possible cultural and geographical barriers, are motivated by a commitment to a domain and a sense of community to share knowledge to overcome shared perceived institutional barriers to SE (Hoogendoorn et al., 2019).

## 4.6 Chapter Summary

I conclude that a review of the communities of practice literature indicates that a group of people which meet the criteria of a shared *domain*, forming a *community* and *sharing practice* can be viewed as a CoP. Additionally, *situated learning* takes place within a CoP between members. A CoP provides a lens to view the meso-level interactions of individuals.

It is evident from the above literature review of communities of practice (section 4.3) that there has been limited exploration of the applicability of communities of practice theory to entrepreneurship, let alone the specific field of SE. Table 4-3 summarises the key themes relevant to this thesis.

**Table 4-3 Themes from Communities of Practice Literature and Implications for This Thesis**

<b>Theme</b>	<b>Authors</b>	<b>Implications for this thesis</b>
Definition of what is a community of practice and criteria	Lave and Wenger (1991); Wenger (2011)	A community of practice, has a clear domain, a sense of being a community, shared practices, which promote situated learning
Knowledge sharing can be fostered in specialist medical communities of practice to bring together medical and non-medical practitioners to aid better patient outcomes; it can also be used in other fields by bringing together individuals for disparate areas with different skill sets and knowledge to solve problems	Bate and Robert (2002); Bentley et al. (2010); Kislov et al. (2011); Addicott et al. (2006); Oborn and Dawson, (2010); Mork, et al. (2010)	Communities of practice can be constituted of not solely “specialists” but other community participants who have relevant knowledge and skills to contribute and problem solve
Entrepreneurship network as a community of practice	Lefebvre et al. (2015)	Entrepreneurship networks can develop over time to meet the criteria to be considered as a community of practice, forming via interactions a sense of community and commitment to the domain and sharing of practice

Table 4-4 summarises the academic literature reviewed in Chapters 3 and 4.



**Table 4-4 Summary of Secondary Literature Review**

Academic field	Key learnings	Papers reviewed (see References list)
<p>Entrepreneurship, including specific types of entrepreneurship: see Table 3-2 for greater detail</p>	<p>Different academic schools of economics define entrepreneurship differently. The definition used for the basis of this thesis is derived from a synthesis of these schools of thought. It takes the concept of Schumpeterian creative destruction whereby capital renews itself according to changing societal demands from the German school and how the market is self-regulating from the Chicago school. It also considers the negotiated exchange of labour and resources pushing boundaries in the Austrian School; and the concept of entrepreneurship driving innovation and novel enterprise forms in the German school: <i>“Entrepreneurship... is the creation of new organizational forms in which the virtual becomes necessities working on the fringe of established orders, threatening as much as enhancing the enterprise economy.”</i> (Farias et al., 2019, p.2).</p> <p>More current discussions of entrepreneurship develop earlier threads of functional versus processual entrepreneurship; whether focusing on the traits of successful entrepreneurs to maximise or create business opportunities or the processes which facilitate these in the business environment. In this thesis, I look to move beyond this focus on the interaction between the individual micro-level and business environment at the macro-level and explore the meso-level.</p> <p>Via the associated fields of green entrepreneurship, ecopreneurship, social entrepreneurship, we arrive at the definition used in this thesis for sustainable entrepreneurship:</p> <p><i>“Sustainable entrepreneurs destroy existing conventional production methods, products, market structures and consumption patterns, and replace them with superior environmental and social products and services.”</i> Schaltegger and Wagner, 2011</p>	<p>Knight (1921); Friedman (1970)</p> <p>Menger (1871); von Mises (1912); Hayek (1931); Kirzner (1973; 1979)</p> <p>Schumpeter (1942, 1947); Drucker (1985, 1992); Kuratko (2009, 2011)</p>
<p>Communities of practice: see Table 4-1 and Table 4-3 for greater detail</p>	<p>The communities of practice literature develops over 24 years from a predominant focus on the learning between <i>masters</i> (teachers) and <i>apprentices</i> (learners) that occurs within a community with a shared domain, through to a broad definition of what may constitute a community of practice where informal learning takes place.</p> <p>This thesis uses a synthesis again of these papers to create a working definition of communities of practice as follows: A community of practice meets the criteria of a being a community or wider <i>constellation of communities</i>, with a shared <i>domain</i> and shared <i>practices</i>. Learning takes place within the community between members via these shared practices and interactions.</p>	<p>Lave (1991); Lave and Wenger (1991); Wenger (1998); Wenger (2000); Wenger, McDermott and Snyder (2002); Wenger (2011); Wenger, Trayner and de Laat (2011);</p>

		Wenger and Wenger-Trayner (2015)
Ecosystems and networks	Entrepreneurial networks are shown to have the potential to develop into a community of practice by Lefebvre et al. (2015); such networks are an invaluable resource of contacts to network members but differ from a community in that the bonds between members are often one person to one person in a range of chains or “spoke and wheel”. The relationships remain largely more formal and business-like in nature and a sense of community is absent, whereby reciprocal friendships and social ties exist. An ecosystem provides a fuller supportive environment and tend to arise as business clusters in a geographic location with businesses demonstrating mutual dependence and symbiotic relationships. Members may develop a sense of belonging, but again ecosystems are predominantly business- rather than socially led, so a sense of belonging to an industry rather than a social domain prevails.	Lefebvre et al. (2015); Thompson et al. (2017)
Multilevel perspective	Geels (2002, 2011) discusses a multilevel perspective to support socio-technical transitions to sustainability as a hierarchy: linking micro-level niches of innovations to the technological regime at the meso-level which absorbs such niches and influences the external macro-level landscape of political, economic, social and other factors. Johnson and Schaltegger (2019) focus this multilevel perspective on sustainable entrepreneurship, considering the human perspective and interactions rather than viewing the system as a technological system.	Johnson and Schaltegger (2019); Geels (2002, 2011)

## 5 METHODOLOGY

### 5.1 Introduction

This chapter sets out the methodology used for this study. Following my motivating objective, it demonstrates how while participating in the EU-InnovatE project, I observed an organically emerging CoP, to arrive at the overarching research question and three research questions *abductively* (Peirce, 1877; Campos, 2011; McAuliffe, 2015). I did so from both the data being collected, and with reference to the literature being reviewed.

I begin by setting out my assessment of the philosophical perspectives (section 5.2) and justification for my choice. I then proceed by discussing theories of knowledge building and how I arrived at those used in this study (section 5.3). I next summarise the two chapters of academic literature review (Chapters 3 and 4), to demonstrate how this research builds upon what is already known and contributes to the relevant literatures (section 5.4), as is discussed further in Chapter 6.5. I continue by describing how the primary research was conducted, why the method adopted was chosen, and how this primary research relates to the research questions proposed and the literature reviewed with relation to sustainable entrepreneurship, communities of practice, and the meso-level.

As stated in Chapter 1 section 1.7.3, and detailed in Chapter 2, my involvement with the CoP came about through participating in the EU-InnovatE research project (2017) which followed the earlier research project of SPREAD (2012). This participatory experience raised a number of questions, when observing this group of heterogeneous individuals with their own SE issues and/or prosocial commitment, who provide support and advice to one another, independently of the EU research project. Firstly

could the group be recognised as a CoP, and secondly could it contribute to our understanding of, and maybe the development of, SE? This led me, ultimately and through an abductive process (Peirce, 1877; Campos, 2011; McAuliffe, 2015), to this study of SE as a CoP. I discuss this research process in detail (section 5.5) with subsequent focus in sub-sections on different aspects of the primary data collection. This chapter details the sampling (section 5.5.1) used for each WP6 data collection episode (section 5.5.2) including participant tables (section 5.5.3), the WP6 data collection episodes each described in more detail in their own dedicated sub-section (section 5.6), the data gathered (section 5.7) and the method of data analysis used (section 5.8).

I begin this chapter with a discussion of the philosophical approach adopted.

## **5.2 The Philosophical Research Approach**

There are different philosophical perspectives that are to be considered when undertaking research as the perspectives underpin and guide the primary data collection (Tuchman, 1994). An exploration of these perspectives follows, together with their position within the philosophies of *ontology* and *epistemology*. *Ontology*, as espoused by Heidegger (1962), looks at the nature of reality. That is to say, the relationships between data; how things are and come into existence, often seeking to classify items and create typologies. These are observable objects and activities. *Ontology* translates from Latin as the “science of being” (Lorhard, 1606) who built on the work of the early Greek philosophers, Aristotle and Plato (Shields, 2020). *Epistemology*, developed by Descartes (1641) and Kant (1781, 1787), is the theory of knowledge, using reason to understand reality, originating also from the work of the early Greek philosophers, Aristotle and Plato (Shields, 2020).

This thesis naturally draws on both: from the *ontological* perspective, I have considered how reality “is”. In particular, I have considered whether reality, which centres humans whether as entrepreneurs or simply as individuals, is not limited to the reality of what can be experienced and verified through the senses. Instead, reality in this context is open to wider interpretations, building on our broader understanding of human behaviour and communication.

A number of philosophical perspectives exist within both the ontological and epistemological approaches. I summarise these in Table 5-1 and then discuss them in turn.

**Table 5-1 Research Philosophical Perspectives**

<b>Perspective</b>	<b>Definition</b>	<b>Advantages</b>	<b>Disadvantages</b>
Positivism	<i>Positivism is the name for the scientific study of the social world. (Turner, 2001)</i>	Proves hypotheses; avoids speculative thought	Only <i>a posteriori</i> knowledge may be reductive
Interpretivism	<i>The term interpretivism refers to epistemologies, or theories about how we can gain knowledge of the world, which loosely rely on interpreting or understanding the meanings that humans attach to their actions. (O'Reilly, 2009)</i>	Includes <i>a priori</i> knowledge	May be less credible to those who favour a scientific approach to social sciences
Constructivism	<i>Constructivism is the recognition that reality is a product of human intelligence interacting with experience in the real world. As soon as you include human mental activity in the process of knowing reality, you have accepted constructivism (Carson, 2005)</i>	Includes <i>a priori</i> knowledge	May be less credible to those who favour a scientific approach to social sciences

One perspective is described as *epistemological positivism* (Comte, 1855). Comte (1855) argues that all that is experienced directly via the senses can thereby be *proven* and so is valid knowledge, whereas that which cannot, such as intuition or prior insight, is not a valid approach to developing knowledge. In *positivism* (Comte, 1855), a single scientific method for gathering data is the only acceptable method to develop knowledge. Comte (1855) is recognised as the first sociologist, with a philosophical position close to Kant's Critique of Pure Reason (1781) who also shared the view that knowledge had greater value when gained *a posteriori* (Kant, 1781, 1787), that is, gained empirically via new observation and experimentation, rather than knowledge which is independent of experience, known as *a priori* knowledge following Kant (1781,1787).

*Positivism* (Comte, 1855) may have seemed then to be a good starting point for my empirical research, which was based on observation and therefore first-hand "experience" to build knowledge. However, as discussed in the literature review of entrepreneurship as a social science, theoretical concepts such as communities of practice and non-experiential aspects such as the importance of motives and values are also considered in the development of entrepreneurship knowledge in an epistemological way.

An *interpretivist* philosophy (Erickson, 1986) was also considered. Having observed and recorded the community members' comments in an exploratory approach, I then interpreted them to make sense of what their motives and personal values are. This was of far more interest to this study than the outputs of the organised EU research events. Through this interpretation I could identify what is occurring within the community, and what could be perceived to result from these *practices* of the

community. The qualitative research method is thereby more insightful due to the social interactions between members of the CoP, including myself also as a member of the community and a participant observer. However my role was not independent to the community as I was an active participant. Indeed, if I had not participated in the discussions and activities of the group, my presence may have inadvertently affected the natural discourse negatively and introduced bias into the data collected.

*Interpretivism* (Erickson, 1986) therefore acknowledges multiple versions of reality. It is not however the core philosophy underpinning my qualitative primary data collection method. This is because I could not arrive at clear assessments about the values of the participants in more detail than those that they espoused verbally or demonstrated through their actions. *Social constructivism* (Foucault, 1969) therefore was adopted throughout this study. This perspective fits both with the qualitative methods of data collection used, and the application of the CoP theoretical lens to understand the interactions of this group of people better. These interactions were the focus of my data collection as notes taken as a participant observer.

*Epistemologically*, I have looked to better understand the meaning behind the interactions of community participants to decipher the relationships between them. I have used existing theories, notably those of SE, CoPs and the multilevel perspective. These help us understand the meaning behind these observable interactions, to create greater knowledge. My implicit understanding of language and the nuances in decoding words, more so when some participants are not using their first language, both adds to greater understanding, and also inevitably introduce bias. I have interpreted that data to provide a construct to interpret and understand this reality (see Figure 6-1 in Chapter 6). In terms of the observed SE CoP, in epistemologically noting



what people physically did and said, the CoP is a social construct. This leads me to consider social constructivism as the guiding perspective rather than positivism.

Following a social constructivist approach, I sought to additionally understand from conversations and discussions. These sometimes included recounting a previous experience or a story, and the motives and opinions of the various stakeholders allied with SE. These stories were recounted and could not always be just experienced or observed first-hand. Opinions and viewpoints are inherently open to bias, moulded as they are through multiple experiences which in turn are shaped by personality and personal values. However, they also provide greater insight than that which can only be observed and recorded first-hand as fact. As such, a purely *positivist* philosophy of causal relationships is not the approach taken in this thesis. This thesis instead seeks to explore a *social construct* of a community, with the multiple perspectives of sustainable entrepreneurs and allied stakeholders, who form part of the CoP observed, to draw conclusions and build knowledge.

I assert that the SE CoP can be best understood from an analysis of people's perceptions, stories, experiences. That is to say, from their lived experiences collected as data from what they say and what they are observed doing. *Constructivism* (Piaget, 1967) asserts that knowledge is constructed from an understanding of the interactions of people, via multiple methods generate knowledge rather than a single scientific method. *Constructivist epistemology* was first described by Piaget (1967) in his work to consider Aristotle's philosophical work in the context of the radical and fast-emerging scientific knowledge development in the 19<sup>th</sup> and 20<sup>th</sup> Centuries. It was developed further notably by Foucault (1969).

This philosophical position asserts that the method of knowledge generation affects its validity, that is, knowledge is generated via experience. In the case of this thesis, participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) holds greater validity as learning and change occur during the process, than indirectly experienced scientific phenomenon. *Social constructivism* (Foucault, 1969) focuses on the interactions within a group to create social reality specifically. This is the perspective that best guides this thesis.

### **5.3 Theories of Knowledge Building and My Research Approach**

As stated, my motivation for this thesis (section 1.1), led me *abductively* (Peirce, 1877; Campos, 2011; McAuliffe, 2015), to the CoP theory (Chapter 4), as a useful lens to view SE, while collecting the data as part of the EU-InnovatE project (2017) (Chapter 2).

During the data collection it became clear that this multi-stakeholder group of individuals I was collecting data from at different events, shared a strong sense community. This was the case even if their reasons for participating, their stakeholder roles and their contributions, differed greatly. They formed or had existing relationships that lasted beyond the formal data collection episodes of WP6, choosing to return or to engage with other participants via social media or direct communications. The visibility of a community, of such fellowship, appeared significant and had not been a part of the existing EU research project. I therefore began to explore the literature relating to communities further, specifically the CoP literature (Chapter 4).

The data collected was qualitative, following this *constructivist* philosophical approach to construct this social reality. It comprised collecting data via participant observation at WP6 data collection episodes such as events and interviews and wider EU-InnovatE

events, via continuous research. It was important to me to reflect and consider the importance of what I recorded. The thoughts that were triggered as a result held value too, rather than attempting to observe the respondents in a value-neutral manner closer to the *positivist* philosophy previously discussed. This over time and, with reference to the literature on communities of practice (Chapter 4), led me to develop the research questions.

Following Campos (2011) and McAuliffe (2015), an *abductive* approach was taken to the data collected by observation and the literature, iteratively cycling between the two, to arrive at my research questions. My observation was that this group of sustainable entrepreneurs and allied stakeholders allowed me to view a CoP and I developed my research questions around that.

*Abductive* reasoning (Peirce, 1877; Campos, 2011; McAuliffe, 2015), despite leading me to the literature of communities of practice, was not used to analyse the data in this exploration of a CoP. My reasoning for this choice of data analysis approach is that I am not looking to draw probable singular explanatory conclusions from what is demonstrated. I am looking simply to make broad generalisations from these observations of the CoP. Equally, there are scarce existing theories to build upon to create new theory in these fields nor to verify a hypothesis, and so *deductive* reasoning (Johnson-Laird, 1999) is not appropriate. SE is an emerging phenomenon and a communities of practice lens has not been used previously so I deemed an *inductive* approach according to Hume (1739) and Goodman (1951) appropriate for the data analysis stage. In this way, I aimed to arrive at useful insights and be able to make recommendations for practitioners as a result.

I was also aware that what happened within the CoP was both observed by me and changed by my participation. As a researcher, I took an *insider learner* view (Blaikie, 2007), immersed in the environment within which I was gathering data. I personally developed my understanding of the field and learning via the process. I aimed to not bring explicit subjectivity or previously fixed views to the data collection. I acknowledge however, the latent views and tacit knowledge I was likely to inadvertently bring to the data collection process. Following Spradley (1980), I followed the participant observation theory of notetaking and reflection, whilst also being aware that my participation was part of the data creation. I was also fully immersed and therefore adopting an active participation role, according to DeWalt and DeWalt (2011). To guard against overt bias, I involved my panel of supervisors in some of the analysis sessions to validate my initial findings and to cross-check the data.

As an active learner too, following Blaikie (2007), iterative learning and thus development through an inductive process influenced the design of the learning events through the course of the data collection. Paul (1953; p69), an anthropologist, succinctly summarised the conflict as: "*Participation implies emotional involvement; observation requires detachment.*"

DeWalt and DeWalt (2011) discuss this conflict in some detail. The researcher should reconcile these contradictory forces of desired rigour while acknowledging the inability to maintain absolute objectivity. One means is to be totally immersed in the activities within the community but then take moments to detach and reflect. DeWalt and DeWalt (2011) argue that detached observation can lead to less natural interactions as individuals become conscious of being observed. It may lead to less valid and genuine responses from other participants, than taking an *active participant* approach (Spradley, 1980).

Russell (1991) and Bailey (2006) both describe the method of *field research* in depth. Bailey (2006, p.2) defines *field research* as “*the systematic study, primarily through long-term, face-to-face interactions and observations, of everyday life*”. This research study is not strictly field research, as the data was gathered largely at organised community events, and so is not truly *naturalistic enquiry* (Guba and Lincoln, 1982; Salkind, 2010). The data was gathered where the CoP came together to discuss key issues they faced. It shares some similarities with naturalistic enquiry in that the CoP came together and data gathered included informal data, whereby I recorded my thoughts sparked by conversations held over breaks. The CoP was therefore experienced and fully participated in by myself, as an active participant. I gathered data in the footsteps of DeWalt and DeWalt (2011), who explore and describe the method of participant observation in detail, how to take notes of observations, reflect upon these and cluster key themes.

Gioia et al. (2012) discuss rigour in inductive data analysis and how data analysed inductively does not aim to provide “proof” as it is qualitative not quantitative in nature. It aims to provide insights formulated from the stated views and feelings interpreted by action researchers. Having considered alternative methods such as narrative analysis, thematic analysis (Boyatzis, 1998) seemed more appropriate for participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) where the data collected is a mix of transcripts and notes. Gioia et al.’s (2012) method of thematic analysis allows for clear clustering of themes as it is a *reflexive* thematic analysis and reflexivity (Umpleby, 2010; Alvesson and Skoldberg, 2018) fits well with the reflection required in the participant observation data collection method (Spradley, 1980; DeWalt and DeWalt, 2011).

The concept of *reflexivity* (Umpleby, 2010; Alvesson and Skoldberg, 2018) acknowledges that the individual researcher is part of the system and cannot be detached from it. This goes some way to address the inherent conflict of participant observation also acknowledged by DeWalt and DeWalt (2011). An acknowledgement of bias by the researcher is made and accounted for, as much as is possible. Equally being an external observer may add a lack of authenticity and introduce a different form of bias. I sought to maintain rigour in my research by collecting data systematically at each event and reviewing my notes objectively for key recurring themes.

An iterative approach was a key part of the participation observation method adopted. This involved making connections between comments made in different contexts and developing understanding from these connections, or themes to build on in the next stage of data collection. The iterative nature of this, exploring the connections and mutual reinforcement between these is known as *reflexivity* (Popper, 1957; Wilson, 2004; Umpleby, 2010; Alvesson and Skoldberg, 2018). This was helpful in considering and reconsidering the data in light of further data collected to continually build on the previous data collection episodes.

Multiple perspectives exist in the philosophy of social constructivism (Piaget, 1967; Foucault, 1969). Here, knowledge is “truth” constructed via our interpretation of it. The view of *polyphony*, is accepted, that is, “many voices” (Bakhtin, 1984), even if at times they provide conflicting views. Indeed, such contradictions can add to the richness of the data and raise questions for further exploration. In this thesis *polyphony* is accepted rather than a single voice prioritised, “proven” or discounted.

As stated above, the data analysis method of thematic analysis (Boyatzis, 1998) rather than narrative analysis is employed in this thesis. This is due to the participant observation approach (Spradley, 1980; DeWalt and DeWalt, 2011) in multi-stakeholder events with limited collection of individual narratives. This thesis does not therefore include *discourse analysis*, as expounded by van Dijk (2001). The *polyphonic* approach (Bakhtin, 1984), however, sits well with the sense of a CoP, where *master* (teacher) and *apprentice* (learner) roles (Lave and Wenger, 1991) during knowledge exchange are interchangeable and a sense of egalitarianism is a core value for many members of this CoP. It also allows for both views of a gradual shift to greater sustainability and those who call for a radical societal change and a paradigm shift (Kuhn, 1962). I next detail the secondary research undertaken, which underpinned this study.

#### **5.4 Secondary Research within the Thesis**

As expanded upon in Chapters 3 and 4, having already collected significant data via participant observation at a number of primary data collection episodes, I undertook a secondary research project. This was in the form of academic literature reviews of both SE and adjoining entrepreneurship literature, and CoP and alternative meso-level types of groups. The purpose of the sustainable entrepreneurship literature review was two-fold: to understand what is already known about sustainable entrepreneurship, and to see the influences of related literature from the associated fields of general entrepreneurship, social entrepreneurship and eco-entrepreneurship, including literature under synonym names such as green entrepreneurship. The purpose of the CoP literature review was also two-fold: to understand what is already known about CoP literature and to consider the fields of alternative meso level collaborative, such as networks, ecosystems and knowledge clusters to ensure that

CoP is the most appropriate concept for this study. This secondary literature provided both contextual clarity of SE, and abductively led to my use of the CoP concept in this study (see Figure 5-1).

The process I followed was a qualitative review method, because the purpose of the review was to gain insights as to what is known in the existing fields. On this basis, I deemed quantitative methods not to be appropriate for this study, such as content analysis, which identifies repetitions of words and themes, nor bibliometric analysis where numbers of citations are noted. The number of citations was not a criterion for exclusion, because the SE literature is an emerging field and I did not want to rule out papers with potentially useful insights. A systematic literature review process was not followed. Instead, I used the qualitative review method of thematic analysis to identify key themes and make connections across different types of entrepreneurship literature. I firstly used the EBSCO online database to conduct an online journal search for papers using the following keywords in the fields Title, Abstract or Body of Text:

*Sustainable entrepreneurship, entrepreneurship for sustainability, sustainable enterprise, sustainability entrepreneurship* and variations of these such as by using *sust\** and *ent\**.

This produced a large number of returns (33,012) which I then looked through the first 200, discarding those that used *sustainability* or *sustainable* to mean long-lasting rather than a triple bottom-line objectives, I also discarded those which covered other subjects more than the concept of sustainable entrepreneurship. My inclusion criteria was therefore wide and I looked at all the remaining papers. The overlap between social and sustainable entrepreneurship was also identified through this initial review of the sustainable entrepreneurship literature. I then read the abstract of each before



making a judgement as to whether to read the whole paper. I did not consider those papers published in languages other than English.

I then repeated the process with the keywords of *eco-entrepreneurship* (3 returns), *ecopreneurship* (17 returns) and *green ent\** (62 returns) in order to focus on the environmental entrepreneurship literature, again discarding those returns which held no relevance. I then repeated the process with the keywords of *social entrepreneurship* and *social ent\** (2829 returns) in order to focus on social entrepreneurship. Again, I included as many papers within the review as had direct relevance to the topic.

I considered the number of citations and where the paper had been published but did not rule out papers with limited citations or published in lesser-known journals automatically. I made this decision because the field of sustainable entrepreneurship is still emerging, and papers may well be of value but appear in more niche journals which are less well-ranked. I then turned my attention to the field of communities of practice, conducting a search using the keyword strings *community of practice* (2829 returns) and *communities of practice* (2314 returns) to review papers, initially via the abstracts again. I did the same for the associated areas of *networks*, *ecosystems* and *knowledge clusters*.

During each of these literature review procedures, I also considered other papers that were frequently referenced by the authors whose papers I was reading, and other authors to whom colleagues, fellow academics and my supervisors referred me. The process was not a linear, one-off procedure; I went back to the same process to identify newer papers in both the fields of sustainable entrepreneurship and

communities of practice and again at various points during writing up my thesis to identify more recently published journal articles which might be of interest.

Firstly, I reviewed then the extant literature on entrepreneurship, from its early history as a phenomenon through to the present day. I also reviewed the associated entrepreneurships of environmental, public, social and sustainable, which all informed my understanding of the emerging phenomenon of SE. This gave me a stronger understanding of the historical development of the economic interpretation of the phenomenon of SE. The papers reviewed and the findings are summarised in Table 3-2. Of particular note, were the functional and processual streams which had appeared to me to be separate from one another. On further reading, however, the functional stream looks at the micro-level, that is individual entrepreneurs, whereas the processual stream looks at the macro-level, the wider interactions between entrepreneurial activities and the economy. Both streams, or levels, therefore, coexist within the phenomenon of entrepreneurship. The entrepreneur may well be a "*lone hero*", an agent changing their context and environment, but they are equally part of a system with multiple opposing forces maintaining equilibrium in both the economy and society (Gartner, 1988).

Secondly, in line with abductive reasoning (Peirce, 1877; Campos, 2011; McAuliffe, 2015), I had become aware through my reading that the CoP concept seemed to apply to this group of sustainable entrepreneurs and their allied stakeholders. Consequently, I reviewed the literature of group concepts including CoP, with an open mind, to confirm or discard this idea, and found that the community did indeed meet the criteria of a *community*, with a clear *domain*, and *shared practices*. I found this CoP view to be an interesting and lesser explored field with regard to entrepreneurship. The data also indicated value in this CoP approach, with members demonstrating a strong

commitment to the cause of sustainability. The CoP concept helps us to explore the meso-level between individuals and government, and indeed between the economic literature threads of a "*lone hero*" versus the complex economy in constant flux (Gartner, 1988).

The CoP concept, of all the alternatives considered, resonated most clearly with what I observed via the EU-InnovatE project (2017) (Chapter 2). The members of this observed community of practice were brought together initially by the EU-InnovatE project for research events but developed into a community of practice over the period of the project introducing new members, and thereafter, remaining in contact via various social media and direct means such as email and telephone. As with other communities of practice observed in other contexts such as healthcare and industry in the literature, such as Bentley et al. (2010), while an organisation convened opportunities for collaboration, the community of practice is ultimately self-forming. The evolution of the communities of practice literature is shown in Chapter 4 at Table 4-1. A comparison of the alternative meso-level group concepts is shown in Chapter 4 at Table 4-2. This comparison is developed at Table 5-2 to demonstrate the appropriateness of the CoP concept for this thesis, with italics used to show additions. All academic literature reviewed for this study is then summarised at Table 4-4.

Table 5-2 To Demonstrate Appropriateness of CoP Concept (Table 4-2 extended)

	<b>Networks</b>	<b>Ecosystems</b>	<b>Knowledge clusters</b>	<b>CoP</b>
<b>Explanation of collaborative group</b>	<i>Connections between individuals</i>	<i>Network of networks</i>	Often regionally fixed. Revolves around an industry or business specialism	<i>Individuals with a shared commitment to a domain, sense of community and shared practices</i>
<b>Membership types</b>	<i>Business: field/industry contacts plus institutions such as banks</i>  <i>Plus informal: friends and family</i>	Business mainly: field/industry stakeholders	Business mainly: field/industry is key, stakeholders secondary. Often fixed geographical location	<i>Shared commitment so often a “cause”; businesses aspire to develop a culture around which a cop can be fostered</i>
<b>Geographic proximity</b>	Stronger when proximity: networking clubs tend to be face to face	Stronger when proximity: networking clubs tend to be face to face	Usually	<i>No, shared commitment to a domain is paramount</i>
<b>Sense of community</b>	No	No	No	Yes
<b>Key authors cited</b>	Birley (1985) Hildreth & Kimble (2004) Addicott et al. (2006) Lefebvre et al. (2015)	Spigel (2017) Spigel & Kitagawa (2020)	Tallman et al. (2004)	Lave & Wenger (1991) Hildreth & Kimble, (2004) Wenger et al. (2011)
<b>Relevance to the SE group observed (as denoted by italics)</b>	Some	Slight	Negligible	<i>Strong</i>

In my reading of CoP literature, I came across a study which explored an entrepreneurship network which develops into a CoP (Lefebvre et al., 2015). This topic was close to my study and so of particular interest. Lefebvre et al. (2015) explored a number of learning events, from which they collected data using participant observation (Spradley, 1980; DeWalt and DeWalt, 2011). Situated learning, or informal knowledge exchanges, is a key feature of the earlier CoP literature and so data events are seen as learning events. Lefebvre et al. (2015) assert that a network can become a CoP due to engagement and interactions where learning is shared.

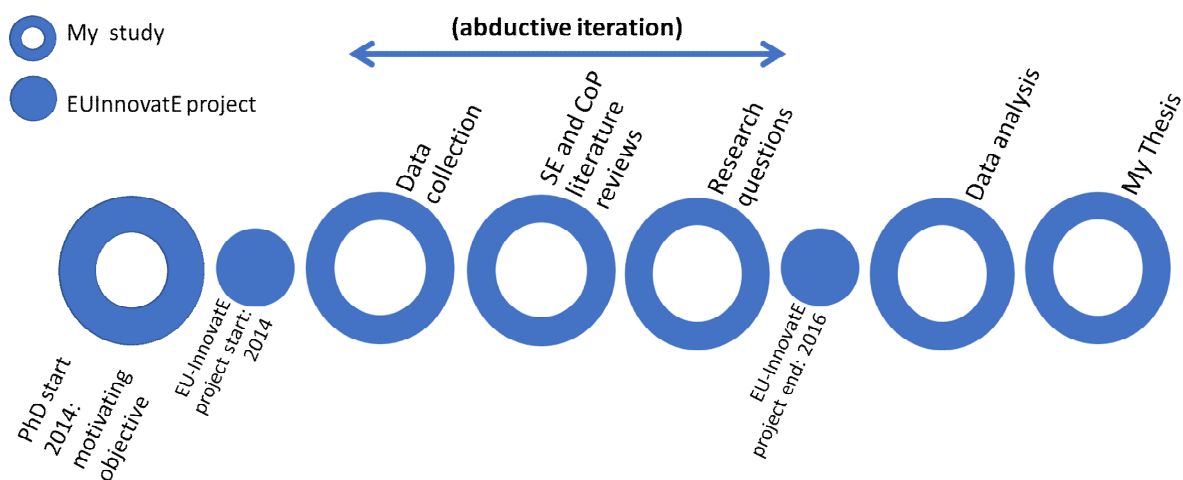
The EU-InnovatE project (Chapter 2) was constituted to bring people together to develop policy recommendations and indeed achieved this purpose. What I observed however, and what was of interest to me for my study, beyond the EU-InnovatE project or WP6 data collection episodes, was how the CoP emerged and members shared knowledge within these formal sessions and beyond them. A key difference between Lefebvre et al.'s (2015) research and this study, is that this thesis examines SE rather than broad entrepreneurship as a CoP. Lefebvre et al.'s (2015) research is a longitudinal cohort study method, conducted at intervals over several years with largely the same sample, to focus on how formal entrepreneurial networks develop into a CoP, with situated learning as the differentiator. My study is also a study conducted over several years but cross-sectional in that the participants at events were not always identical. My study follows an abductive and iterative approach, with a stronger participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) reliant on reflexivity (Umpleby, 2010; Alvesson and Skoldberg, 2018), and differs in this way again from a typical longitudinal case study. The majority of reviewed CoP literature used the case study method via interviews, capturing data at learning events, more than via observation. I collected data, both via participant observation and via other

means such as photos and output documents produced at learning events, plus a series of interviews with policy makers and shapers. On this basis, I call the events in this study, data collection episodes, rather than learning events, which indicates a more purposive approach. The research process is described next.

## **5.5 The Research Process**

The data collection via my participation in WP6 of the EU-InnovatE project was already underway as I began the sustainable and associated entrepreneurship literature review stage summarised above. The data collection therefore was *a posteriori*. I collected this data through access to a government-convened research project, which as a member of the organising consortium, I had both access to rich data and the ability to structure my data collection through these research events, while using informal interactions to supplement the data via participant observation. In this way, I gained access to a multistakeholder CoP of academics, policy makers, thought leaders, citizens, sustainable entrepreneurs and business people, which I observed emerge from the convened research project. My study therefore uses the EUInnovatE project to provide a *revelatory* view into the SE CoP observed, according to Yin (2014). The findings were in no way pre-empted during the collection of the data. I provide here a timeline of the development of my research at Figure 5-1.

**Figure 5-1 Research Process**



<b>Timeline:</b>			
2014	2014-2016	2016-2019	2022

I collected qualitative data during the EU-InnovatE project (Chapter 2) and WP6 policy events in order to gain insight from opinions and discussions supported by observation. The qualitative data was collected via data collection episodes and recording of notes, audio, photographs, typed comments and presentations shared at the different events listed in Table 5-13. The process and timeline are shown in Figure 5-1 then described in more detail in Table 5-3. Some stages of my research ran concurrently as fits with the iterative cycling of abductive reasoning to arrive at the research questions. I followed an inductive reasoning approach for the data analysis in order to interpret the data for insights to respond to the research questions. The data was analysed using thematic analysis according to Boyatzis (1998) and Gioia et al. (2012) in a dedicated software called NVivo (Silver and Lewins, 2014). The full research process is detailed in Table 5-3:

**Table 5-3 Research Development Process**

1	Data collection via participant observation (Spradley, 1980; Howell, 1972; DeWalt and DeWalt, 2011): data collected in all forms possible at data collection episodes, that is, audio recordings, transcripts, photographs and notes – reflexivity in note-taking (Alvesson and Skoldberg, 2018; Umbleby, 2010)	Jan 2014- Dec 2016: see Table 5-13
2	Secondary research: literature review undertaken, and research questions formulated	2014- onwards
3	Data immersion: abductive rereading and review of data with reference to literature review. Synthesis and reflexivity to build connections between primary data and secondary research	2018- onwards
4	Organising data: by event but also awareness of roles, emerging themes becoming apparent	Jan 2019
5	Developing framework: framework drafted of emerging themes, coding frame devised, revisions made	March 2019 onwards
6	Coding data using inductive reasoning approach: a) Initial coding using NVivo software using coding frame developed from concept  b) Revisions of coding frame following meeting with supervisors, some re-coding  c) Interviews which were initially excluded from dataset, partially transcribed	March 2019-Jan 2021
7	Findings noted: insights delivered using NVivo report queries and also development of vignettes. Contributions finalised.	Jan 2021
8	Concept finalised: conceptual diagram finalised based on coding and findings	Feb 2021

In the footsteps of other academics who have investigated communities of practice, most notably Thomas et al. (2013) who explored a heterogeneous running community, a qualitative approach of multiple research activities was adopted. This featured participant observation and data collection via telephone interviews, face-to-face workshops, an online conference, a face-to-face conference, a round table event, and the two AGM workshops of the EU-InnovatE project consortium. I was therefore able to both actively participate in the CoP while collecting data at these events from the



CoP, in line with the active participant observation method (Spradley, 1980; DeWalt and DeWalt, 2011) and following the participant observation process of Howell (1972).

This participant observation method comprises joining the group, being part of it and participating fully, while taking notes as appropriate and reviewing these. Gathering data via methods such as interviews, workshop outputs is also common where an active participant role such as mine is adopted. Spradley (1980) describes five possible types of role of the participant observer. These exist on a continuum from pure observer to full participant. I was both a participant and an observer taking a moderate participation role. I additionally followed Howell's (1972) phases to gain trust and not influence the discussions of which I also was a part, to maintain the integrity of the data collected. Howell's (1972) phases are:

- **Establish rapport:** Get to know other participants. I did so by chatting with participants as they arrived at face to face and online events, and also at breaks for coffee and lunch.
- **In the field:** deWalt and deWalt (2011) describe this as "walking the walk". I demonstrated my commitment to sustainability in conversation and when participating in sessions
- **Record observations and thoughts:** Howell (1972) suggests a reflexivity (Umpleby, 2010; Alvesson and Skoldberg, 2018) journal in order to collect and reflect on ideas. I collected notes throughout.
- **Analysis:** Howell (1972) suggests data collected via participant observation be analysed using thematic or narrative analysis. I used thematic analysis (Boyatzis, 1998).

The type of participant observation I chose was *moderate participation* according to the five participation types offered by Spradley (1980). In this way, I maintained a balance between “insider” and “outsider” roles, which allows for both involvement and detachment for objectivity. I chose moderate participation in order to avoid bias which is a potential issue with more active types of participant observation (DeWalt and DeWalt, 2011). I still wished to be part of the CoP and have the trust of other participants so equally did not want to be an inactive observer. As such, I both took part in organising online and face-to-face events for the community and contributed to discussions. At the same time, I maintained a clear researcher role, recording discussions and transcripts of the online forums. I am aware of the difficulty in avoiding researcher bias when so involved and sought to maintain detachment by making notes and recording the participants in their own words, in audio and electronic transcripts where possible.

I next describe the sampling and recruitment methods employed in this research process more detail.

### **5.5.1 Sampling**

My data was collected from members of a SE CoP and as such, the population was all the different stakeholders who demonstrate commitment to SE. The SE CoP emerged organically from a structured government funded project, EU-InnovatE. For the purposes of this thesis, I provide the non-random sampling methods used for the EU-InnovatE project, through which I viewed the wider SE CoP as a participant observer (Spradley, 1980; DeWalt and DeWalt, 2011).

The sample for this study is therefore multi-faceted. It includes:

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- those individuals of the population who opted to join a consortium of academics leading the wider research into supportive policy for sustainable innovation and entrepreneurship
- those sustainable entrepreneurs and SE stakeholders who chose to respond to public invitations to work together to discuss issues faced by the field
- EU policymakers and policy influencers (thought leaders).

The first two groups can be said to be a self-selecting, *convenience* sample (Marshall, 1996). They responded to public invitations to events. They then chose to openly discuss their experiences and opinions while attending workshops and conferences with a variety of other stakeholders, including entrepreneurs, funders, academics, thought leaders, concerned citizens and more. They also invited colleagues, friends and contacts to join the CoP, and so *snowball* sampling was employed (Marshall, 1996).

Policymakers and influencers were invited to take part in interviews, and *judgement* or *purposive* sampling was used (Marshall, 1996). EU policymakers were also invited to a round table event to share the findings of the WP6 stage of the EU-InnovatE project, again using *judgement* or *purposive* sampling (Marshall, 1996). This sampling is however secondary to my study where my use of the EU project to gain access to the SE CoP is very much a *convenience* sampling decision again.

Many participants across all three groups had long-standing interactions with SE in their personal and professional lives due to personal commitment to sustainability. The community therefore came together around a number of organised data collection episodes, as discussed in more detail in the next sections of this chapter.

The wider EU-InnovatE consortium members felt a sense of *community* and therefore were part of the CoP, having self-selected to participate in *shared practices* through a clear commitment to the *domain* of SE. The notes made and photos taken through participant observation at the annual 2-day general meetings are included in the dataset. Consortium members were also active participants, they attended often simply as members of the CoP, including where they had no responsibility to organise the episode nor collect data.

The population of all sustainability entrepreneurs and associated stakeholders was not then randomly sampled. Where additional participants were also required at EU research events, *snowball* sampling was actively employed by myself and WP6 colleagues. For example, by asking policymakers at the end of interviews if they would be interested in receiving more information about the multi-stakeholder workshops, and if they knew of other policymakers who might be willing to take part in an interview. This actively grew the emerging CoP as members encouraged fellow SE actors to join. Some examples of the public invitations to multi-stakeholder events are seen at A.1 and A.10.

I also targeted sustainable entrepreneurs were also actively targeted for an informal discussion at the events or via personal introductions to collect data for my study, on a non-random *convenience* sample basis (Marshall, 1996). All participants belonged to wider networks which facilitated *snowball* sampling and the growth of the CoP as described above (Marshall, 1996).

Participants varied from data collection episode to data collection episode and are discussed further in the next section.

### **5.5.2 Recruitment to Data Collection Episodes**

The research participants were from multiple countries. The event organisers were participants drawn from consortium members working on WP6 including myself. We reached out to our personal contacts and beyond to environmental associations, small business networks and sustainability groups to invite individuals to participate. Public communications were both printed and distributed, and also placed on social media, owned websites and associate partner websites to spread the word. Invitation examples for the online conference are shown at A.1 and A.2.

While this method led to a very personal network-based approach to recruitment, it reached a wide range of sustainable entrepreneurs and allied stakeholders with very different motives for participating, as is common in communities of practice. By using both online and offline means, and informal and formal communication tools, we attempted to reach as many potentially interested people as possible. It may also have skewed the community membership towards those who enjoy communicating their views. However, we attempted to cater for those less comfortable in a face-to-face forum by offering the online conference, which also opened up participation to individuals geographically unable to attend other events in person.

### **5.5.3 Participants in the Community of Practice**

As discussed in Section 5.5.2, participants came from a wide range of geographic countries, roles, areas of interest and fields of expertise. I will next detail the participants per data collection episode in turn, allocating each participant a unique code which is then used to attribute quotations and narratives to participants in the next chapter of Findings (Chapter 6). Some participants held more than one role, which shown is in this study via their unique number, however the role abbreviation

part of the code may change according to the discussion and the role they allude to within it. The abbreviated codes for each participant role are at Table 5-4.

**Table 5-4 Participant Codes by Role**

<b>Participant role</b>	<b>Abbreviation to create participant code</b>
Sustainable entrepreneur	SE
Thought leader	TL
Academic	A
NGO	NGO
Corporate business leaders: partners/funders	BL
Policymaker/influencer	PM
Citizen/voter	C

I next detail the participants recruited, and recruitment and research methods employed by data collection episode.

## **5.6 The EU-InnovatE Consortium**

For further information about the EU-InnovatE consortium of researchers, and the objectives and work packages of the full research project, please see Chapter 2. This consortium comprised individuals whose interest in SE was more than a research or work interest. They actively worked with their local communities to support sustainability. Some furthered SE whether in community allotments where they collectively grow food and donate surplus produce, or by setting up their own sustainability enterprises in partnership with local sustainability entrepreneurs. As research participants, they therefore had many valuable contributions from the perspective of multiple roles to make to this study. They attended different data collection episodes on a self-selection basis.

**Table 5-5 EU-InnovatE Consortium Participant Codes by WP and Organisation**

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<b>Participant code</b>	<b>WP</b>
A1	WP3
A2	WP3
A3	WP3
A4	WP3
A5	WP3
TL6	WP7
TL7	WP7
TL8	WP7
A9	WP6
A10	WP6
A11	WP6
A12	WP5
A13	WP6
A14	WP6
A15	WP5
A16	WP5
TL17	WP2
TL18	WP2
TL19	WP2
TL20	WP2
A21	WP1
A22	WP1
A23	WP1
A24	WP1
A25	WP1
A26	WP4
A27/SE27	WP4
A28	WP4
A29	WP4
A30	WP4
A31	WP4
A32	WP4

A33	WP4
A34	WP4

### 5.6.1 Interviews

The interviews were conducted predominantly by telephone using a semi-structured interview guide (shown at Appendices 7.5.3A.3), and audio recorded. An example transcript from these interviews is available at Appendices A.4.

The interviews took place with policymakers in government and policy developers in think tanks from across Europe. These were conducted first, to better understand the context from a variety of policy perspectives. A list of the interviewees by role and allocated participant code is shown at Table 5-6. These participant codes are then used in the Findings chapter (Chapter 6) to attribute quotations anonymously.

**Table 5-6 Interviewee Participant Codes with Role, Organisation and Domain**

Participant code	Role
PM35	Project Manager (Economist)
PM36	Policy Officer (Environmental Engineer)
PM37	Manager (Chemist)
PM38	Director (Professor)
PM39	Project Manager (Economist)
PM40	Researcher (also entrepreneur)
PM41	Sustainable Consumption Director
PM42	Researcher
PM43	Project Manager (Engineer)
PM44	Deputy Head
TL45	Policy Adviser (Lawyer)
TL46	Project Lead
TL47	Research Coordinator (Professor)
TL48	Policy Adviser
TL49	Deputy Director for Innovation (Mechanical Engineer)
TL50	Director (lawyer)
PM51	Director



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TL52	Board Member at the British Retail Consortium (Group Company Secretary Corporate Governance at Home Retail Group)
TL53	Associate of the British Retail Consortium (Director of Corporate Affairs)
TL54	Affiliate of British Retail Consortium
PM55	Policy Coordinator (the Bio-economy)
TL56	Director (Industrial Design)
PM57	Project Leader (Sociologist)
TL58	Program Manager (Innovation)
TL59	Project Manager

The interview guide (A.3) was produced for a semi-structured interview, to better understand the issues in developing successful policy for sustainability and to allow flexibility so as not to stunt the conversation or restrict answers. As the interviews were semi-structured, some insights helpful to my research questions were also gleaned. The interview guide was developed by the WP6 research team and piloted within the team and refined based on feedback. The guide ensured consistency across the interviews undertaken as a number of the team, myself included, conducted the interviews. As stated, the interviews were held with preselected individuals chosen for their expert knowledge and who were involved with SE policy creation, implementation or influencing, whether directly with environmental policy or start up policy. Interviewees worked at all policy levels, whether European Commission, international, national or local. The focus of the interviews was to better understand innovation as a key driver of SE and policy's role in supporting such sustainable innovations and the entrepreneurs bringing them to market. However, most interviewees drew on their previous experiences within broader SE think tanks and other organisations, and their continued contacts with these, and so the interviews also produced useful and insightful data for this thesis.

### 5.6.2 Workshops

The previous WP outputs were used to inform the structuring of workshop content and formats. The purpose was to develop policy recommendations during guided sessions, however the participants discussed their experiences in SE more widely and did so also outside the sessions, such as during breaks. It was through these wider interactions and my capturing of these via participant observation and note taking, that the full richness of the dataset of an SE CoP became apparent. The face-to-face workshops held in Copenhagen had under 20 participants each, allowing for in-depth exchanges and relationship building. Participants by code and stakeholder role are shown at Table 5-7.

**Table 5-7 Participant Codes by Roles and Organisations of Multistakeholder Workshop 1 in June 2015**

Participant code	Role
SE60	Sustainable entrepreneur
A22	Academic
SE61	Sustainable entrepreneur
SE62	Sustainable entrepreneur
TL48	Policymaker/thought leader
A23	Academic
A11	Academic
TL18	Change maker
SE63	Sustainable entrepreneur
A10	Academic
TL17	Change maker
A14	Academic
A5	Academic
A9	Academic
A64	Academic
A65	Academic
SE66	Sustainable entrepreneur

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A12	Academic
TL19	Change maker
A67	Academic
TL68	Adviser
TL45	Change maker
SE69	Sustainable Entrepreneur
A13	Academic
SE70	Entrepreneur and change maker
TL71	Entrepreneur and change maker
A72	Academic

**Table 5-8 Participant Codes by Roles/Organisations of Participants in Multistakeholder Workshop 2 on February 2016**

<b>Participant code</b>	<b>Role</b>
SE60	Entrepreneur
A22	Academic
SE69	Entrepreneur
SE62	Entrepreneur
TL48	Change maker/NGO
A23	Academic
A11	Academic
TL18	Change maker
SE63	Entrepreneur
A10	Academic
TL17	Change maker
A14	Academic
A5	Academic
A9	Academic
A64	Academic
A65	Academic
SE66	Entrepreneur
A12	Academic

TL19	Change maker
A67	Academic
TL9	Thought leader
TL45	Change maker
SE69	Entrepreneur
A13	Academic
SE70	Entrepreneur and change maker
TL71	Entrepreneur and change maker
A72	Academic

### 5.6.3 Online Conference

Qualitative data was usually collected for the EU-InnovatE project via traditional methods as described above. However, some was gathered in a contemporary way, via the online conference which drew on the tradition of focus groups by having six online forums. Each forum had a discussion guide, and then the six moderated discussions took place in the contemporary form of typed comments in online forums in real time. The forum topics with relevant discussion guides were developed following analysis of the two workshops held in Copenhagen (June 2015 and February 2016) and the EU-InnovatE AGM workshops (January 2015 and January 2016). The EU-InnovatE Consortium shared findings in the form of progress reports on each WP up to that point. As a result, the forum “rooms” were organised as a Plenary Introduction to the day, followed by morning breakout rooms which participants could choose which to attend and could swap between. These had the topics of Education, Networks and Funding. Afternoon breakout rooms followed, which again were self-selecting and non-binding, with the topics of Scaling up, Measuring impact and Open Policymaking. The day closed with a plenary summary and open discussion session for all, called Wrap Up. Full transcripts were electronically recorded, and an example is available at A.8. This event allowed for participants from all over the world and

indeed participants attended from 25 countries. Videos were also pre-recorded and shared to generate conversation (please see example still at A.9). While the event was organised as part of the EU project, the discussions were wide ranging and largely free flowing amongst the wider CoP members, who referred to the value of their interactions and the situated learning taking place between them. Please see Table 5-9 for further details of participants.

**Table 5-9 Participant Codes with Organisation and Job Role for Participants in Multistakeholder Online Conference May 2016**

Participant code	Job title
A3	Researcher
A5	Academic
TL8	Director
C73	Strategist
C74	Co-Founder
SE75	Consultant
A76	Lecturer
A77	Researcher
BL78	Director
C79	Manager
BL80	Coordinator
SE81	Founder
BL82	Group Head
NGO83	Adviser
SE84	Chair
C85	Intern
C86	Partner
BL87	Partner
SE88	Senior Researcher
SE72	Professor
BL89	Manager
TL90	Researcher
BL91	Director
BL92	Director
BL93	Director
C94	Director
SE95	Director
C9	Fellow
A67	Professor
C96	Co-founder
C97	Student

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C10	Associate Professor
A98	Associate Professor
C14	Professor
A99	Lecturer
A100	Reader
C11	
BL13	
A101	Senior Lecturer
A102	Student
C103	Student
PM104	Student
C105	
A106	Lecturer
C107	Lecturer
C108	Professor
C109	Student
BL110	Student
SE111	Student
A112	Engineer
C113	Researcher
A12	Professor
A114	Senior Lecturer
A115	Researcher
SE116	Visiting Academic
C117	Student
C118	Student
C119	Research Fellow
BL120	Marketing Communications Assistant
A121	Researcher
A122	Student
A123	Research Fellow
SE124	Student
C125	Manager
BL126	Project Manager
C127	Chief Innovation Officer
BL128	
SE129	Designer
C130	Attorney
C131	Visiting Fellow
C132	Strategist
BL133	Strategist
C134	Director
SE135	Chair
TL136	Assistant
BL137	VP
C16	Researcher

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A138	
SE139	
C140	Chair
C141	Director
C18	Project Manager
C17	Head
C19	Principal Advisor
A142	Deputy Head
SE143	Assoc. Professor
C144	Sociologist
SE145	Strategic marketing
C146	
BL147	
BL148	
C149	Director
BL150	
BL151	Director
C152	Director
BL153	Director
BL154	Teacher
C155	Student
BL156	Manager
SE157	Talent Leader
TL158	Head
BL159	Board member
C160	Chief Impact Officer
A161	
NGO162	
C163	Project coordinator
BL164	Group Director
BL165	Senior Manager
A21	Professor
TL166	Theme Lead
BL167	Director
BL168	Legal Trainee
C169	CEO
C170	Manager
SE171	President
C172	Adviser
C173	Manager
BL174	Head
TL175	Innovation Project Officer
BL176	Manager
TL177	CEO
TL178	Researcher
C179	Consultant

C180	Manager
BL181	Partner
A182	Director
BL183	Consultant
A184	Researcher
C185	Director
A27	Research Assistant
C186	Student
C33	Research Assistant
SE187	Spokesperson
NGO188	Researcher
A189	Student
C190	Director
C28	Research Assistant
C34	Research Assistant
C191	
A192	Professor
A193	Teacher
C194	Research Assistant
C195	Student
C196	Associate Director
TL197	Head
TL198	Manager
C199	Student
NGO200	Manager
A201	

#### 5.6.4 Round Table Event

The EU policymaker round table event was conducted with invited EU policymakers from relevant European Commission departments towards the project. The purpose was to present ten policy suggestions derived from the open events and discuss the practicalities and potential prioritisation of these. Again, I collected data via participant observation and note taking at this event. The participants of this half-day round table event are shown by role with their allocated participant code in Table 5-10.

**Table 5-10 Round Table Participant Codes by Role and Organisation**

Participant code	Role
PM202	Policy Officer
PM203	Policy Officer



PM204	Action Leader
PM205	Policy Officer
PM206	Policy Officer
PM207	Senior Expert
PM208	Policy Officer
PM209	Project Coordinator
TL8	Director
TL6	Coordinator
A67	WP6
A9	WP6
A14	WP6
A10	WP6
A13	WP6
A11	WP6

### 5.6.5 Face to Face Conference

The data collection events concluded with a large one-day, face-to-face conference organised by consortium colleagues working on WP7. 104 participants registered. I attended as a participant and made notes of my observations of keynote speakers and conversations with other participants. As a result, data collected was largely via participant observation, and my interactions with sustainable entrepreneurs and other actors in SE made clear that they too were part of the SE CoP, sharing many of the practices noted in previous data collection episodes. Some participants from previous data collection episodes also attended this event. I allocated participant codes according to previous event participation and from the activity of their named organisation. The resulting codes and organisation names are shown in Table 5-11.

**Table 5-11 Participant Codes with Organisations Represented at Face-to-Face Conference in Brussels November 2016**

Participant Code	Organisation
------------------	--------------

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TL8	ABIS
A13	Cranfield University
TL7	ABIS
TL71	Social Action (Denmark)
C210	n/a
A211	KU Leuven University
SE212	Regenerative Design
TL213	Future Flux
C214	n/a
SE215	WeSmart
A216	Nyenrode Business School
NGO217	International Association TIP
NGO218	EYIF
A219	EU Business School
SE220	Right. based on science
A221	Politecnico di Milan
C176	Raycap
SE222	Right. based on science
TL126	Collaborating Centre on Sustainable Consumption and Production (SCP Centre)
BL92	Change the Law
SE223	99emotions
BL224	Oxford Innovation
SE225	Xcellence in Solutions
A226	Cranfield University
A186	TUM University
A227	TUM University
BL228	Buro Happold
A229	TUM University
A230	TUM University
A231	TUM University
SE232	The Rónán Haughey Development Partnership
A233	TUM University
A234	TUM University

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BL235	Haven Apparel Inc
A236	TUM University
A237	TUM University
A90	Central European University
BL238	Atos SE
C239	n/a
TL240	Coethica
BL241	Green Solutions Uganda
TL242	CSR Company International
A243	ALTIS University
A4	Aalto University
NGO244	Global Action Plan
TL245	Oak Grove
TL73	Active Earth Investment Solutions
PM246	Miltton Brussels
SE247	Digital African Woman
C248	Self-employed
C249	Self-employed
C250	Self-employed
A3	Aalto University
PM251	Helsinki EU Office
BL252	Overview Technologies
BL253	Planete Digitale
A254	National University of Architecture and Construction of Armenia
A1	Aalto University
A255	KU Leuven
TL256	Digital Leadership Institute
BL257	The Good Summit
A258	Politecnico di Milano
A259	University of Tartu
A260	Rotterdam University of Applied Sciences
A261	Nottingham Business School
NGO262	House of Skills

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NGO263	Schoepflin Foundation
BL264	Biogenini
A30	TUM university
A2	Aalto University
SE265	Merged Vertices
BL266	OTS SA
A267	University College London
BL268	GRESB
BL269	GRESB
TL270	Hill Student Council
TL271	Women Economic and Social Think Tank (WESTT)
TL272	Groupe One
BL146	Globescan
PM273	World Bank
TL19	Forum for the Future
A67	Copenhagen Business School
A9	Copenhagen Business School
TL6	ABIS
A29	TUM University
A5	Aarhus University
A11	Cranfield University
A21	Kozminski University
A15	ESADE University
A273	ESADE University
A14	Cranfield University
A88	Catholic University Eichstätt Ingolstadt
A22	Catholic University Eichstätt Ingolstadt
A23	Catholic University Eichstätt Ingolstadt
A34	TUM University
A10	Cranfield University
TL18	Forum for the Future
TL20	Forum for the Future
A12	Cranfield University

A24	Politecnico di Torino
A25	TU Eindhoven University
TL274	ABIS
SE275	Polarstern
TL276	B Lab/B Corp Europe
PM277	EESC and Madi Group

I had informal discussions, during all the workshops and conference breaks, with individual sustainable entrepreneurs and other stakeholders to better understand their motivation and the practices they undertook. These discussions were also included as notes I took during conversation or immediately subsequently using the techniques of a participant observer (Spradley, 1980; de Walt and de Walt, 2011). An example of these notes appears at A.12.

### **5.7 Data Gathered at Data Collection Episodes**

As a result, the data collected from the SE CoP members is summarised in Table 5-12.

**Table 5-12 Data Summary**

	<b>Interviews</b>	<b>Workshops and conferences</b>	<b>Round Table, AGMs, EUInnovatE team discussions</b>
<b>Data source type</b>	<b>25 interviews</b>	<b>Two workshops, one online conference, one face to face conference</b>	<b>One policy roundtable, two consortium AGMs, ongoing discussions</b>
<b>Data collected</b>	25 audio interviews and transcripts	57 photos of tangible artefacts of outputs produced 214 pages of transcripts of online conference comments	16 photos of outputs 112 pages of notes 9 update and project reports
<b>Description of data</b>	Insights from policymakers and shapers. Phone and face to face interviews with civil servants, programme managers and senior executives from government bodies, think tanks and professional associations.	Participated in two full day workshops, one full day online conference and one full day face to face conference. Participant observation collected as notes for workshop and face to face conference, plus transcripts of typed online conference discussions across six topic forums, and two plenary forums.	Annual two-day meetings were held over the three years of the project by the transnational project team. All project members provided updates which were also rich in data and useful discussions noted. The project team comprised of academic sub-teams from across Europe's academic institutions and think tanks
<b>Analysis insights</b>	Insight into key issues for sustainable entrepreneurship from policy and practitioner perspectives.	Insight into issues for sustainable entrepreneurship and observed and noted the practices of the community.	Insight into broader phenomenon of sustainability entrepreneurship beyond those who attended the events and who were observed first-hand. Broad corroboration of first-hand insights into drivers, practices and outcomes.

The data was so vast that criteria were set to determine what should be included in the analysis. I have defined it as relevant data for inclusion in the dataset where CoP members, defined as stakeholders with an interest in SE, discuss sustainability entrepreneurship issues, practices, sources of information and their experiences. Data was therefore included in the dataset if it pertained to discussions by community members either at the formal data collection episodes mentioned or informally such as academics, who held multiple roles, discussing their experiences as SE community members, often as sustainable entrepreneurs or collaborators themselves. Keynote speakers at events were members of the community and so their presentations about some aspect of the community, whether crowdfunding opportunities for sustainable entrepreneurs, open policy making processes in collaboration with local communities wishing to develop sustainable solutions to local issues, or research into sustainable living projects facilitated by sustainable entrepreneurs, were all included. Interviews with 25 policymakers and influencers were also included for their broad knowledge and insights into the issues of SE and potential solutions.

Where data was held both visually and written or audio and written, I used judgement to decide which to analyse. If, for example, I had the participant's own words as a written comment and my notes did not add to additional insight, I analysed the participant's own words. This was so that the same data was not being given undue weighting by being analysed repeatedly in multiple forms (Charmaz, 2013; Glaser and Strauss, 1967, 2000). On the basis, if there was repetition, interview and workshop transcripts and audio were given precedence over final summary photographs of workshop outputs. These photographs add colour and a flavour of the events however (examples at 7.5.3A.7), and at times added additional content to the dataset and helped to develop my thinking with regard to the interactions within the CoP. For

example, one of the outputs of the first workshop was a wall covered in sticky notes as participants collaboratively created “The Wall of Great Importance” dealing with the challenges and enablers with regard to sustainable innovations. My digital photograph of this wall at Appendix 8 supplemented my notes and allowed me to zoom in on different areas to remind myself of different discussions throughout the day, alongside my notes.

What follows next is a summary of these data collection episodes and the data gathered per episode.

As stated in Chapter 2, each work package (WP) of the project had a different focus to explore, whether, for example, how to enable the scaling of sustainable innovation enterprises or proliferating and mainstreaming sustainable innovations within larger corporations and policy recommendations to support this. The focus of each WP is described in Chapter 2, as is the data gathered across all data collection episodes in Table 2-1 EU-InnovatE Project: Data Collection Episodes. WP6 which I was heavily involved in as part of the Cranfield University team, was exploring which policies enabled or hindered SE, in order to make better targeted policy recommendations to enable SE, at the start-up of enterprises, through to the scaling up or replication of these sustainable enterprise ideas.

Indeed, the individuals I met through all these data collection episodes, including those sustainable entrepreneurs who were the subjects of the earlier WP case studies, all shared a commitment to enable further SE. The recognition of this shared commitment to the *domain* of SE and a number of recurring *practices* across data collection episodes led to an abductive consideration as to whether these individuals constituted a CoP.



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I collected the following data at events and interviews as at Table 5-13, including my notes taken using participant observation technique of Spradley (1980), DeWalt and DeWalt (2011).

**Table 5-13 Data Gathered via Collection Episodes**

<b>Data Collection Episode</b>	<b>Participants</b>	<b>Data gathered</b>
25 Interviews (see interview guide at 7.5.3A.3.)	25 policymakers and influencers from across Europe	25 audio recorded interviews (example transcript at A.4)
Two two-day workshops held at Copenhagen Business School (CBS) (see example agenda at A.5)	49 self-selected sustainable entrepreneurs and allied stakeholders from across Europe	Photographs of outputs (examples at A.7.) Notes of discussions (112 pages in total)
One day online conference with six forums and two plenary sessions (see online and physical examples of invitation at A.1 and A.2)	149 Self-selected sustainable entrepreneurs and allied stakeholders from 25 countries worldwide	1696 typed comments (example at A.8.) Videos and supporting materials (example video still at A.9)
Face to face one day conference held in Brussels (see A.10 and A.11 for invitation and agenda)	116 self-selected sustainable entrepreneurs and allied stakeholders from across Europe	Notes of presentations and discussion (112 pages in total) (example of notes at A.12)
Half day policymaker round table event in Brussels	Nine EU Policymakers and eight EU-InnovatE consortium researchers	10 policy recommendations for sustainable entrepreneurship (see A.13 for example recommendation slide from presentation deck)
Two Consortium two day AGMs, with workshops held at the Technical University of Munich (TUM)	Researchers from EU-InnovatE consortium of 13 institutions including academics and thought leaders	Discussions of findings from wider project to include case studies and individual discussions (see 7.5.3A.7 for example of workshop output photograph)

Some data included existing information such as summary reports and presentations, shared at such events by community members, but became new data via the retelling of it within anecdotes or via the context of its retelling such as signposting. Much of the data was wholly new primary data and comprised of the discussions by members.

All types of data were recorded whether via audio, photographs, note-taking by hand or typed comments at these events.

As previously stated, the data collection at organised research events was vastly supplemented by participant observation (Spradley, 1980; DeWalt and DeWalt, 2011). I used the writings of Howell (1972) and DeWalt and DeWalt (2011) to follow best practice in data collection by participant observation, and then analysed the data via *thematic analysis* (Boyatzis, 1998).

The initial conferences and workshops comprised of plenary and group activities, which were recorded, and notes taken. At these the six themes of *education, networks, funding, scaling up, impact* and *open policymaking* emerged as areas of key issues for community members. These areas were key for participants as they perceived institutional barriers existed which needed to be resolved to support SE; these were then further explored in the online conference with electronic transcripts recorded.

The workshops outputs were recorded and the participant inputs for the online conference were typed so full transcripts including weblinks and uploads were automatically recorded. The known issues with the research techniques of interviews and workshops such as interviewer/moderator bias or omissions (Silverman, 2020) were limited by interview guides and activity schedules being produced in advance and reviewed by all the event organisers plus independent proofreaders/checkers (Gioia et al, 2012). For the online conference, moderation guides were produced, reviewed and revised in advance (Gioia et al., 2012) and materials such as articles were posted in advance for participants to review at leisure should they wish to (Heisley and Levy, 1991). Participants also had the opportunity to upload documents and add weblinks. In addition, throughout the three-year period, I was able to collect

further data by speaking informally with participants both individually and in groups, and by attending further events associated with various participants, accessing keynote speaker presentations and so on. This all added to my participation within the community and built my understanding of the dataset.

## 5.8 Data Analysis

All these data as photos and transcript texts were then analysed thematically in NVivo (Silver and Lewins, 2014) following Gioia et al. (2012). I chose Gioia et al. (2012) as for a thematic approach the 1<sup>st</sup> and 2<sup>nd</sup> level ordering provided greater depth and clarity in the data analysis, allowing me to use NVivo to collate the data and see the differences between themes and the separate strands within them. I firstly read through all the data and recognised some emergent conceptual themes around which to cluster the elements of the data based on the frequency of these conceptual themes. I then found how these themes transcended individual data collection events for richer qualitative insights, following a *thematic analysis* approach (Boyatzis, 1998). By immersing myself initially in the multi-stakeholder data, I was able to build the first iteration of the conceptual diagram as seen at Figure 6-1.

Following the thematic analysis process (Boyatzis, 1998) described in detail in this chapter and in response to my three research questions, I clustered the key findings as *drivers*, *practices* and *outcomes* (see Figure 5-2). The 3<sup>rd</sup> order headings for these drivers, practices and outcomes and the 2<sup>nd</sup> and 1<sup>st</sup> order categories were revised through discussions with my supervisors and PhD adviser. Through this process, I arrived at the final 3<sup>rd</sup>, 2<sup>nd</sup> and 1<sup>st</sup> order findings following Gioia et al. (2012). These are seen with illustrative quotations from the data to exemplify the 1<sup>st</sup> order findings in summary tables in Chapter 6.

At this stage I considered whether the remaining parts of the full dataset should also be included, that is, those only including policymakers and shapers, and following discussion with my supervisors, decided this additional data in the form of the interviews should be transcribed, added and coded for further rich insights. This decision was based on the vast networks many mentioned within their interviews and on review it was clear that they too constituted part of this CoP, as a wider *constellation of communities*. The communities of practice literature, most recently Wenger and Wenger-Trayner (2011) sees communities as unbounded, part of overlapping communities and indeed many community members espoused this.

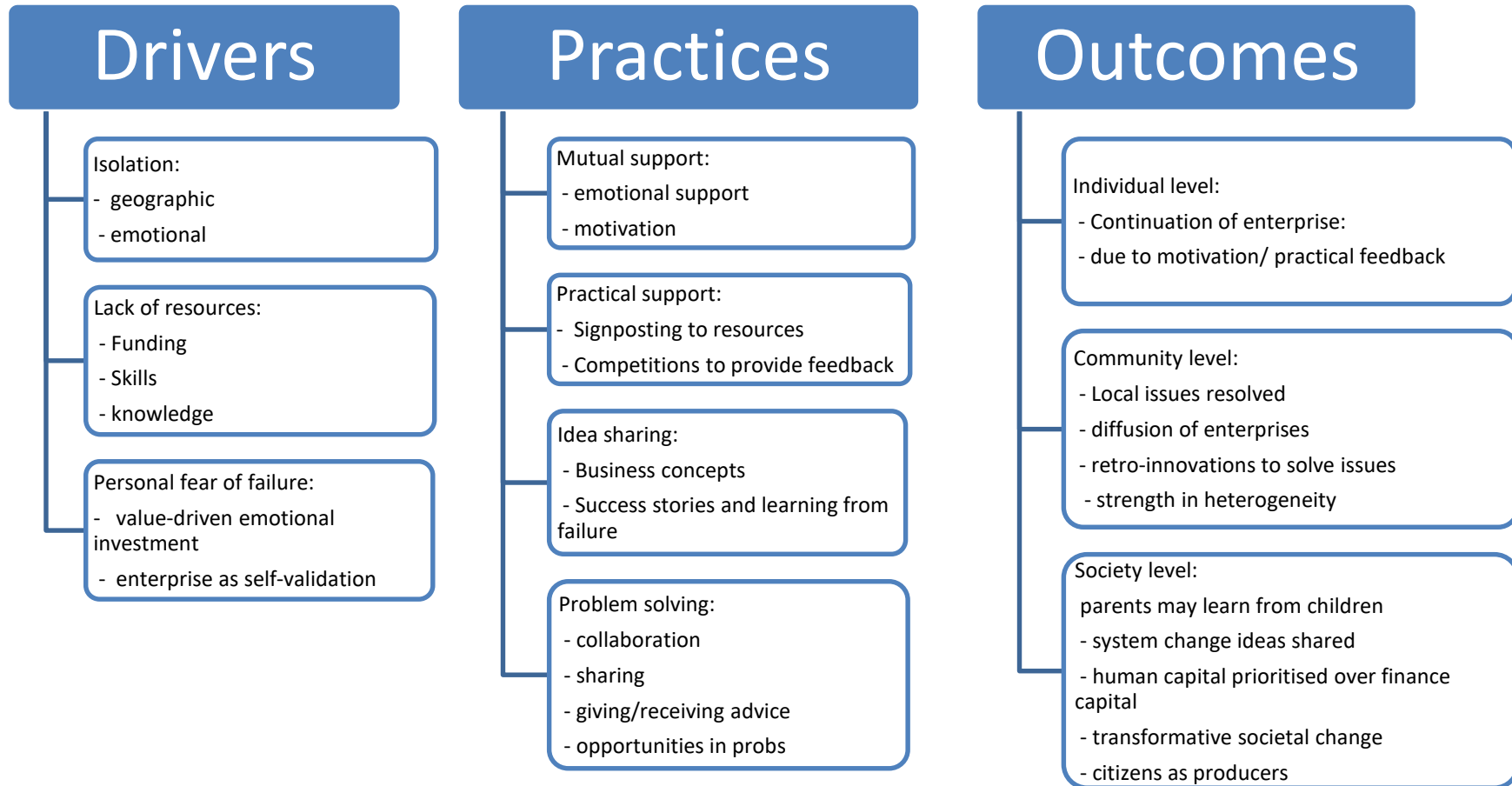
It became clear that the data described in the words of the community members, why they had joined the community, these reasons were collectively titled *drivers*. Community members also discussed what they do with others to gain knowledge and develop their enterprise, so these were collectively titled *practices*. *Practices* were noted as activities and verbs in the data, all being noted either for their repetition by different members of the community or in my notes. *Practices* was by far the largest part of the data; the community discussed what they did that was helpful to them within the community and provided stories of successful *outcomes*, and also where outcomes were not successful, what they learnt from the experiences. These were labels of *drivers*, *practices* and *outcomes* were therefore used as umbrella themes.

By inputting the data into NVivo software and then creating a node for each of these drivers and activities, which I considered as themes, I arrived at a first stage analysis. These themes then seemed to be large and encompassing a number of further themes, so I created a further level of sub-themes to clarify and show greater granularity and depth in the data. I also reviewed the node labels and decided on labels as appropriate, also collapsing nodes where granularity at stage one analysis

did not add to our understanding. For example, originally there were separate Driver nodes for Geographical Isolation and for Loneliness/sense of isolation. These were collapsed into a single node called Isolation with sub-categories called Physical and Emotional, and over time these were renamed Geographic and Emotional (Figure 5-2) before eventually becoming Geographical and Psychological in the final analysis and representative diagram seen in Figure 6-1.

In the same way, there were discussions noted and allocated to nodes called Lack of Funding and Lack of Skills. These were then collectively renamed Perceived Lack of Resources, before eventually being named Lack of Resources with subcategories of Funding, Skills and Knowledge. This first stage analysis is shown in Figure 5-2 as the culmination of the first stage analysis. Further reordering took place subsequently to arrive at Figure 6-1.

Figure 5-2 First Stage Analysis



Due to changes in my supervision, I undertook the first stage analysis in discussion with my now Associate PhD Supervisor and PhD Adviser as inter-coder validation, they were both WP6 colleagues from the consortium and therefore familiar with the data and domain experts. My current PhD Supervisor also provided inter-coder validation in a different way, as he was unfamiliar with the project and therefore could provide an *outsider* view, ensuring sense-making of the presentation of the data. Via lengthy discussions, I reached agreement with my supervision panel on the renaming, replacing and consolidating of categories to ensure that the concepts were valid and coherent, and to ensure that a logical approach was taken. In this way an iterative process was undertaken, clustering data into categories as conceptual themes and breaking these down into more granular subcategories as activities. By consequently then separating motives for joining the community from practices conducted in the community and stated benefits and outcomes of the community's activities, and in consultation with my supervisors, I arrived at the top-level groupings of categories under Drivers, Practices and Outcomes.

Through this process I arrived overall at the contextual drivers, practices and outcomes of the SE CoP; this clustering of themes in the data led to the specific, named categories and subcategories which could be summarised as a number of contextual drivers, practices and outcomes for the CoP. Representative data were then used to exemplify these findings in Table 6-2, Table 6-3 and Table 6-4.

A 1<sup>st</sup>-order (participant-led) concepts and 2<sup>nd</sup>-order (researcher-led) thematic analysis (Boyatzis, 1998) was thereby used to emphasize both participant and theoretical insights via a systematic thematic approach, rather than narrative analysis or any other qualitative analysis method (Gioia et al., 2012). The benefit of *thematic analysis*

(Boyatzis, 1998) is to create umbrella categories of themes and then see the sub-categories which belong within these to gain insight. This was used, rather than a more quantitative-leaning *content analysis* (Krippendorff, 2004), in which I would have counted the recurrences of a theme in the data. *Discourse analysis* (van Dijk, 2001), a highly qualitative approach to the data was also not used to infer the psychology behind the spoken word or text. As I adopted a constructivist paradigm for my research, thematic analysis (Boyatzis, 1998) was most appropriate to identify the categories of themes which created the social construct of a CoP.

In summary, the data from each activity was looked at and the data clustered according to the contextual drivers for participants to join the community, the practices conducted by the community and potential outcomes at multiple levels from the practices identified, in line with the research questions posed by this thesis. The themes were not restrictive however, as stated, they were regrouped and revised both by myself as first coder, and then in discussion with domain experts to sense-check my initial coding.

The data were first considered as drivers, practices and outcomes in an *a priori* manner and then aggregate dimensions taken from the data itself to identify key themes under the driver, practices and outcomes headings. This data was analysed further to arrive at a smaller yet significant set of aggregate dimensions; for example, *evolving business models* as a practice had clustered within it under subheadings *to replicate successful enterprises* and *to learn from failure*. These dimensions were arrived at by reviewing the data both manually and then using NVivo software in an iterative manner to arrive at a clear categorisation, according to the process exemplified by Gioia et al. (2012). This continual iterative review approach to inductive research is well complemented by participant observation which also employs an



iterative reviewing approach when best practice is employed, according to DeWalt and DeWalt (2011). The researcher is therefore both very close to the data and yet creating some distance in terms of objectivity for analysis purposes, as I was. This is the role of the moderate participant observer (Spradley, 1980) in the data analysis of primary research.

The purpose was to review all the data to see how it related to a CoP at the meso-level. It became apparent that the CoP did indeed conduct specific practices of note, and additionally a number of contextual drivers at the micro-level fostered the formation of the community and had impact on outcomes at various levels; at the micro-level on the macro-level. From this a fuller understanding of the participants' perceived value derived from membership of a CoP (and therefore also implicitly at times their motivation to join), their shared practices leading to examples of situated learning as a result of interactions with the CoP and the outcomes of the community which impact at multiple levels, for the individual, the enterprise, the community itself and more broadly society.

## **5.9 Chapter Summary**

This chapter set out and justified the philosophical approach of constructivism used in this thesis, with reference to the ontological position and epistemological study. It explained how the research questions were arrived at abductively whilst collecting data as part of the WP6 team of the EU-InnovatE project. It described the method of participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) used to collect data for my study.

I described the sampling and recruitment methods used for the different data collection episodes and provided participant coding. Detail on each data collection episode

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followed, with a summary of the data gathered. The chapter then explained the data analysis process employed, using an inductive approach.

The findings that result from this full data analysis are now discussed in the next chapter, which respond to the research questions posed.

## 6 FINDINGS

### 6.1 Introduction

In this chapter I will discuss the key findings from the data collected and analysed as described in the Methodology chapter (Chapter 5), from across the data collection episodes including my notes taken during observation. I begin by restating Table 3-1 of specific challenges faced by SEs according to the extant literature. In this new iteration of the table I include findings from my study which demonstrate how membership of a CoP may address these challenges. I next introducing a conceptual diagram to show the key findings in section 6.3 with a brief explanation (section 6.3.1). Consequently, this chapter delivers a detailed description of the primary source data findings in section 6.4, with dedicated sub-sections for each of *drivers* (section 6.4.1), *practices* (section 6.4.2) and *outcomes* (section 6.4.3). This chapter concludes with a summary of the findings at 6.5.

### 6.2 Challenges of SE addressed through Membership of a CoP

Challenges of SE were discussed in Chapter 3 at section 3.7 and summarised in Table 3-1. The findings expand on these challenges, adding more that were experienced and discussed by CoP members. These are added to Table 6-1 and supporting evidence provided within the table. Italics show where new challenges and evidence from the findings have been added.

**Table 6-1 Challenges of SE (based on Hoogendoorn et al., (2019), expanded to include CoP findings**

(Italics shows new data from SE CoP, both additional challenges and evidence.)

<b>Challenges faced by SE</b>	<b>Specific challenge</b>	<b>Example of evidence from findings</b>
Resources access ( <i>Access to resources</i> )	Access to finance	<i>“Funding applications and other forms are so complicated, I couldn’t have done them on my own.” (SE66)</i>
	Access to knowledge ( <i>Access to skills</i> )	<i>“you needed a professional to fill in the forms, the language was inaccessible, etc.” (AGM January 2015)</i>  <i>“Lack of necessary skills leads to a feeling of impotence.” (AGM, January 2015)</i>
<i>Isolation</i>	Local access is limited ( <i>Geographical isolation</i> )	<i>No localised support discussed by various stakeholders at different events, leading to suggestions of an online forum to support those isolated</i>
	<i>Psychological isolation</i>	<i>“Entrepreneurship is a lonely business” (C19)</i>
Fear of failure (Personal risk)	Confidence in own skills	<i>Joining a local enterprise hub, without which a CoP member would have given up. SE stated the CoP provided a similar sense of solidarity (SE66)</i>  <i>“People driving change can get burned out and can feel alone and over-whelmed.” (TL17)</i>
	Self-perception and identity	
Policy issues (Institutional environmental constraints)	Disjointed policy	<i>For example, council-subsidised parking would negatively impact the usage of more sustainable commuting means, that is public transport or walking (A27)</i>
	Policy constraints	<i>Limited faith of some in policymakers: “We’re better off doing things on our own” (SE95)</i>
	Niche market access is limited	<i>For example, UK government has to date failed to reduce its support for fossil fuels from overseas. Wind and solar energy are still minority sources.</i>

<i>Gaps in government provision</i>	<i>Places increased burden on civil society and SE. Often provides opportunity for SE however so not just a challenge.</i>	<i>e.g. Limited public transport on small Spanish island provides niche market for an alternative lift-sharing platform (SE279)</i>
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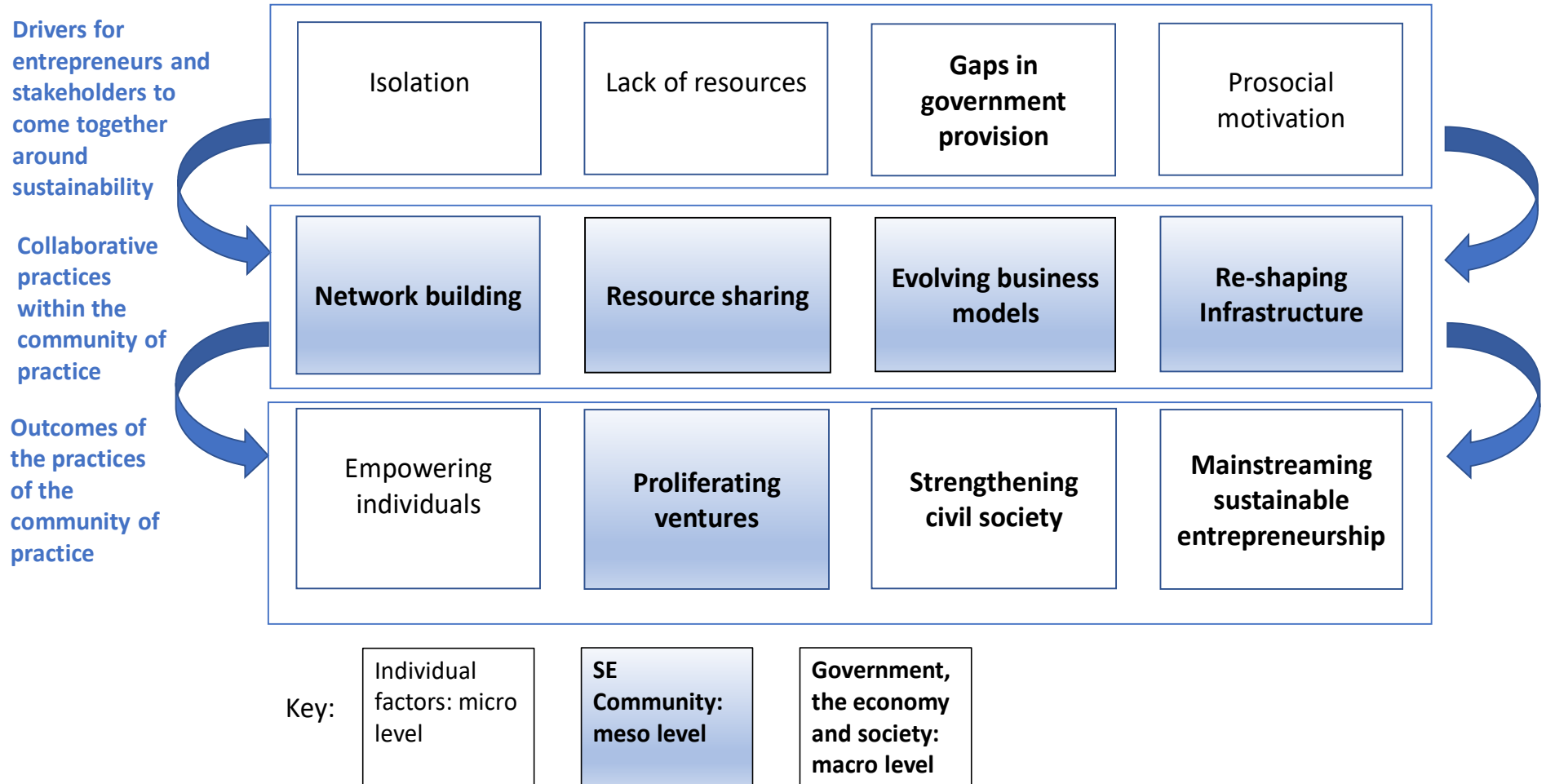
### 6.3 The Key Findings as a Conceptual Diagram

I demonstrate that:

- members choose to join the community in response to one or more of *four* external drivers for community membership, predominantly from the individual micro-level but include one macro factor,
- *four* shared practices are conducted within the community at the meso-level
- and there are *four* outcomes for the SE domain. These outcomes impact the micro, macro and meso-levels.

The CoP itself exists at the meso-level while the outcomes impact at the micro, macro and meso-levels. The analysis was brought together into a single figure for greater clarity. We can view this as the conceptual framework at Figure 6-1, which is then discussed in more detail.

Figure 6-1 Sustainable Entrepreneurship (SE) as a Community of Practice (CoP)



### 6.3.1 The Conceptual Diagram Briefly Explained

The drivers are the key reasons for these sustainable entrepreneurs and other stakeholders to come together. Community was clearly very important to many members, whether to directly to assist in their enterprise due to *lack of resources*, or just to avoid a wider sense of *isolation* and malaise. Some were explicit that they were happy to share resources, ideas and help others build their businesses which indicates a *prosocial motivation*, giving back to a sustainability community. Many demonstrated commitment to sustainability by chatting freely about their involvement with local community gardens or other community actions unconnected to their paid work or main role in life.

This commitment was commonly linked to how participants demonstrated *prosocial motivation* by giving their time without incentive to participate in the research and in how they willingly gave ideas, support and information to one another. This motivation is also seen by the genuine enthusiasm with which they approached discussions on the topic of sustainability. Many also seemed to see the CoP as part of the concept of “big society”. This is where voluntary groups, mutual aid groups and charities have flourished in some nations. They have done so in response to some *governments reducing direct provision* and societal support for some services, due to financial constraints and the unpopularity of increasing taxes with voters. CoP participants might exhibit one or more, and possibly all four drivers.

The four practices seen within the community are all interconnected, as the practices are informal, these were not practices that were solely directed or encouraged by the research organisers. Again some are inferred, at times, through analysis of the actions and words of participants. *Networks were built* by exchanges which were both social



and business focused. Echoing Miller et al. (2012), sustainability is a core value and so there was very little difference between chatting to someone about their sustainability enterprise, its business model and any issues they were facing, and mentioning their family life, pastimes and other leisure interests. In the same way, *resources were shared*, whether directly or by signposting to useful organisations in the field. *Business models were evolved* through discussions, advice and different viewpoints to resolve issues, which helped individuals towards decisions with options they may not have previously considered. The *infrastructure was re-shaped* for SE as the community created a supportive environment for SE. It also evolved understanding of the phenomenon, barriers and possible enablers, to lead to policy recommendations to support the infrastructure further.

The practices then collectively contribute to outcomes:

- for the *participants themselves*, by feeling part of a community
- for their *enterprises*, which were supported by resources and a will to continue
- for their *local communities*, which were enriched by more sustainable enterprises and groups activities
- and ultimately it is hoped by changes in *government policy, the economy and society*.

This indicates how the CoP model when applied to SE can contribute to the economic and societal changes necessitated by social ills, climate change and decreasing resources.

## 6.4 The Sustainable Entrepreneurship Community of Practice Findings

Having identified the SE community as a CoP, the key findings were clustered as *contextual drivers*, *practices* and *outcomes* as 3<sup>rd</sup> order findings with 2<sup>nd</sup> and 1<sup>st</sup> order findings adding richer insight and granularity. These will be discussed next in turn.

### 6.4.1 Contextual Drivers for the Community of Practice

As stated, four categories of contextual driver were found to shape the CoP studied. These categories were: *isolation*, *lack of resources*, *gaps in government provision* and a *prosocial motivation*. These contextual drivers indicate why individuals both from sustainable enterprises and from other organisations become members of the community.

#### 6.4.1.1 Isolation

My findings describe how individuals are drawn to a CoP through feelings of isolation, whether psychological or geographical. A participant (SE66) at the first workshop in Copenhagen, who was a sustainable entrepreneur, in a discussion about barriers to sustainable innovation and entrepreneurship, said her business would have failed and she would have “given up”, if she had not found support at a local enterprise hub. She felt that the ability to leave her home and work from a dedicated business space, with other enterprise owners around her, gave her motivation to continue when she felt despondent. They all provided a sense of solidarity in facing the common issues of running a small business, and she felt the same as part of the CoP. She appreciated the sharing of practical knowledge and advice, such as how to access forms for funding, and assistance in completing these. But most of all, it was the sense of psychological isolation that she found hardest to overcome when working alone initially and which brought her to the hub. This sense of solidarity, found by being part of a

CoP, with collective input to break down the sustainable entrepreneur's perceived barriers to enterprise growth, was echoed by other discussions, in different groups, and was very much a theme noted in a workshop session (CBS, June 2015). The idea of the *lone hero* entrepreneur was not echoed in this CoP, where people prospered through mutual interactions and discussions (Davidsson and Honig, 2003).

A participant in the online conference (C73) also mentioned that while face-to-face encounters might be preferable, due to geographic dispersal of SE community members, online interactions were often more practical. Hubs, networks and platforms to facilitate connecting individuals as *social capital* (Davidsson and Honig, 2003), both face-to-face and online, were therefore seen as mechanisms that built and supported the CoP. The CoP was founded on much more interpersonal human engagement and relationship building.

Within such discussions, many sustainable entrepreneurs discussed a sense of isolation as an issue, because they felt isolated as what they were doing was so innovative and they were physically distant from other stakeholders who might be helpful to the very specific needs of their enterprise. Another member of the community also indicated they felt isolation, even if within an institution, as colleagues may not share their prosocial motivation for sustainability (BL82). This was not a key finding as the discussions focused on SE rather than sustainable intrapreneurship (Bulloch and Bonnici, 2021), but it is interesting and could be explored in subsequent research. Comments largely focused instead on the importance of growing their network of contacts and being part of a community had been instrumental to continuing their businesses. This in itself shapes the community as members feel supported and value the community and its continuance. They therefore encourage other contacts to join the community, supporting it further. People encouraged friends and contacts to join

later data collection episodes as an enjoyable and useful experience to build networks, exchange resources and learn from one another about the key theme of SE.

Business failure is personal and therefore psychologically challenging for entrepreneurs. This is the case even more so for sustainable entrepreneurs due to prosocial motivation and their personal values being vested in their enterprise (Hoogendoorn et al, 2019). Membership of the SE CoP is therefore psychologically invaluable as it provides psychological reinforcement and support, and drivers for the formation of the community are linked. Most members of the community often did not refer to their time before being part of the community. If they did, it was in broad terms stating that entrepreneurship per se is often a “*lonely business*” (C19). One expressed “*the power and value of collaboration*” instead of extolling the “*‘lone hero’ myth*” (C17). Members commonly expressed their membership in positive terms of the benefits reaped as *social capital*, as opposed to drivers which led them to join and were therefore more implied (Davidsson and Honig, 2003).

It may also be presumed that those who had already chosen to find, form or join the community did so to overcome isolated working and valued the community membership for this reason. It may well be that there may be non-members happily still working alone beyond the CoP. However, York and Venkataraman (2010) state how those entrepreneurs who embrace their enterprise’s hybrid nature and whose mindset is open to collaboration with others are most likely to have a self-sustaining enterprise which achieves its goals. Overcoming isolation can therefore be assumed to be a positive move towards a successful sustainable enterprise, or at the very least emotional stability in the case of enterprise failure and the resilience to start again (SE63).

*“One of the questions we're exploring through Forum's leadership programme is how we can enable this in ways that also help people to feel connected. People driving change can get burned out and can feel alone and over-whelmed. The more we encourage personal agency, the more we need to innovate the right support systems. Driving change is both inspiring and knackered!” (TL17)*

This quotation supports the view that prosocial motivation might encourage innovation and entrepreneurship. However this alone is not sustainable for individuals, and so overcoming psychological isolation via a CoP can provide some support systems and sense of connection these individuals require to sustain themselves in achieving their enterprise goals over time.

#### **6.4.1.2 Lack of resources: finance and skills**

*Lack of resources* refers to finance and skills that sustainable entrepreneurs often lack for their enterprises and seek others to provide directly or provide links to sources that they know about. Prosocial allied stakeholders become involved to fulfil this lack, often bringing together corporate partners or venture capitalists with sustainable entrepreneurs to help them scale their enterprises. Whether access to resources exists in some locations or not, many sustainable entrepreneurs are unaware of them or the process to access them. A sense of isolation may exacerbate this as they lack support and colleagues. This was mentioned repeatedly across different data collection episodes with many comments such as:

*“Funding applications and other forms are so complicated, I couldn't have done them on my own.” (SE66)*

Comments similarly reflected a concern about a lack of skills, and continuity of skills provision, such as:

*“Lack of necessary skills leads to a feeling of impotence.” (AGM, January 2015)*

*“Dependence on unstable volunteer base undermines small projects.” (C180)*

Further evidence supporting the theme ‘Lack of Resources’ is provided in Table 6-2 and is compared with the literature in Table 6-1.

This driver for the community was demonstrable in data where members discussed the issues they faced in explicit terms of a lack of resources or access to funding. Many members discussed the lack of access to funds or mentoring, or moreover the lack of knowledge as to how to access these, rather than a shortage of them. One funder of sustainable enterprises, one participant, summarised the issue of access most succinctly:

*“A whole spectrum of private and public impact investors are coming to the forefront (sic) as well but it is still an opaque market and difficult to navigate for (sustainable) entrepreneurs”.* (C160)

Some participants framed this lack in a more positive manner, discussing the gains from connecting with others to share their *human capital* (Davidsson and Honig, 2003). A participant at the face-to-face conference (PM277) stated that regardless of the method to connect people, being willing to make connections was vital in a world reliant on human capital (Davidsson and Honig, 2003) to address sustainability issues (Brundlandt Commission, 1987). They stated that if two individuals had an idea each and were willing to exchange these, this would create two ideas for each individual, thereby maximising knowledge-based resources. Their focus was on how we can all better work together, collaborate, communicate and co-create to solve the societal and economic problems relating to sustainability.

This links clearly to other drivers for the community: such as gaps in government provision and prosocial motivation which will be discussed next.

#### **6.4.1.3 Gaps in government provision**

In many societies, across the developed and developing world, government has reduced its direct provision of services, whether to local communities or individual citizens (Smith, 2010). Citizens have long been filling the “vacuum”, since 2010 at least, as evidenced by the existence of many mutual aid organisations and social enterprises. These new support organisations have further proliferated dramatically over the last year as need has increased during the pandemic and associated economic and social hardships.

The CoP observed included a number of participants who joined purely to be “give back” in the absence of wider government provision whether due to a reduction in support to entrepreneurs or less direct support for the environment and NGOs. This stepping up to provide where they saw a gap was evidenced by the involvement of members in various local community groups also in their daily lives. Gaps in government provision and a desire to be active in civil society, in collaboration with others, were certainly seen to be drivers for the community members here observed.

#### **6.4.1.4 Prosocial motivation**

A strong prosocial motivation was apparent amongst community members, in that they voluntarily gave their time, knowledge and skills to support other community members. This occurred both within and beyond the research project: many gave their email addresses or Twitter handles to engage beyond organised data collection episodes and continue to do so. Participants shared their views freely as part of the data collection episodes. Merely participating in data collection episodes without incentive, demonstrates a commitment to the field of SE and willingness to actively contribute to discussions and the co-creation of supportive policy. They spoke often of the other groups and non-profits they were involved with, whether at community gardens

growing vegetables, or youth groups, or other non-profit enterprises and schemes. Several participants advocated a societal move from consumerism to citizen action (C17, C19, A29, TL71). They want to create change to more sustainable lifestyles throughout society and some see system change as necessary for this.

How radical this system change might be varied from member to member as one member (C185), stated: "*We are at risk of playing the fiddle while Rome burns*". This was echoed by: "*This is still focusing on the current economic model, what about the more disruptive models??*" (SE95). Indeed, this push for radical change is likely to be driven by prosocial motivation more than anything else, they are keen to see rapid change that addresses pressing issues in society and the economy.

Others however saw a more incremental change as advisable and discussed how lobbying policymakers could take place and be more effective. They stated how this sustainability lobbying needs to be at least as compelling as the often, opposing lobbying by corporates. A member of the community (A27) discussed the example of how council-subsidised parking would negatively impact the usage of more sustainable commuting means, that is public transport or walking. They stated how it would increase local air pollution, yet lobbying by corporates with offices in the town overrode local residents' concerns about increased traffic, pollution and sustainability. A prosocial motivation led them to see how important lobbying as part of a larger community of citizens is, in order to counter these larger corporates.

One sustainable entrepreneur, (C180), was particularly conscious that the private sector may not adopt some sustainable innovations. They stated these might not fare well in a free market context, despite being beneficial to society and the environment. They felt there was sometimes a need for some SE innovations to be kept separate



from the mainstream in order to nurture and protect them from the harsh reality of an entirely free market system. They felt they might not be financially viable for some time. This echoes the concept that the triple goals of profit, social good and environmental improvement require additional skills and motivations. In addition they form an intrinsically more complex organisation. They may evolve better over time to incorporate all three, rather than from the outset attempting to blend three possibly conflicting goals, as espoused by Belz and Binder (2017).

One member explicitly stated how sustainability was core to her life and personal values, driving everything she does.

*“I still remember a class I had when I was 7 where we looked at energy efficiency in school and monitored when lights were left on.*

*This was so foundational to my life as you can see from my bio!”*

(SE187)

The drivers for individuals to join the CoP, with some illustrative quotations are shown as a table at Table 6-2.

**Table 6-2 Findings: Drivers and Illustrative Quotations**

Drivers	Illustrative quotations and discussions
Isolation:	
A. Geographical	<p><i>"Given the wide geographical spread of entrepreneurs and costs (time and money) of travel then online is perhaps more accessible to many, though it's great to meet people face to face too."</i>(C73)</p> <p>Mention of rural location facilitating recognition of sustainability problem to resolve but lacking support (My notes).</p>
B. Psychological	<p><i>"People driving change can get burned out and can feel alone and overwhelmed".</i> (TL17)</p> <p><i>"Entrepreneurship is a lonely process at times which is characterised by many ups and downs -a bit like a roller coaster. Entrepreneurs need to bounce back from adversity and hence need to be resilience (sic)".</i> (A101)</p> <p><i>"Discussing, talking and debating on a regular basis helps to keep faith, focus etc."</i> (C185)</p> <p><i>"Feeling of disenfranchisement from the "system".</i> (AGM January 2015)</p> <p><i>"Lack of necessary skills leads to a feeling of impotence."</i> (AGM January 2015)</p> <p><i>"Frustration with innovation process and feeling of isolation."</i> (AGM January 2015)</p>
Lack of resources:	
A. Lack of finance	<p><i>"There can be an issue of access to funding. E.g. in the UK, officials may not know where to put new structures such as social cooperatives."</i> (AGM January 2015)</p> <p><i>"Failure to fit into classical funding criteria and confusion regarding eligibility."</i> (Policymaker report)</p> <p><i>"Complex grant scheme(s), bureaucracy surrounding grants, and the fluidity of the external funding landscape."</i> (Policymaker report)</p> <p><i>"Lack of flexible and easily accessible funding schemes directed at end-users."</i> (Policymaker report)</p> <p><i>"Simplification of access to funding (needed)"</i>(AGM January 15)</p> <p><i>"The innovation process oftentimes is very time-consuming, thereby forcing end-users to dedicate their working hours to the project"..... "The issue of financial support becomes highly important as limited income can be attained elsewhere."</i> (AGM January 2016)</p>
B. Lack of (professional) skills	<p><i>"..you needed a professional to fill in the forms, the language was inaccessible, etc."</i> (AGM January 2015)</p> <p><i>"Dependence on unstable volunteer base undermines small projects."</i> (C180)</p> <p><i>"Lack of necessary skills leads to a feeling of impotence."</i> (AGM January 2015)</p> <p>Access to information but not necessarily knowledge (My notes)</p> <p><i>"Relies on individuals and group having the ability, skills and motivation to pursue and achieve goals"</i></p>

*"I am aware many entrepreneurs are stuck in the invention phase and cannot move beyond that phase, but sometimes is because the lack of knowledge and support". (SE143)*

*"I see in creating sustainable innovation via education is that academics often create amazing solutions to world problems, but their mindset and skills don't lend themselves to taking those solutions to market." (SE187)*

Gaps in government provision and devolved power:

Members talked about their wish to participate in democracy in action; their ability to positively influence policy to support sustainable entrepreneurship better:

A. Desire to shape the field

*"I'm thinking about a movement that comes from building new schools that are funded by communities, parents, local governments, and maybe school permaculture gardens or other small actions that could raise money for those schools right at the schools themselves - it seems to me that showing how it CAN be done and then arguing on that base to change policies might work better and faster than discussing and trying to get the perfect policies implemented right away." (C195)*

*"government is only one player" (AGM January 2016)*

B. Civil society filling the vacuum

*"Direct democracy – two directional flow – 'liquid democracy" (AGM January 2015)*

*"Government relying on civil society more to carry out some roles" (AGM January 2015)*

*"Individuals filling the vacuum; or power being devolved more locally" (AGM January 2015)*

*"Think about SEI (sustainable end-user innovation) as a means to engage / vehicle for activism for civil society in the context of a government and civil society deficit" (AGM January 2015)*

*"Universal Basic Income is being talked about more and more as a policy idea that solves many problems including reducing admin burdens on government welfare programs, boosting local economies, as well as recognising the value of caring and childrearing. However, I also see it as People's Venture Capital for sustainable entrepreneurs. It is a radical idea that could transform our world, espoused by many economists on both the right and the left." (SE187)*

Prosocial motivation:

As demonstrated by participation in data collection episodes; selflessly sharing information, time and skills without incentive or gain with both researchers and one another.

A. Desire to help others and develop businesses

Individual conversations observed between sustainable entrepreneurs and other stakeholders about funding or advice given

*"half the problem is that sustainability is seen as a cost, certainly in business, rather than a valuable benefit. (C134)*

B. Sustainability values

*"education should also strive to deepen students' understanding of their responsibilities as citizens and community members, and try to develop key shared values such as empathy, compassion and purpose." (TL8)*

*"show them examples of how young people can and do make a difference"(C132)*

*"They (young people) already have the right ideas - they are all concerned about global problems from an early (sic) age" (TL177)*

*"I still remember a class I had when I was 7 where we looked at energy efficiency in school and monitored when lights were left on. This was so foundational to my life as you can see from my bio!" (SE187)*

### 6.4.2 Practices of the Community of Practice

While drivers were often implicit in what people did and said, practices were more prominent in the CoP discussions. As stated in Chapter 4, Lefebvre et al. (2015) discuss the learning expectation of the entrepreneurs they interview, and the main findings are meeting others and sharing experiences to address common problems. This CoP is notably similar in that members of the CoP seek out membership to build networks, share resources with fellow community members, evolve business models by collaborating together and influence the environment in which they operate by participating in policy research and advocating for SE more widely.

The community therefore adopts various practices in response to the four drivers for being part of the community; that is their needs (for a sense of community and access to resources) and objectives (prosocial furthering of fellow enterprises and sustainability generally, and a desire to support local communities where local government provision has reduced) of its multi-stakeholder members. These can be summarised as the categories: *network building*, *resource sharing*, *evolving business models*, and *re-shaping the SE infrastructure*. The practices are the most notable dimension of the community, for while it is implicit as to what draws members to the community and its outcomes, its practices were observed first-hand and were explicitly stated or enacted by members. The CoP has fluid boundaries with new members being brought into the community by existing members. This occurred where a member of the community brought contacts and colleagues to subsequent research events and made introductions beyond the research events, thereby expanding the SE CoP. Discussions with sustainable entrepreneurs beyond the research events contribute to the wider understanding of the SE CoP practices.

#### 6.4.2.1 Network building

The community provides an opportunity for members to build their networks, by meeting likeminded people insofar as they have a shared interest in SE, and different people with different experiences, knowledge and skills to *support one another*. This heterogeneity of the community is cited by members as a key benefit, as it was by members themselves. “*Entrepreneurs need strong links to funding, academia, soul mates and business angels to help nurture their concepts and ideas...*” (C185) and showing how they support one another for the furtherance of SE: “*Research we have done at Cranfield suggests that social capital is a key component of entrepreneurial resilience. With social capital - the network of people - also facilitating the creation of new intellectual capital*”.(A101)

One member discussed the importance of CoP comprising of mixed members and how they can prove invaluable to sustainable entrepreneurs by creating a *network of networks*: “*it is a lot about PEOPLE who are members of several networks and who can easily act as interfaces*” (A67)

Members also introduced other members to contacts from their wider networks where appropriate, willingly sharing knowledge, information and contact details without personal gain to support achievement of sustainable enterprise goals. It was apparent that a *constellation of communities of practice* (Wenger and Wenger-Trayner, 2015), did indeed exist, as the SE community drew on overlapping communities such as specific industry communities, corporate communities, local business communities and others. Supporting one another in their SE goals was important to individual members.

#### 6.4.2.2 Resource sharing

The community shared resources informally by chatting to ask for and receive suggestions, thoughts and ideas in support of sustainable enterprises, i.e. both *lending expertise* and *resource seeking*, and more formally via *signposting*. This exchange of resources was vast and a key practice of the community. It was also much appreciated by members and recognised as deeply valuable. *Lending expertise* was often framed by recounting a story of something learnt or an experience gained.

*Resource seeking* and *lending expertise* supported one another symbiotically. At times the very action of seeking resources led to unexpected collaborations and outcomes. Friendships and emotional support may not have provided tangible practical solutions, but the sense of solidarity was often sufficient to keep struggling entrepreneurs motivated and able emotionally to continue in their enterprise. Likewise the act of lending expertise might not be a singular event, at times it provided a semi-mentoring support and could be reciprocal. Individuals sought resources such as funding, discussing opportunities during breaks with those well-connected in that field and enterprise capitalists for sustainability and hearing from others about their experiences (BL87, BL137, C160). *Master* and *apprentice* roles as discussed by Lave and Wenger (1991) in the communities of practices literature, as a collective mimicking a guild where the more experienced “train” and teach the newer members, were often interchangeable.

*Signposting* refers to members of the community who were clearly keen to share information and direct colleagues to other organisations that they had found helpful during their SE journey; this readiness to share was a key feature of the community, often including website links and contact information. The type of information shared was broadly clustered around funding, mentoring, innovation support, business

structuring and impact reporting, with some suggestions being localised and specific to a stated issue and others being geographically broader. Signposting was a strength of the community showing different practices and opportunities in different areas (by country or specific to a region such as the EU) and allowing many to access ideas of new ways of doing things. The speed of change was also discussed and how knowledge sharing helped members stay abreast of developments. Links and signposts to further information was significant, as can be seen in the Table 6-3.

#### **6.4.2.3 Evolving business models**

Community members were also keen to share new business models, again formally via shared online platforms or similar, but also informally in conversation; many sustainable entrepreneurs were proud of their innovations and were keen to see these spread to new cities, they saw it as a measure of success of their enterprise that it was replicable, and this supported their goal of furthering SE.

One member (A100) was keen to use innovation and technology to share good *practice*, in the sense of situated learning:

*Any organisation that share the desire (sic) to be part of a more sustainable world embraces the sharing of best practice. I've never met anybody who isn't interested in stories of how things can be done better!*

A major practice of the group was sharing ideas to encourage further innovation to solve sustainability issues and to facilitate the wider diffusion of those innovations, and at greater speed. This links directly to the prosocial motivation of the community; members are keen for their innovations to be replicated rather than focusing on sole and exclusive ownership or IP protection (SE71, SE95). The ideas shared stem from

all aspects of the community with all members equally holding diverse views which are respected.

The bases of these ideas are also equally varied, emanating from the fields of crowdsourcing and innovation, revising the education system to assist innovative thinking and problem-solving skills from a young age, implementing a government policy stream to join up the disparate policy areas of business and enterprise, environment and society.

Collaborative working was at the heart of these views, with my observation that sustainable entrepreneurs in this community are generally not competitive and happy to see their innovations replicated and adapted. These discussions very much also linked to the macro-level, a desire to open up institutions and processes to new ways of thinking and working in order to tackle the big issues of sustainability. While views were varied and at times in opposition, a respect for other community members was paramount and this is a sign of a strong CoP, not always harmonious and therefore at risk of groupthink, with discussions of different views in themselves facilitating learning (Wenger and Wenger-Trayner, 2015).

There were various examples of collaboration to replicate as well as discussions of how to scale enterprises by accessing funding not just to start up a business but also later on to grow it. One example of replication was a lift-sharing platform, Green Riders (SE279). This was an enterprise which had been started by sustainable entrepreneurs on a small Spanish island, safe in the knowledge that the market in their area was too small for Uber and other larger companies who elsewhere had brought down the prices of taxis. Additionally, public transport alternatives were negligible. The fact the business idea had been adopted in another Spanish island was seen as a success for



the original sustainable entrepreneurs who had no interest in growing the enterprise significantly but saw replication as a means of scaling the idea.

Another example of this replication to scale the enterprise idea, rather than the enterprise, was a sustainable entrepreneur who had found he could grow mushrooms in his apartment at minimal cost using the coffee grounds his local café found difficult to dispose of. He was able to collect these coffee grounds over time from a number of cafés so that he was able to produce enough mushrooms to sell to many local cafés and restaurants from his bicycle (SE71). As he had no interest in scaling the business, he simply wanted to maximise the output from the ground coffee, he was very happy to explain his enterprise process to others, in the hope that the business model could be replicated in other cities. The sustainable entrepreneurs who founded these enterprises were not looking to scale their businesses and were happy for other individuals to replicate the model elsewhere as they saw this as self-affirming to their values and a positive contribution to their goal of increasing SE. As was often the case, these enterprises were not their sole occupation, and this individual was a co-founder of an organisation to work with others to support further SE.

Equally members were keen to share examples to *learn from failure* in order to review the causes and help others avoid repeating those mistakes. One member, (SE63) advocated failure evenings where sustainable entrepreneurs could share what went wrong with their businesses as learning events. He was happy to explain why his sustainable enterprise to sell pork meat from a named and photographed pig had failed financially; consumers preferred cheaper, faceless meat that did not make them feel guilty about meat consumption. His “failure” in this enterprise, however, was possibly due to success in the goal of contributing to consumers being encouraged to think more about where their meat comes from: the farming modern processes which are

resource intensive and less environmentally friendly than the production of other dietary sources of protein, and maybe choosing to eat meat less frequently as result. He has since relaunched the enterprise to widen the range of ethically produced foods offered and it is now financially sound.

Another sustainable entrepreneur, who also represented the Employers' Group at The European Economic and Social Committee of the EU, as well supporting NGOs (PM277), spoke of her experiences: she discussed how failure is the greatest teacher in life and how mistakes can force us to innovate, and also to reach out to others to increase the *human capital* in sustainable enterprises (Davidsson and Honig, 2003). These themes very much speak to *evolving business models* as part of the community.

#### **6.4.2.4 Re-shaping the sustainable entrepreneurship infrastructure**

It can be argued that prosocial motivation should lead to positive societal outcomes. What is demonstrable from the data gathered from this CoP is that prosocial motivation leads members to participate in the SE community, to advocate for greater SE to bring it towards the mainstream from the “fringes”, and to engage in practices designed to innovate and co-create supportive policy. One member said that all entrepreneurship should be sustainable (TL17), which might sound prescriptive and restricting in a free market, however the next example demonstrates that this is not so extreme a stance.

How sustainability is certainly moving from the “fringes” to the mainstream due to the citizen opinion was seen in an interview with a policymaker (PM47) involved with funding bid criteria under the Horizon 2020 scheme. PM47 pointed out that while specific green policy exists to support environmental enterprises, the SDGs (SDGs, UN, 2015) have been incorporated into “mainstream” funding bids such as Horizon

2020, that is, applicants for funding need to demonstrate their enterprise addresses one or more of the priority SDGs (SDGs, UN, 2015).

The CoP both *advocated* for SE and actively participated in *innovating supportive policy*. *Innovating supportive policy* was the focus of many data collection episodes. It occurred by the community coming together to influence policymakers to better support the broader SE infrastructure within which sustainable enterprises exist. By broadening the *interconnected network*, or *constellation of communities of practice* (Wenger and Wenger-Trayner, 2015), the intention of members is to further SE to meet the needs of society within and beyond the framework of the current economic system. Members often have strongly held values about the vital need for sustainability and this prosocial motivation is seen in their interactions with everyone in both their personal and professional lives, which frequently overlap. Sustainability itself is a key goal for many members. As such, the *SE infrastructure* is protected, strengthened and enlarged.

The second aspect to this is *advocating for supportive policy*, and also to directly input into the infrastructure, via for example, taking part in open *policy making* discussions. Individuals seemed to advocate for sustainability and what those “in charge” could do to support sustainability in general, throughout their daily lives. As a community, many felt they gained greater impact to further the cause of SE. Practical examples of consultations and co-creation of policy were discussed within the community. Policymakers and influencers engaged with and joined the community, bringing agency to members and leading to more robust policy recommendations as a result of the insight of heterogeneous member participation.

One example was given by a politician, a Danish member of parliament (PM278), who had consulted a broad multi-stakeholder community locally to create civic policy for waste-water management that was effective and robust, with successful sustainable and social results. As a result the local community had their voices heard, which were varied and often conflicting, and better understood the complexity of policymaking. All participants in this consultation were active in collectively co-creating policy that benefited the whole community, as opposed to an imposed solution that could be flawed or biased towards the needs of one stakeholder group.

Likewise, this CoP came together to innovate policy to support sustainable innovation in the form of interviews, workshops and online and face-to-face conferences. The outputs of these data collection episodes were fed back to the European Union via the EU-InnovatE consortium, and recommendations made in collaboration with EU policymakers who formed part of the community too. This influence as outcomes of the community at the macro-level is discussed further in the next section of this chapter. Here follows a selection of illustrative quotations from the data relating to these practices.

**Table 6-3 Findings: Practices and Illustrative Quotations**

Practices	Illustrative quotations and discussions
Network building:	H2H was the term used by one member to describe human capital and its growing importance in the new economy (PM277)
A. Supporting each other	<p><i>“Yes utilising localised networks of similar like thinking individuals working on similar focused areas of development and interest. To enable common threads and solutions. In my view an entrepreneur is a solution provider to a specific problem and this type of networking group would be invaluable and help develop and nurture people” (C185)</i></p> <p><i>“Research we have done at Cranfield suggests that social capital is a key component of entrepreneurial resilience. With social capital - the network of people - also facilitating the creation of new intellectual capital” (A101)</i></p>
B. A network of networks	<p><i>“Perhaps events like this will enable people to make connections and set up an online network. Time and workload pressures can often mean that it's hard to take time out from the 'day job' and so virtual networks are perhaps more accessible and less time-consuming....and then maybe we need to start by supporting entrepreneurs to see the value of taking time out for support!” (C180)</i></p> <p><i>“green economy conferences and events help drive innovation and positive thinking/collaboration” (C73)”</i></p> <p><i>“Yes utilising localised networks of similar like thinking individuals working on similar focused areas of development and interest. To enable common threads and solutions. In my view an entrepreneur(sic) is a solution provider to a specific problem and his type of networking group would(sic) be invaluable and help develop (sic) and nurture people” (TL166)</i></p> <p><i>“Networks not only give insights but are a great sanity check!” (A101)</i></p> <p><i>“we were part of the 8 billion lives challenge at the impact hub in Munich. On the one hand we got professional feedback, which was very important to develop the idea further, on the other hand, it helped us grow our network and receive peer-to-peer support” (A27)</i></p> <p><i>“Networks such as Ashoka... link small scale sustainable ventures and increasing collective voice” (C11)</i></p> <p><i>“Entrepreneurs (sic) need strong links to funding, academia, soul mates and business angels to help nurture their concepts and ideas. These can be both formal and informal. Discussing, talking and debating on a regular basis helps to keep faith, focus etc” (C185)</i></p> <p><i>“I am not worried about this, I am working on some interesting collaborative approaches where it is essential to build networks.” (SE95)</i></p> <p><i>“Cranfield Univ itself has an example of a positive impact of government policy which aimed to build a network. The Carbon Trust (govt supported), which helps organisations reduce their carbon, has a scheme for universities. Back in 2007ish, I met them, introduced them to the relevant University execs, and we kicked off a project with their help. We are 29% down on our 2005 carbon baseline, progressing towards a 50% target by 2020. The Carbon Trust itself learned from the network it was working with, and we have fed back our learning into that network. Without their help there was no sign of us getting going at any pace.” (C14)</i></p> <p><i>“KTN offers value by running workshops where people from different communities get to meet and learn new things on the fringes of their own experiences” (TL166)</i></p> <p><i>“work on the network interfaces is important --- networks should not forget to reach out to other networks and powerful and established networks (the respective industry associations; the National Academies blueprinting innovation policy of governments; policy think tanks; and so on” (A67)</i></p>

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*“it is a lot about PEOPLE who are members of several network and who can easily act as interfaces” (A67)*

*“It'd be interesting to hear more about models that challenge the current paradigm - what do self-organising networks look like? How might citizen led networks be different (ie. platform cooperativism)?”(C18)*

*“Design the initial network with clear values and purpose but ensure it is only lightly structured, so that it can change flexibly and internally as it goes forward. Don't try to predict too much, leave plenty of gaps for exaptation (serendipity). Be prepared for it to get chaotic.”(SE95)*

#### Resource sharing:

##### A. Lending expertise

*“I want to share ideas, I'm not worried about losing them. I trade on my skills in making ideas happen.” (SE95)*

*“what we found is that face to face exchanges and sharing events .....are welcome arenas” (A67)*

*“Could be a positive enabler – accessing or creating communities e.g. for 3D printing” (AGM January 2015)*

*“a more enlightened approach to HEI funding that rewards universities, etc which actively mobilise resources (faculty, IP, seed capital) to support innovation clusters / small business development (e.g. Manchester in the UK, Leuven in Belgium)” (TL8)*

*“Private sectors already engage with entrepreneurs through open innovation schemes. I think the incentives are more around making it attractive and easy for entrepreneurs to engage in these schemes.” (BL82)*

*“Yes of course, you can learn so much from entrepreneurs. I just also went to the Young Global Entrepreneurs Prize by Unilever last week and the stories of these young people were so inspiring! Worth to say, that some of them quite university to pursue their dream. So we can learn so much from entrepreneurs that is definitely worth getting them involve in education by sharing their stories, but also by involving them in activities with young entrepreneurs to share their experiences and learnings through this process.” (A123)*

*“The best mentors I had were not motivated by money but by ideas and experience.” (SE187)*

*“Johnson and Johnson has a brilliant scheme where retired executives coach start-ups and NGOs that the foundation works with. It's a way for skilled, experienced people from the corporate world to devote considered time to issues that they feel passionate about, at a point in their lives where they have the head space and time to do it. In amongst the question of how we innovate our education system, is how we enable intergenerational knowledge and experience sharing.” (TL17)*

*“this points to the need for partnerships and collaboration between academia and business (and other stakeholders!)” (BL146)*

*“...support the involvement of the private sector because that's where innovation will be driven from to a large extent. The public sector and the education institutions are by and large supporters.” (PM104)*

*“green economy conferences and events help drive innovation and positive thinking/collaboration” (C73)*

*“Formal and informal both work well. I see the point re. virtual meetings but there is no substitute for a face-to-face discussion, in particular if complex data, models need to be shared....industry associations and conferences provide the basic framework / structure for discussion which then catalyzes unexpected collaborations ..” (BL164)*

##### B. Resource seeking

*“given the wide geographical spread of entrepreneurs and costs (time and money) of travel then online is perhaps more accessible to many, though it's great to meet people face to face too.” (C73)*

*“and sometimes those unexpected collaborations can be the most productive” (BL148)*

*“Research we have done at Cranfield suggests that social capital is a key component of entrepreneurial resilience. With social capital - the network of people - also facilitating the creation of new intellectual capital” (A101)*

## C. Signposting

*"In the UK, the Knowledge Transfer Network (KTN) was established and funded by the government to foster better collaboration between science, creativity and business. KTN has specialist teams covering all sectors of the economy including sustainability related sectors. KTN has helped thousands of businesses secure funding to drive innovation and supported them through their business cycle to see that investment through to success."* (TL166)

*"I believe that there is considerable IP locked-up in universities that would be of greater benefit if it were made available for exploitation. Individual institutions do this differently and the 'Glasgow model' seems to have gained limited traction <http://www.gla.ac.uk/services/rsio/ipcommercialisation/easyaccessip/>"* (TL166)

*"If we are looking at encouraging innovation and creativity and engagement in sustainability as a set of competencies then you need a whole institution approach ( see the Global Action Programme for UNESCO). SEEd is the only educational Key Global Partner in the UK on UNESCO GAP programme, working on whole institutional approaches. I.e. campus, curriculum and community. Evidence has shown this leads to sustained transformational learning across all aspects of an institutions life."* (TL177)

*"BSR defined a set of leadership competencies for sustainability in 2012 <http://www.bsr.org/en/our-insights/report-view/sustainability-and-leadership-competencies-for-business-leaders.>"* (C108)

*"Ken Robinson articulates this wonderfully well in his famous TED talk from 2006 @ education and creativity: [https://www.ted.com/talks/ken\\_robinson\\_says\\_schools\\_kill\\_creativity?language=n](https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity?language=n)"* (TL177)

*"This has been researched and practiced over 25 years and globally. The UN Decade for ESD found some common good practice. The key methods are: action learning/research for all learners and educators; socially critical thinking; social learning ( ie across ages and interest groups); understanding change; systems thinking "* (TL177)

*"One institution which seems to have successfully introduced mandatory service element before you can get your degree is La Rochelle business school - very well integrated into its community <http://www.esc-larochelle.fr/eng/The-School>"* (C108)

*"strongly recommend <http://www.jonathonporritt.com/world-we-made> - very readable book by Jonathon on world in 2050 written" by Alex McKay a secondary school teacher in 2050 and his students"* (C108)

*"Johnson and Johnson has a brilliant scheme where retired executives coach start-ups and NGOs that the foundation works with. It's a way for skilled, experienced people from the corporate world to devote considered time to issues that they feel passionate about, at a point in their lives where they have the head space and time to do it. In amongst the question of how we innovate our education system, is how we enable intergenerational knowledge and experience sharing."* (TL17)

*"Gamification has a strong role to play here (pardon the pun). For example, the app that [www.internetmatters.org](http://www.internetmatters.org) provide to facilitate a conversation between parents and their children has them compete against each other in a game which exploring the issues. They make it fun to learn what is a pretty serious topic at times."* (BL82)

*"Been replicated around world through Youth Business International <http://www.youthbusiness.org/> so can learn from them around mentoring sustainability entrepreneurs"*(C108)

*"Similarly see Shell Livewire International <http://www.shell-livewire.com/>"*(C108)

*"the Finnish model is called Timaketemia (Team Academy). We have been building our project in Brighton around Team Academy principles"* (C141)

*"<http://www.impacthub.net/> for any interested in this resource" (SE27)*

*"My mantra is that knowledge transfer is a contact sport. In my experience the connections made and ideas sparked by chatting over coffee and sandwiches far outweigh even such a medium as this <https://connect.innovateuk.org/web/sustainabilityktrn>" (TL166)*

*"Whitehall and Industry group is one we've had good experience with : <https://www.wig.co.uk/>" (BL164)*

*"I want to share ideas, I'm not worried about losing them, I trade on my skills in making ideas happen. <http://www.socialbalance.co.uk/opensourceguild>" (SE95)*

*"The World IP Organisation has its 'WIPO Green' database (<https://www3.wipo.int/wipogreen-database/>). Not sure how successful it is" (SE116)*

*"'Good legal brains' can promote 'the best' at the expense of 'the good'. We've researched alternative 'commercial' approaches here at Cranfield (<https://dspace.lib.cranfield.ac.uk/handle/1826/7448?mode=full>) (SE116)*

#### Evolving business models:

##### A. Replicating business model

Sustainable entrepreneurs were observed to be keen to share their business models; with advice for those who might want to emulate them. (SE71, SE63, SE66, SE69, SE95, SE277) (My notes)

A sustainable entrepreneur whose enterprise had failed, proposed group evenings to share learnings from failures to help others in their enterprises (SE63) (My notes)

##### B. Sharing and learning from failure

*"Sorry if I have offended anyone but often your programme works because of your passion. It is not necessarily replicable. We need replicable programmes, methods that do not (sic) rely on one person's idea or passion (TL177)*

*"And not only success stories, but also realistic failures" (BL181)*

#### Re-shaping the SE infrastructure :

##### A. Advocating for SE

Members of the community were keen to positively influence their broader networks to recognise the importance of sustainable entrepreneurship, adopt sustainable practices and support sustainable entrepreneurs. At many events, discussions emerged as to how this could be promoted further:

*"How can owner-managers influence the networks they are already members of e.g. chambers of commerce, Federation of Small Business, organisations for directors etc to include more fully practical advice and help about managing social and environmental impacts?" (C108)*

*"With sustainable development we have embarked on leading and managing a transition across the whole of our society. There is therefore aspects of education that will still reflect where we are coming from whilst we at the same time will have to work vigorously on developing transformative alternatives for the future. This will require from educators to believe in sustainability as future imperative, from educational institutions to be embedded in sustainable practices, and from educational policy-makers to bring curriculum development and educational infrastructure in line with such an orientation" (TL197)*

*"One thing they also always love is when I tell them (students) my own experience in developing countries with pictures I took and the emotions they get from it." (A99)*



*"If we are looking at encouraging innovation and creativity and engagement in sustainability as a set of competencies then you need a whole institution approach ( see the Global Action Programme for UNESCO). SEEd is the only educational Key Global Partner in the UK on UNESCO GAP programme, working on whole institutional approaches. I.e. campus, curriculum and community. Evidence has shown this leads to sustained transformational learning across all aspects of an institutions life."* (TL177)

*"I would suggest perhaps the other way round - sustainability entrepreneurs and businesses get a benefit if they mentor people from the private and public sectors so as to create more sustainability leaders/thinkers"* (A106)

One member as a politician advocates for sustainable entrepreneurship and support measures daily, she shared relevant information with the community to help them do likewise:

*"Universal Basic Income (The People's Venture Capital)"*:

<http://freakonomics.com/podcast/mincome/>

<https://www.vice.com/read/something-for-everyone-0000546-v22n1> (SE187)

*Skills the workforce of the future will need:*

<http://www.forbes.com/sites/sap/2014/05/12/are-you-ready-here-are-the-top-10-skills-for-the-future/#5f2fc1bf5719>

<http://www.independent.co.uk/news/education/education-news/student-tuition-fees-set-to-rise-as-government-unveils-university-teaching-reforms-a7030671.html>

*Higher Education and Research Bill (v worrying for innovation"* (SE187)

#### B. Innovating supportive policy

The events were arranged as part of an EU funded project to source supportive policy ideas and generated several which were discussed with policymakers at the European Commission. a Danish MP (PM288) discussed how open policy making helped create local, sustainable solutions. There were a significant number of comments therefore about policy for sustainable innovation and entrepreneurship. Discussions revolved mainly around:

Education; Funding; Networks; Scaling up; Measuring impact; Open policymaking

### 6.4.3 Outcomes of the Community of Practice

While practices of the community are noteworthy, their significance increases when linked to outcomes for the phenomenon of SE and these outcomes are broad and generalisable to give us insights that may apply to the wider field. Many of the outcomes noted directly relate to the drivers for joining the CoP, and for the practices undertaken by the community together.

Four outcomes were revealed from the thematic analysis of the data, carried out according to Boyatzis (1998) and Gioia et al. (2012). These were *individual empowerment, enterprise scaling and proliferating, civil society strengthened* and *mainstreaming SE*. These will now be discussed in turn.

#### 6.4.3.1 Individual empowerment

Individuals gained agency and confidence from participating in the community and its practices. It was observed that many members *developed and leveraged new skills and resources* acquired through interactions within the community. Members stated how much they enjoyed, benefited and learned during data collection episodes, and that they would continue to do so by remaining in contact. Members who maybe had felt particularly isolated previously, felt supported and motivated to continue, not just with a sustainable enterprise, but with other voluntary or additional workplace tasks relating to sustainability. Members often felt their commitment to sustainability received a boost from interacting with others, and I observed this most in the demeanour of those participants. Some individuals also stated that they felt they had “more voice” to *make a difference* and could have tangible impact on issues that mattered to them and government support for SE, as they had the opportunity to

advocate for innovative supportive policy with a high level, policymaking body going to hear their thoughts and recommendations.

Sustainable entrepreneurs did not seem to differentiate themselves as individuals from their sustainable enterprises. As stated, the *strong prosocial motivation* of all members to participate in the community was most commonly sustainability, and this impacted how they chose to live as well as work, whether as sustainable entrepreneurs or as associated stakeholders, for example, academics research SE, funders with a specialised offering for sustainable enterprises, policymakers involved with SE or environmental solutions, and so on. The learnings and personal knowledge development were therefore hard to disentangle and categorise as belonging to either the individual or the enterprise. Members said they felt supported and strengthened through interaction with other like-minded individuals, and this was one of the things they most enjoyed when interacting with the community. What brought them to the community, also reinforced their membership as this prosocial motivation was strengthened through membership which allowed them to *make a difference*.

This in itself is an interesting finding; while many entrepreneurs focus on their personal development and may create successful enterprise after enterprise, becoming serial entrepreneurs, the sustainable entrepreneurs in this community were more focused on their prosocial motivation, whether this was pursued via multiple enterprises or just one, this also was the case for collaborators and supporters. While no doubt learning and personal development were achieved at the individual level, if members moved on to another enterprise, diffusing the concept of sustainability as a core value often remained the key focus, linking a community driver of prosocial motivation to an outcome at the level of society. Individuals certainly did feel a strong sense of self-actualisation with the success of a sustainable enterprise they were

involved with, as their personal values are commonly tied into the goals of the business, even more so than a profit-driven entrepreneur (Battilana and Dorado, 2010), however they were also very willing to learn from and share learnings from failures.

#### **6.4.3.2 Enterprise scaling and proliferating**

It is known that the traditional system of business grants often rewards enterprises seen to have the most potential but may not provide funding for the smaller business which is more readily replicable and therefore could have a greater positive effect cumulatively (Audretsch et al., 2007a). *Achieving triple bottom line success* in the context of an often-complex market and business environment is therefore the key goal for most sustainable entrepreneurs and this was facilitated by the CoP. The community therefore goes against the status quo of for-profit businesses by encouraging more enterprises into existence, such as the Beyond Coffee example (SE71). This enterprise comprises an urban mushroom farm, grown from coffee grounds waste. The owners are very keen to share their enterprise idea for replication, rather than looking to scale. The community sees the proliferation of small moderately successful sustainable enterprises as a measure of success for SE, rather than just a few individual largescale sustainable enterprises.

By creating an environment for business collaborators and sustainable entrepreneurs to make contact, along with specialised sustainability funders, the CoP facilitates the scaling of enterprises, via funds for scaling, rather than just start-up loans, and corporate expertise to help sustainable entrepreneurs *getting the right concept*, and *getting the resources or skills* they may lack to grow their business. This was seen in the example of the online pig meat business who honed the business concept as a result of feedback received during discussions (SE63). This proliferation of enterprises

in itself contributes to *mainstreaming SE*, which I discuss further later, as it becomes less something unusual operating on the “fringes” without the capability to ever scale up, and becomes more visible as a more common and accepted business model.

#### **6.4.3.3 Civil society strengthening**

Members as citizens stated that they feel empowered by the community to achieve more than they could as individuals alone and their prosocial motivation is directed towards collective action for the good of civil society. Community membership is felt to be a positive force for collective action towards more sustainability, and for more immediate improvements in the local, social environments of members. By living sustainable lives as much as possible, members draw more people into the SE community (*grow the community*), referring friends and acquaintances who may find it useful in their work or lives. The recruitment for data collection episodes exemplified this as public communications were placed in green and societally focused newsletters and websites, also those targeting entrepreneurs and innovators, however the majority of participants were acquired through word of mouth and personal contacts.

The community very much constituted an *interconnected network* which was strengthened via participation. Often very specific local issues are addressed via members of the community in relaxed conversation, such as collective vegetable gardening with some produce donated to the less able in local communities (C19), and other members, who participate in wider networks, shared their knowledge and insights on similar enterprises.

These sorts of leisure activities and hobbies demonstrate that members are so committed to sustainable lifestyles that they exemplify this in their own lives and their enterprises are often the result of an innovation they came up with, to resolve a

sustainability problem they experienced personally. This is certainly the case of the sustainable entrepreneurs who devised a platform to facilitate connecting those needing a lift and those prepared to offer lifts for a small fee (SE279). While the community is seen to empower members as individuals, the benefits are also felt collectively by civil society, and the communities around them.

This was the vision of one member:

*“I'm thinking about a movement that comes from building new schools that are funded by communities, parents, local governments, and maybe school permaculture gardens or other small actions that could raise money for those schools right at the schools themselves - it seems to me that showing how it CAN be done and then arguing on that base (sic) to change policies might work better and faster than discussing and trying to get the perfect policies implemented right away.” (C195)*

Another sustainable enterprise owner within this CoP; provides a platform where citizens can exchange their skills as units of time, called Spice Innovations (C180). The purpose is to share resources and skills equitably and to ensure that those who participate both help others, and may in turn be helped when they need a service or handmade product in return. This is a sustainable enterprise, with goals relating to society and the environment as well as profit for the founders, and also supports many small and medium sized sustainable entrepreneurs.

Some within the community clearly saw government involvement as unwelcome interference or potential constraining the innovation and change needed.

*“Again, I'm nervous of these kinds of policies because they can too easily become subject to rigid assessment principals which are stifling to innovation.” (C141)*

*We tend to get stuck on products, because they are real. When I am looking at emergent systems, on the other hand, nothing is real" yet. We are in a quantum world where the things we are measuring are merely potential and as soon as we measure them we have lost the bigger picture."* (SE95)

However, others saw government involvement with the CoP as a means for SE advocates to have greater lobbying or other influence, as an opportunity to work with government collaboratively to resolve issues and co-create effective policies in a new paradigm. Some referred to existing networks and their lobbying work: "*Networks such as Ashoka... link small scale sustainable ventures and so increasing collective voice*" (C11).

Common themes were the need to work together to "plug" gaps in previous provision by government and also using this as an opportunity to shape the environment within which SE exists and operates by *strengthening civil society*. Within practices, discussions about changes in government provision and society's responses to this were mentioned. As part of these discussions, there was an acknowledgement, that it felt as though things were changing in the economic and governance systems in terms of the power locus, and so now was a time for involvement in the community to positively affect the direction of change:

*"Advocating new ways of governance and policy making:"* (PM288)

*"Direct democracy – two directional flow – 'liquid democracy'"* (AGM workshop, January 2015)

In doing so, the goal was always to mainstream SE. As one member said, "*all entrepreneurship should be sustainable entrepreneurship*" (TL17). This was supported by interviews with policymakers who confirmed that Horizon2020 funding for projects

now required an environmental goal, ideally a clear link to delivering on one of the SDGs (SDGs, UN, 2015) (PM47).

#### **6.4.3.4 Mainstreaming sustainable entrepreneurship**

A key desired outcome for the community is greater sustainability, i.e. *sustainability as the new norm* and a larger voice for SE to effect this. The events observed did indeed lead to greater dialogue with key policymakers at the European Commission and policy recommendations. At the meso-level, the CoP did also support the evolution of new business models and their replication and saw that SE could affect system change, becoming the *new capitalism in business*. Within the CoP, a number of shared practices which help the community members develop their own knowledge and learning to solve problems beyond their enterprise alone were observed. The CoP members therefore contribute the field of SE more generally, due to a shared prosocial motivation and shared commitment to the domain, and in doing so contribute collectively to strengthening civil society and mainstreaming SE.

Some members also stated that there was no role for policy and government in sustainable innovation and entrepreneurship, because they were “better off doing it on their own” (SE95). They were averse to government intervention (Keynes, 1936; Audretsch et al., 2007) which they saw as being offered with some “cost”, usually in the form of developing the business in a certain way and reporting. Entrepreneurs more widely welcomed the freedom that comes with not being “ beholden” to external regulation. Interestingly, the policymakers and influencers also expressed similar views, preferring for the market to decide rather than government regulation. Indeed,



it was often stated that it was not the role of policy to intervene in what was often seen as a matter of consumer choice, beyond providing education and information (PM47).

It was evidenced however that simply by engaging in data collection episodes, members were influencing SE to become more mainstream, as they provided policy ideas and shared their experience that fed into policy recommendations for the EU government to better support SE. During the data collection episodes, it also became apparent that members of the CoP were re-shaping the environment in which they operated, facilitating replication and scaling of their own and fellow members' enterprises. They engaged in practices that made SE less unusual, and far more mainstream.

Quotations which exemplify these outcomes are found in Table 6-4.

**Table 6-4 Findings: Outcomes and Illustrative Quotations**

Outcomes	Illustrative quotations and discussions
Individual empowerment:	Many community members said how much they had learnt by coming together.
A. Develop and leverage skills and resources	<p><i>"I've made very good experiences with incubators and start-up programmes. For example we were part of the 8 billion lives challenge at the impact hub in Munich. On the one hand, we got professional feedback, which was very important to develop the idea further, on the other hand, it helped us to grow our network and receive peer-to-peer support"</i> (SE27)</p> <p><i>"utilising localised networks of similar like thinking individuals working on similar focused areas of development and interest. To enable common threads and solutions. In my view an entrepreneur is a solution provider to a specific problem and this type of networking group would be invaluable and help develop and nurture people (sic)"</i> (TL166)</p>
B. Feel supported and therefore motivated	<p>Community members frequently stated how they felt able to continue despite various challenges, because of the support of the community.</p> <p><i>"Perhaps events like this will enable people to make connections and set up an online network. Time and workload pressures can often mean that it's hard to take time out from the 'day job' and so virtual networks are perhaps more accessible and less time-consuming....and then maybe we need to start by supporting entrepreneurs to see the value of taking time out for support!"</i> (C73)</p>
C. Make a difference	<p>It was also seen that members derived personal satisfaction and were energised through participation.</p> <p><i>"what we found is that face to face exchanges and sharing events ... are welcome arenas"</i> (A67)</p>
Enterprise scaling and proliferating:	
A. Achieving triple bottom line success	Enterprises benefit from the community by exchanging information on how to be more sustainable and gain tips and information to secure the sustainability of their enterprise
B. Getting the right concept	Enterprises are honed within the community where members may act as mentors or as prospective customers; feedback is received and concepts improved
C. Getting the resources needed	Much of this was implicit but it was clear that participation in the community was important to members, they joined voluntarily, they remained active, returning to subsequent data collection episodes and staying in touch with one another.

Civil society  
strengthened:A. Grow the  
community

The community grows as networks are built and new members join the sustainable entrepreneurship movement. It was seen that members brought colleagues and personal contacts into the community, encouraging others to also attend later data collection episodes.

*"Digital databases are all well and good, but I am looking for data ecologies which can access what is inside people's heads (and also out in nature). The map is not the territory, it's not a good idea to separate the idea from the thinker. If the digital world can make connections between people, all the better."* (SE95)

*"One of the questions we're exploring through Forum's leadership programme is how we can enable this in ways that also help people to feel connected. ...The more we encourage personal agency, the more we need to innovate the right support systems..."* (TL17)

*"Emergent systems theory suggests informal will be better and that is indeed my experience."* (SE95)

*"Who should be involved? Should they only include like-minded individuals such as other innovators, or other business people from larger organisations and academics? How important is the mix?"* (A101)

B. Interconnected  
network

*"Entrepreneurs need strong links to funding, academia, soul mates and business angels to help nurture their concepts and ideas. These can be both formal and informal. Discussing, talking and debating on a regular basis helps to keep faith, focus etc"* (C185)

*"there is also some fear that innovative business ideas get stolen" in an early stage - trust is a major issue in these networks - f2f and informal might work better for some issues "* (C11)

*"It would be great to have a network for like-minded innovators so it remains creative and innovative- danger of becoming too mainstream and limited if big business and govts involved- though they could be invited to an annual conference perhaps?"*

*"I think you should be prepared to utilise all methods of communication. Face to face is best when dealing with difficult scenarios in my opinion. Virtual can help to keep focussed. All methods of communications in developing opportunities has their merits"*

*"Research we have done at Cranfield suggests that social capital is a key component of entrepreneurial resilience. With social capital - the network of people - also facilitating the creation of new intellectual capital"* (A101)

*"work on the network interfaces is important --- networks should not forget to reach out to other networks and powerful and established networks (the respective industry associations; the National Academies blueprinting innovation policy of governments; policy think tanks; and so on"* (A67)

*"Design the initial network with clear values and purpose but ensure it is only lightly structured, so that it can change flexibly and internally as it goes forward. Don't try to predict too much, leave plenty of gaps for exaptation" (serendipity). Be prepared for it to get chaotic."* (SE95)

Mainstreaming  
sustainable  
entrepreneurship:A. Sustainability  
the

*"if individuals and businesses all collaborate on demanding sustainable solutions to their needs, a critical mass to drive innovation can be reached"* (TL198)

*"Think about SEI (sustainable end-user innovation) as a means to engage / vehicle for activism for civil society in the context of a government and civil society deficit"* (AGM January 2015)

- new norm in society
- "I think education goes beyond a school or university setting. If we want to foster sustainable innovations and in the long run transitions to sustainable societies, we need to take a broader look at society, including those who have left school/ university some time ago. I agree that this is an educational challenge, but I think we have the possibilities, if we think about digital technologies for example"...(A27)*
- "Can't help but think there's a link between that and current job market. Have you seen Collectively: initiative funded by big brand comms budgets that wants to engage this community to collaborate around 'passion points' where personal and planetary issues intersect e.g. one area of interest is cooperative models for living in response to the challenge of getting on the housing ladder.<https://collectively.org/> (C17) but also teach the tools to integrate sustainability into our work and life" (C28)*
- "I'm thinking about a movement that comes from building new schools that are funded by communities, parents, local governments, and maybe school permaculture gardens or other small actions that could raise money for those schools right at the schools themselves - it seems to me that showing how it CAN be done and then argueing on that base to change policies might work better and faster than discussing and trying to get the perfect policies implemented right away." (C195)*
- "A starting point would be the awareness to be interrelated and therefor co-shaping the world." (C196)*
- "we need to make schools more porous so they become part of the community, rather than separate silos that no one can enter. Culture has to be developed by people" (C141)*
- ". Sustainability is simply a part of this complex mix - so to isolate it, as mentioned above, risks excluding a lot of the factors that frame both societal problems and potential solutions (e.g. role of governments, cultural norms, etc)" (TL8)*
- "It'd be interesting to hear more about models that challenge the current paradigm - what do self-organising networks look like? How might citizen led networks be different (ie. platform cooperativism)?" (C18)*
- B. New capitalism in business
- "One issue is the low importance of CSR in blue-chips. CSR tends to be low in power & salience on the corporate agenda"*
- "A whole new mode of digital governance is present in multiple scenarios, and furthermore at least two of the scenarios suggest a collapse of the current governance regime."*
- "we are taught to aim at profit and short term results, we are taught to be competitive and the system itself is still too old and linked to traditions. No one teach us to be socially responsible and to think as a community rather than individuals. Additionally, we grow up in a hierarchical system, that strongly affects our perceived effectiveness as individuals." (C97)*
- "I think 'self-management' is important too - really like that framing. I guess if you go down that route, then a person's values become increasingly important i.e. the fundamental goals that orientate you as an individual become vitally important?" (C17)*
- "we need profiles of young entrepreneurs and social entrepreneurs who are successfully improving social and environmental conditions" (C108)*
- "the point is that programme innovation needs to be embedded in cultural integrity. We have to find ways in which we do deep institutional transformation on a values-based framework so that programmes become the public expression of deep belief systems. Policies might help us find direction, but they are not particularly good at driving sustainable transformation" (TL197)*
- "What we need is less interference by those with an agenda - politicians, business. It is not about replicating themselves. This is about facilitating the space for new thinking and creativity." (TL177)*

*"Its more than education, its the cultural thinking of who is 'successful' in the modern world. And even though education can suport (sic) this shift it can not by itself." (BL181)*

*"lets take a different view that private sector businesses should be responsible corporate citizens and invest in sustainability education. Perhaps it could be linked with their public environmental record (reports) to aid with demonstrating responsibility and organisations that contribute more should be recognised and awarded accordingly?" (BL167)*

*"I'm thinking about a movement that comes from building new schools that are funded by communities, parents, local governments, and maybe school permaculture gardens or other small actions that could raise money for those schools right at the schools themselves - it seems to me that showing how it CAN be done and then argueing on that base to change policies might work better and faster than discussing and trying to get the perfect policies implemented right away". (C195)*

*"If these deep associations are developed then we completely reframe the question of whether our lives follow a sustainable path or not." (C19)*

*"The famous Einstein quote about not solving problems with the thinking that created them? Disruptive innovation" (SE95)*

*"This is still focusing on the current economic model, what about the more disruptive models??" (SE95)*

## 6.5 Summary of Findings

I confirm the existence of a SE CoP according to the definitions of Wenger (2011) and Wenger and Wenger-Trayner (2015), in that I evidence a *community* within a specific *domain* and noted *shared practice*. This is of importance to explore the hitherto neglected meso-level according to Johnson and Schaltegger (2019) and provides insights how shared practices and inter-participant situated learning has positive outcomes for the domain of SE. It differs from networks and ecosystems by the focusing on the interactions, that is *practices* of members collectively, and the informal learning that is developed in this way.

The drivers found in this CoP, those of *isolation*, *lack of resources*, *gaps in government provision* and *prosocial motivation*, are also found in the academic literature reviewed (Bacq et al., 2016; Hoogendoorn et al., 2019). In the literature however, building networks is stated as a possible solution to the issues highlighted, but it is not developed further as to how this might be achieved.

Different individuals stated the same drivers as listed above, often unprompted, in different data collection episodes. Likewise, practices, such as the importance of *network building* to fill resource gaps and how this community filled this purpose, were discussed in different research data collection episodes; this was mentioned in the interviews with policy shapers from think tanks, coded as thought leaders (TL), and also in the workshops and further discussed in the online conference. It was then evidenced in my observations of participants exchanging direct contact details and even today, five years later, participants actively follow one another on Twitter and LinkedIn.

Sustainable entrepreneurs made connections and acquired resources and support for their businesses on an ongoing basis. The *resources shared* were often signposting to websites and organisations in responses to questions generated organically in discussions. These resources assisted fellow participants, whether for sustainable entrepreneurs to progress a sustainable enterprise or for stakeholders to develop broader knowledge of developments in the field of SE.

Sustainable entrepreneurs gained feedback and ideas for their enterprises, generating strategies to further *evolve those business models*, such as broadening the scope of a business, as was the case with *meinekleinefarm.com* (SE63), or finding new applications for an innovation, such as measuring carbon footprint in additional industries dependent on the economy structure of a country (e.g. Cranfield University's modelling programme in WP5) (A12).

Another practice observed within this community was *re-shaping the SE infrastructure*; the community did so by contributing to policy ideas and developing them into policy recommendations ready for adoption by the EU. They also did so in other less direct ways, such as considering and adopting success measures for sustainable enterprises such as BCorps certifications, discussed independently during the workshops, and spotlighted within the final conference (TL276, BCorps Europe), allowing such certifications to become more known, accepted and mainstream in various industries and countries, with participants sharing examples from personal knowledge and experience.

I observed that these practices led to a number of outcomes for the community, such as the individual members who gained knowledge and learning, both for themselves and enterprises they owned or became involved with, became *empowered* via their

interactions with the community, they chose to continue enterprises which they may otherwise have become too disheartened to continue with, and participants who were part of the community due to prosocial motivation, found a positive and *empowering* experience from sharing their ideas and knowledge. from discussions with other participants. and at the macro-level, for government in terms of policy recommendations, society and the economy which sees SE become more commonly accepted as a business model. It seems logical therefore to surmise that these positive outcomes are replicable and also generalisable for our deeper understanding of the phenomenon of SE, and thereby sustainability per se. This will be discussed in more detail in Chapter 6.5.

The outcomes of the community are implicit rather than explicit, derived from what people said would, could or should happen as a result of their actions, discussions and enterprise activities. However, again there is much data to support these outcomes as probable more than just possible.

The next chapter (Chapter 6.5) discusses these findings (drivers, practices and outcomes), what we can learn from them for sustainable entrepreneurial practice and their contributions to literature, in greater detail.



## **7 DISCUSSION AND CONCLUDING COMMENTS**

### **7.1 Introduction**

In this final chapter, I discuss the key insights of the study undertaken and contributions to SE literature.

I begin in section 7.2 by reintroducing the motivating objective first stated in Chapter 1 at section 1.1, my overarching research question first stated at section 1.2 and the three research questions first posed at section 1.3. I then discuss how the findings respond to the motivating objective at 7.2.1, the overarching research question at section 7.2.2 and the research questions at section 7.2.3. In section 7.4, I discuss the how the findings from this study show how a CoP can address the challenges faced by SE (as first highlighted from the limited extant literature in Table 3-1 in section 3.7 and restated at Table 6-1 in 6.2) and contribute to SE literature. In section 7.4, I discuss the contributions at the micro-level (section 7.4.1), the meso-level (section 7.4.2) and the macro-level (section 7.4.3), specifically how a CoP at the meso-level connects the micro- and macro-levels to further the phenomenon of SE. I provide implications for SE policy and practice by stakeholder group in section 7.4.4. Section 7.5 provides concluding comments. I acknowledge the limitations of this research in terms of the data and methods (section 7.5.1) and provide next steps for research to extend this study at section 7.5.2. The chapter ends with conclusions to this thesis at section 7.5.3.

### **7.2 Sustainable Entrepreneurship as a Community of Practice**

The findings (Chapter 6) were considered with regard to how they fulfil the motivating objective (section 1.1), and address the overarching research question (section 1.2) and three research questions (section 1.3) which guide this thesis.

### 7.2.1 The Motivating Objective

Motivating objective: *To examine the phenomenon of sustainable entrepreneurship at the meso-level, in order to better understand how it can be enabled.*

The importance of sustainability is widely accepted as one of the key challenges facing the world today. As discussed in Chapter 1, the grand challenges of scarce resources and how to meet increasing demands on these resources, alongside issues of poverty and social injustice are pressing (Brundtland Commission, 1987; UN SDGs, 2015; Stoner and Wankel, 2007; IPCC, 2021). Sustainable entrepreneurship is raised by Schaltegger and Wagner (2011) amongst others, as posing a potentially invaluable solution to these challenges, as discussed in Chapter 3. Firstly, SE prioritises environmental and social goals alongside the goal of profit, known as the triple bottom line (Elkington, 1997). Secondly, SE has emerged from the tradition of entrepreneurship, embracing innovation to renew capital (Schumpeter, 1942) and exploit market opportunities (Cohen and Winn, 2007). These ideas are brought together in the work of Johnson and Schaltegger (2019) who discuss the potential of SE individuals at the micro-level to influence the macro-level. On the understanding that SE is a helpful phenomenon to address the environmental and social challenges (SDGs, UN, 2015), I was able to collect data from involvement in the EU-InnovatE project as described in Chapter 2 (EU-InnovatE, 2017). In this project, following Johnson and Schaltegger (2019), SE individuals from the micro-level looked to influence the macro-level by attending a number of research events to help shape policy for innovation and sustainable entrepreneurship. My philosophy and methodology for my study are discussed in detail in Chapter 5. As part of the abductive process discussed in that same chapter (Peirce, 1877; Campos, 2011; McAuliffe, 2015), I conducted the review of the SE literature in Chapter 3, and at section 3.8

showed a gap with in the literature at the meso-level (Johnson and Schaltegger, 2019) with potential to better understand the SE phenomenon (Thompson et al., 2011). At Chapter 4, I reviewed the meso-level literature, providing support for the choice of CoP as a meso-level lens for SE in this study. The findings are discussed at Chapter 6 and provide insights to enable SE, which are further discussed throughout this concluding chapter. The findings demonstrate that individuals form the CoP to positively respond to factors from the macro-level, which negatively affect sustainable entrepreneurs, such as funding policy creating a lack of finance, and government start-up policy lacking localised support infrastructure for SE (Hoogendoorn et al., 2019). The CoP also forms to impact the macro-level and create a more conducive environment for SE by taking part in policy making workshops but also as a CoP developing a civil society solution to reduced government provision (Miller et al., 2012) (sections 6.4.3.3 and 6.4.3.4). It also provided a vehicle to explore SE at the meso-level (Johnson and Schaltegger, 2019) and provide contributions to the SE literature. In so doing, my findings contribute to understanding how SE overall could be better enabled (section 6.4.3.2), thereby achieve my motivating objective.

I proceed next with a discussion of the research questions.

### **7.2.2 The Overarching Research Question**

*Does a community of practice form around sustainable entrepreneurship, and if so, what does it look like?*

Wenger (2011), and Wenger and Wenger-Trayner (2015), defined a set of criteria by which CoPs can be identified: a) a shared *domain*; b) a *community*; and c) *shared practices*. Findings demonstrate that the observed collection of actors involved in the EU-InnovatE project (sustainable entrepreneurs and SE stakeholders) clearly met these criteria to be viewed as a CoP. Firstly, the findings show (section 6.4.1.4)

*prosocial motivation* to be one of the drivers for the individuals observed to come together and interact, despite different actor roles. This *prosocial motivation* is seen as a commitment to help others in SE and shows a shared *domain* of SE.

Secondly, this commitment, the willingness to share, and continued and unguided interactions between participants after the research events had ended, demonstrates them to be a *community*. Participants in data collection episodes either explicitly stated such a commitment or demonstrated it in their willingness to share and learn following Lave (1991), to participate in events for no monetary compensation, and offer help, advice and sources of information to others. Conversations were often observed over event breaks around different areas of SE, simply because participants were interested and asked questions or generated discussions organically. Following Wenger (2011), they act as a *community*, building relationships and introducing friends and acquaintances who also share the *domain* of SE: that is, being sustainable entrepreneurs and allied stakeholders committed to the propagation of entrepreneurship to solve issues of sustainability. Participants in data collection episodes, as above, reached out to others in SE to join in further data collection episodes; they also offered their contact details to others to continue discussions and broker support with friends, colleagues and contacts beyond data collection episodes.

Findings also show a range of *shared practices*, as described in detail in Chapter 6 (section 6.4.2). The practices observed constitute *shared practices*, as defined by Wenger (2011) and Wenger and Wenger-Trayner (2015). They are not to be confused with examples of “best practice”, though the exchanges may include these. *Shared practices* are the interactions where individuals collaborate in order to learn, and problem solve. They share information, sources of support, provide mutual support and help to one another. *Situated learning* (Lave, 1991), that is informal learning to

build knowledge, takes place therefore, through these *shared practices* as detailed in the findings at Chapter 6 (section 6.4.2). While *situated learning* is not described in the literature as a criterion for a group to be defined as a CoP, it is seen to be an outcome of the shared practices and often a driver for the constitution of a CoP. It also differentiates CoPs from networks and other meso-level groups (discussed in Chapter 4 at 4.4) whereby learning is not deemed a key outcome.

In response to my overarching research question, findings confirm that the sustainable entrepreneurs and allied stakeholders observed constitute a SE CoP. They meet the three criteria stated in Chapter 1 (section 1.2) and discussed further in Chapter 4, according to Wenger (2011), and Wenger and Wenger-Trayner (2015). The importance of this communities of practice lens is introduced as a distinct theory also in Chapter 1 and expounded in Chapter 4, whereby individuals come together as a *community* in furtherance of their shared *domain*, in this instance, SE. I have also discussed in Chapter 6 what this SE CoP looks like and will respond further in the three research questions which are addressed next.

### **7.2.3 A Response to the Research Questions**

As discussed in Chapter 1 at section 1.3, from the overarching research question, I formed three research questions for this study. There are as follows:

*RQ1. What drives the formation of a sustainable entrepreneurship community of practice?*

*RQ2. What shared practices does the sustainable entrepreneurship community of practice enact?*

*RQ3. What outcomes arise from these practices, and for whom?*

That is, what are the outcomes of these practices, and how do the outcomes contribute beyond the CoP: to the individuals themselves, their enterprises, the wider field of SE and thereby to the phenomenon?

I shall first answer RQ1:

Findings show that the SE CoP formed through drivers of *isolation, lack of resources, gaps in government provision* and *prosocial motivation*. These drivers are derived from the analysis of the data (Chapter 6, section 6.4.1). The drivers are also supported by the literature (Hoogendoorn et al. 2019; see also Table 6-1) as relating to the common issues affecting SE. The factors that motivate individuals with an interest in SE to come together are thereby stated in this study as drivers for the formation of the CoP and relate directly to the issues they come together to resolve.

RQ2 is responded to by the *shared practices* demonstrated by the CoP, that is what happens there and what do members do? The findings show the *shared practices* of this SE CoP to be: *building a network, resource sharing, evolving business models* and *re-shaping the SE infrastructure*. *Building a network* is key to members, who additionally develop strong interpersonal relationships as a community and remain in contact beyond the data collection episodes. They are able to draw on each other's wider networks as a result. Chapter 4 cites Wenger et al. (2011) who explain the theoretical relationship between a network and a CoP, a CoP being a *locus for learning* (Lave, 1991) with a network of relationships being potentially embedded within the CoP (section 4.4). Members *share resources* such as knowledge, by signposting to useful organisations for information and funding. Sharing in this way directly addresses the problem driver of *lack of resources*. However, beyond this, members also co-create novel solutions to business challenges and, in doing so, *evolve new business*

*models*. Examples of these include [meinekleinefarm.com](http://meinekleinefarm.com), an online ethical meat retailer (SE63), and Beyond Coffee (SE71), an urban mushroom farm using waste coffee grounds from local cafes. These new business models contribute to outcomes, including the emergence of a *novel form of capitalism* (Schwab and Malleret, 2020) whereby sustainability considerations are at the fore of business. Policy makers in interview stated that new business proposals would increasingly need to demonstrate a sustainable mission to gain government grants or loans (for example, interview with PM247). These sustainable entrepreneurs strive to *re-shape the infrastructure* within which they directly operate (Chapter 6, section 6.4.3). This is not necessarily a government-directed ecosystem but rather one forming organically via a critical mass of actors and agents moving in the direction of more sustainable lifestyles, as seen by the formation of the CoP.

RQ3 then asks of the wider impact of the outcomes of this CoP. The findings lead us to conclude that:

- *individuals feel more empowered* through their membership of the community and state they appreciate the support of fellow participants
- that solutions are found for challenges facing *enterprises* (even where an enterprise was to be discontinued, the learning from the experience with feedback and support from fellow participants led the sustainable entrepreneur (SE63) to broaden the scope of the venture and remain in business ([www.meinekleinefarm.com](http://www.meinekleinefarm.com)))
- that *civil society is empowered* as community members take their learnings back to their local physical communities and wider networks
- and that SE as a *phenomenon becomes more mainstream* (Dean and McMullen, 2007) and is seen less as peripheral to the economy and society in

general. Members of the CoP were observed to be almost evangelical in their engagement with civil society and personal contacts (my notes). The commitment to sustainability was evident in all facets of their lives from the discussions beyond organised event sessions.

Figure 6.1 shows how a sense of isolation brings individuals interested in SE to the CoP, and they undertake network building within the CoP. Individuals enthusiastically stated how they had benefited from the opportunities to meet other likeminded stakeholders in SE, and thereby gained a sense of *empowerment*. Feedback both formal forms and informal comments, indicated that participants had learned from one another and gained confidence to address SE challenges. *Isolation* may be linked to *a lack of resources*, as one may be said to exacerbate the other. The identified lack of resources brings the community together to *share resources* which in turn brings *more sustainable enterprises* into being. *The reduced role of government* leads to *new business models being evolved* within the community and this in turn may see *civil society strengthened* as sustainable enterprises proliferate to support it.

This *stronger infrastructure for SE* joins with a stronger civil society concerned with more sustainable enterprises and living in general, which may lead to the *phenomenon becoming mainstream* over time, with sustainable business seen as *the norm in a new capitalism* (Schwab and Malleret, 2020). While this may be supposition, it is based in the viewed practices of the CoP, the goals of community members and the frequent discussion of system change or more sustainable living becoming the norm and the need for it to do so, in these times of rapid climate change.

In these ways, the thesis responds to the research questions, answering in turn what are the drivers, practices and outcomes of the SE CoP observed.



## 7.3 Contributions of CoP lens to SE Theory

### 7.3.1 Confirmation of existence of CoP

As stated, through participating in the EUInnovatE project, I gained access to individuals involved in sustainable entrepreneurship, who I observed collectively met the criteria of being a *community*, sharing *practices* and a single *domain*, in order to be to be considered as part of a CoP, according to Wenger and Wenger-Trayner (2015). That is to say, it is a recognisable community with shared practices relating to SE and a domain of SE, as evidenced by the findings. In particular the willingness to share and trust between participants demonstrated a sense of community, the shared practices supported learning through the exchange of information and skills and informal personal exchanges, and the prosocial motivation and presence at events of participants related strongly to a commitment to the domain of SE. Learning was a key motivation for participation and the shared practices underpinned this situated learning. The situated learning that occurs via the sharing of experiences, is invaluable not only to community members but also to other potential and existing sustainable entrepreneurs and associated stakeholders. The CoP concept via this SE context, shows great insights as a collaborative group concept to address meso-level issues in business and society. The focus on community and a commitment to a shared domain, seen in this SE CoP as prosocial motivation, and the willingness to contribute to policy creation delivered contributions to the macro-level, and to policy and practice, as seen in section 7.4.3 and 7.4.4.

This study provides a novel contribution to the CoP literature as members join the CoP out of a clearly stated desire to learn more about the domain rather than solely to solve individual problems collectively. *Situated learning* is discussed in CoP literature as a feature of such communities, whereas for many members of this SE CoP, learning

from one another was the primary motivation maintaining the CoP and motivating subsequent engagement with other members.

### **7.3.2 Situated Learning in the Sustainable Entrepreneurship Community of Practice**

Situated learning in this SE CoP is not just a feature of the CoP, but an underpinning to the four drivers, the four practices and the four outcomes. It is highly valued in its own right, members want to learn more about the activities of other stakeholders committed to the domain of sustainable entrepreneurship. They perceive that by learning from others, they will reduce their sense of *isolation*, reduce their *lack of resources* by learning where and how those resource gaps can be filled, by other stakeholders due to *reduced government*, and their *prosocial motivation*, fuels this commitment to the domain of SE and a desire to learn from others.

In the communities of practice seminal literature (Lave, 1991; Lave and Wenger, 1991) there is great focus on how individuals with lesser knowledge learn in an informal manner (*apprentices*) from more knowledgeable peers (*masters*) within a CoP, which is reminiscent of the first trades guilds in Europe. In this CoP there are no apprentices and masters as such, and information and knowledge are freely exchanged between all members. This echoes the concept of *human capital* which is individually held skills and knowledge, and the exchange of this *human capital* being *social capital* (Davidsson and Honig, 2003). Davidsson and Honig (2003) discuss how *social capital* is more important to the success of entrepreneurs than *human capital* alone. The *means* to exchange knowledge and skills is vital. Participants clearly stated the value of one another to achieve their SE goals, and how they fulfilled lack of resources (Hoogendoorn et al., 2019) such as skills and access to funding, through participating in the CoP. More than this however, this *social capital* (Davidsson and Honig, 2003)

was seen as a supporting each other under the practice of network building and was highly valued (PM277). This generation of social capital by a multistakeholder CoP via situated learning is a novel contribution of this thesis to the SE literature. It is also a novel contribution to the CoP literature which originally discusses *guilds* relating to a single profession and therefore one stakeholder type. The literature discussing CoPs in practice all look at multistakeholder CoPs comprising multiple roles and knowledge perspectives to tackle complex issues whether in industry according to Brown (1998) or in healthcare according to Bentley et al. (2010) and Addicott et al. (2006). This thesis follows the existing literature in that the study is of a multistakeholder CoP and explicitly states the value of this multistakeholder participation. This is a development of note from the seminal works of Lave (1991) and Lave and Wenger (1991).

The individual stakeholders recognise themselves as a part of a sustainability entrepreneurship community, forming relationships and sharing practices, often recounting their previous venture experiences including venture failings (SE63). The existence of a CoP is of interest because it is more descriptive of the informal interactions of members than a network (Wenger et al., 2011). It focuses on the situated learning (Lave, 1991; Lave and Wenger, 1991) of all participants more than the relationships formed alone, although these also reduce feelings of isolation and a sense of lack of support as recognised by Hoogendoorn et al. (2019). It could be said that the CoP solidifies fragmented networks into a supportive infrastructure for SE (Wenger et al., 2011). The mutually beneficial relationships within the community, whether the benefit is tangible or an emotionally positive response to prosocial motivation, are strengthened by the exchange of knowledge and support via the practices of the community. These practices of the community aid the development of a supportive infrastructure for SE, amongst other outcomes.

I build on Lefebvre et al.'s (2015) study which employs participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) and describes a network becoming a CoP. Where that paper differs from this thesis is in the sample being one of all entrepreneurs rather than a mix of heterogenous stakeholders with commitment to (sustainable) entrepreneurship. Lefebvre et al. (2015) states that discussions create situated learning which define their former entrepreneurial network as evolving into a CoP (Lave, 1991). However, this thesis differs significantly in that it does not simply recognise situated learning as a valued feature of a CoP. It demonstrates that CoPs have a valuable role to play resolving specific and contained issues but moreover, CoPs may provide support to the furtherance of the whole field of sustainable entrepreneurship, where social capital has been shown by Davidsson and Honig (2003) to be the key factor for success for entrepreneurs.

It also indicates that policy to foster sustainable entrepreneurship might focus on CoPs as a possible solution, to encourage the practices observed and for the wider creation of social capital via situated learning. This study therefore shows the potential of CoPs and provides a novel contribution to that body of literature.

I proceed in 7.3.3 by describing how the specific challenges of sustainable entrepreneurship can be resolved through this development of social capital via situated learning in a SE CoP.

### **7.3.3 Enhanced Understanding of SE Challenges and Solutions from Findings**

The application of the CoP lens provides us with enhanced understanding of the SE challenges first stated in Table 3-1 (Hoogendoorn et al., 2019) and expanded with relevant findings in Table 6-1. Here I show that the findings, in particular the findings from the shared practices of the CoP (Wenger and Wenger-Trayner, 2015), assist SE

in addressing those challenges. Many of the shared practices directly relate to resolving the issues (Hoogendoorn et al., 2019) that act as drivers for members to join the CoP, via situated learning and knowledge exchange between members (Lave, 1991). In this way, the CoP lens explains how situated learning contributes to the SE field. These findings are included in a developed version of Table 6-1 at Table 7-1.

Table 7-1 Enhanced understanding of SE challenges from SE CoP

(Italics show new information added from findings and providing implications for theory and practice.)

Practices from SE CoP to provide solutions	Specific SE challenge	Description (how practice solves challenge)	Evidence from findings	Key learning implications
<i>Resource sharing: lending expertise, resource seeking, signposting</i>	Access to finance	<i>Members seek practical assistance when needed such as to complete forms. Members respond and provide advice and guidance. Members provide links to sources of funding and information.</i>	<i>Resource sharing: see section 6.4.2.2 for discussion. Multiple examples seen at Table 6-3</i>	<i>Social capital (Honig, 2000) available to members (Hoogendoorn et al., 2019). The value of learning to</i>
	Access to knowledge and skills			
<i>Network building</i>	Geographical isolation	<i>Members feel supported and see value in the CoP as a source of practical and emotional support and advice</i>	<i>e.g. Would have given up without support but empowered to continue venture (SE63)</i>	<i>Sustainable stakeholder following G... Mutual support in furthering... Schaltegger (2003).</i>
	Psychological isolation			
<i>Empowerment of individuals</i>	Confidence in own skills	<i>Members engage in the CoP in order to lobby and co-create policy. Members engage in the CoP to further SE beyond policy</i>	<i>Involvement in EU-InnovatE project events to influence policymaking. Also discussions around getting on addressing grand challenges (UN, SDGs, 2015) without the policymakers</i>	<i>SE actors and beyond (EU-Innova...)</i>
	Self-perception and identity			
<i>Shaping the SE infrastructure</i>	Disjointed policy	<i>Members engage in the CoP in order to lobby and co-create policy. Members engage in the CoP to further SE beyond policy</i>	<i>Involvement in EU-InnovatE project events to influence policymaking. Also discussions around getting on addressing grand challenges (UN, SDGs, 2015) without the policymakers</i>	<i>SE actors and beyond (EU-Innova...)</i>
	Policy constraints			
<i>Niche market access is limited</i>	Reduced role of government increasing burden on civil society	<i>Members develop new business ideas and innovations, sharing ideas freely to support one another</i>	<i>e.g. meinekleinefarm.com, which has relaunched ethical meat products retail site with increased ethical foods range</i> <i>e.g. Beyond Coffee, which has encouraged replication in other cities, and developed to purchase own</i>	<i>SE actors and beyond (Wenger and... policy, and address iss... (Miller et al... SE holds p... challenges (2015) (Dea...)</i>

			<i>coffee shop to be used as a shared space/hub for SE</i>	
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**Table 7-1 Enhanced understanding of SE challenges from SE CoP**

(Italics show new information added from findings and providing implications for theory and practice.)

<b>Practices from SE CoP to provide solutions</b>	<b>Specific SE challenge</b>	<b>Description (how practice solves challenge)</b>	<b>Evidence from findings</b>	<b>Key learnings (theoretical and practical implications)</b>
<i>Resource sharing: lending expertise, resource seeking, signposting</i>	Access to finance	<i>Members seek practical assistance when needed such as to complete forms. Members respond and provide advice and guidance. Members provide links to sources of funding and information.</i>	<i>Resource sharing: see section 6.4.2.2 for discussion. Multiple examples seen at Table 6-3</i>	<i>Social capital/human capital (Davidsson and Honig, 2003) exists as an invaluable resource, available to address specific issues of SE (Hoogendoorn et al., 2019). The value of the SE CoP as a locus of situated learning to develop domain (Lave, 1991)</i>
	Access to knowledge and skills			
<i>Network building</i>	Geographical isolation	<i>Members feel supported and see value in the CoP as a source of practical and emotional support and advice</i>	<i>e.g. Would have given up without support but empowered to continue venture (SE63)</i>	<i>Sustainable entrepreneurs and other stakeholders are not “lone heroes” (C17) following Gartner (1988). Mutual support and community plays vital role in furthering SE at meso-level (Johnson and Schaltegger, 2019; Davidsson and Honig, 2003).</i>
	Psychological isolation			
<i>Empowerment of individuals</i>	Confidence in own skills	<i>Members engage in the CoP in order to lobby and co-create policy beyond policy</i>	<i>Involvement in EU-InnovatE project events to influence policymaking Also discussions around getting on addressing grand challenges (UN, SDGs, 2015) without the policymakers</i>	<i>SE actors act to influence policy beyond CoP and beyond single country to better support SE (EU-InnovatE, 2017)</i>
	Self-perception and identity			
<i>Shaping the SE infrastructure</i>	Disjointed policy	<i>Members engage in the CoP in order to lobby and co-create policy beyond policy</i>	<i>Involvement in EU-InnovatE project events to influence policymaking Also discussions around getting on addressing grand challenges (UN, SDGs, 2015) without the policymakers</i>	<i>SE actors act to influence policy beyond CoP and beyond single country to better support SE (EU-InnovatE, 2017)</i>
	Policy constraints			
	Niche market access is limited			
<i>Evolving business models</i>	Reduced role of government	<i>Members develop new business ideas and innovations, sharing</i>	<i>e.g. meinekleinefarm.com, which has relaunched ethical meat products retail</i>	<i>SE actors also committed to the SE domain (Wenger and Wenger-Trayner, 2015) beyond policy, and keen to build civil society to</i>

	<p>increasing burden on civil society</p>	<p><i>ideas freely to support one another</i></p>	<p><i>site with increased ethical foods range</i>  <i>e.g. Beyond Coffee, which has encouraged replication in other cities, and developed to purchase own coffee shop to be used as a shared space/hub for SE</i></p>	<p><i>address issues without policy interventions (Miller et al., 2012; Tiratelli and Kaye, 2020). SE holds potential for addressing the grand challenges of society and planet (SDGs, UN, 2015) (Dean and McMullen, 2007)</i></p>
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## 7.4 Contributions to the Sustainable Entrepreneurship Theory

In this study, it is particularly key that a CoP lens was used (Lave and Wenger, 1991, Wenger, 2011), thereby exploring the hitherto lesser-studied meso-level (Johnson and Schaltegger, 2019) with a specific focus on community and learning as differentiators to other meso-level theories (Wenger et al., 2011). This focus on the meso-level of a collaborative group concept creates significant contributions to the SE literature which showed very limited extant literature at this level (Table 3-2) and existing literature implies a role for the meso-level to facilitate individuals to influence the macro-level (Johnson and Schaltegger, 2019).

The focus in the extant SE literature (reviewed at Chapter 3), and indeed, the wider entrepreneurship literatures, is on either the functional approach, i.e. the characteristics of successful (sustainable) entrepreneurs, or the processual approach, i.e. how to spot gaps in the market and successfully market a (sustainable) product or service to fulfil that gap. Both these streams of literature operate at the micro-level discussing how individuals can be better (sustainable) entrepreneurs, or at the macro-level of how government could support (sustainable) entrepreneurship better (Johnson and Schaltegger, 2019). I show that *social capital* (Davidsson and Honig, 2003) at the meso-level is a key element to sustainable entrepreneurs resolving issues and enabling them to achieve their goals and have discussed how this a novel contribution to the CoP literature in section 7.3.2.

There is very little in the extant literature that looks to combine these two levels to (sustainable) entrepreneurship at the meso-level in this way beyond Hockerts & Wüstenhagen (2010). Following Johnson and Schaltegger (2019), my study shows that there is value in further exploring academically the vertical space between the micro and macro-levels to influence the macro-level. In addition, it is also valuable to

explore the horizontal-collaborative space between the functional and processual approaches to entrepreneurship at the micro-level. As I develop further in the following subsections, this study shows that it is valuable to explore the meso-level which connects the two approaches and the two levels in order to better understand the phenomenon of SE, with potential contributions also to the wider field of entrepreneurship. I add to the work of Hoogendoorn et al. (2019) who identified lack of resources as a continuing problem despite decades of macro-level efforts to provide better support and entrepreneurship training via multiple policy channels (Audretsch et al., 2007a). The collaborative approach therefore allows individuals to build loose partnerships with others to fulfil skills and resource gaps, while gaining confidence. It also supports an agile entrepreneurship process (Hjorth et al., 2015) to best address sustainability issues in society and thus create successful enterprises. In this way, this thesis also takes forward the work of Johnson and Schaltegger (2019) and indicates impact on the macro-level by addressing these grand social and economic challenges posed by the need for greater sustainability (Brundstad, 1987; IPCC, 2021; UN SDGs 2015).

Another key contribution to the SE literature, is that success was clearly not defined in a single way by the various stakeholders observed in this CoP. In the literature, success of a sustainable enterprise is stated as meeting profit, social and ecological goals. Within this CoP however, it was apparent that in practice SE “success” is a far more nuanced and complex concept, even when the enterprise meets all three goals. Some felt that success was spreading sustainable living solutions by proliferating and sharing good ideas. Others measured success by carbon footprint calculations and how much could be saved via their innovation. Yet others saw financial success and adoption of sustainable business within wider society, that is, becoming the norm

within the current economic system. All these interpretations of SE “success” were accepted and tolerated within the community, just as different personal goals and roles were also accepted. The focus within the community was much more about how individuals could share information and exchange learning to help others achieve their goals (Lave, 1991). In doing so, they were rewarded emotionally for their prosocial behaviour, and/or receive reciprocal emotional and practical support for their own goals. These goals varied from furthering a business enterprise or a local community enterprise, to develop their understanding of the SE field or to develop future business partnerships.

The CoP model therefore shows us how the meso-level of SE can be better understood and how individuals and their enterprises at the micro-level can have a positive impact on civil society (Miller et al., 2012) and the SE infrastructure, and contribute to mainstreaming SE (Dean and McMullen, 2007), at the macro-level. This impact may or may not be deemed radical change (Kuhn, 1962, Schumpeter, 1942); it may simply be incremental societal change as more and more individuals and enterprises choose to focus on sustainable solutions, however, it could also be that this growth in sustainable living and enterprises might cause radical change in the economic system (Schumpeter, 1942), such as for example, the end to reliance on fossil fuels, as others have called for (IPCC, 2021; COP, 2021). It is beyond the scope of this thesis to comment on which is more likely and whether the growth in sustainability will be such as to create radical change sufficient for a paradigm shift (Kuhn, 1962), however it is an area of interest and may be considered by researchers in future (section 7.5.2).

An important point of note is that this multistakeholder SE CoP emerged from a research project (EUInnovate, 2017) convened by one of the stakeholder groups,

policy makers. However the findings and contributions of this study range further than the research objectives of that government-funded project, which sought to produce policy recommendations for SE at the macro level. I therefore proceed to discuss the contributions of this thesis at the micro- and then meso-levels, before the contributions at the macro-level.

#### **7.4.1 Contributions at the Micro-level: to Sustainable Entrepreneurs and Their Enterprises**

Hoogendoorn et al. (2019) explore issues faced by sustainable entrepreneurs and find challenges around access to funding and knowledge, and also a sense of risk or isolation. This is explored further in the SE literature review in Chapter 3 at Table 3-1 in section 3.7. This was echoed by the sustainable entrepreneurs in this SE CoP as seen by the relevant findings summarised in Table 6-1 in Chapter 6 at section 6.2. A major contribution of the SE CoP is that sustainable entrepreneurs resolved these issues through participating in the CoP. They additionally found solutions to specific challenges faced by their enterprises and co-created solutions with others, due to their participation in the CoP as discussed earlier at section 7.3.3.

#### **7.4.2 Contributions at the Meso-level: How CoPs Bring Greater Understanding to Our Knowledge of SE**

The CoP concept (Lave and Wenger, 1991; Wenger and Wenger-Trayner, 2015) helps us to better understand what is happening at the meso-level, where individual sustainable entrepreneurs and allied stakeholders come together to resolve the individual issues seen at the micro-level (Johnson and Schaltegger, 2019). This engagement is collaborative and solution-focused for individual challenges, yet also saw CoP members attend EU-InnovatE project events designed specifically to develop policy (EU-InnovatE, 2017). In this way the CoP at the meso-level can impact SE at

the macro-level. As shown in the literature review detailed in Chapter 3, there has hitherto been a gap at the meso-level of SE (Table 3-2). This gap indicated a difficulty in understanding how the micro and macro-levels interact in the phenomenon of SE. I assert that understanding this gap allows us to better impact the macro-level and thereby prioritise the phenomenon of SE. It also has implications for the wider field of entrepreneurship. This is expanded upon next.

### **7.4.3 Contributions at the Macro-level: Co-creating or Substituting Policy**

As stated, a key contribution is how the CoP can influence the macro-level. To date, macro-level of policy has attempted to influence (sustainable) entrepreneurship with financial and other instruments (Audretsch et al., 2007a), with largely limited proven success. A key aspect of all three schools of economic thought (Austrian, German Chicago schools), however, is that entrepreneurship exists as a number of actors in the market-based economies of capitalism. These entrepreneurs are said to have varying degrees of influence in the allocation of resources for the benefit of society. The Austrian school (Kirzner 1973, 1979) being the strongest advocate of the power of the individual entrepreneur in the free market. In this school, entrepreneurs are operating within a market that is self-regulating, that is, there is little or no scope for monetary or other intervention by government (Friedman, 1970). Following this theory, it may be therefore that there is limited need for financial or other policy incentives to support SE if the market is entirely self-regulating and civil society fulfils any gaps (Tiratelli and Kaye, 2020).

Some policy interventions unfortunately have supported incumbents more than SE alternatives. For example, the UK government announced relatively recently, only on 12 December 2020, a commitment to end taxpayer support for fossil fuel projects

overseas “as soon as possible”. Previously, the UK had provided finance and aided funding for fossil fuel projects overseas as part of trade promotion; between 2016 and 2020, total UK government support in this sector was worth £21 billion (UK Government, Climate Change and Energy, December 2020). The announcement to end support for fossil fuel projects is therefore a welcome one however the previous policy has shown a need for some support for SE to “level up the playing field”. The end for support for fossil fuel projects overseas was to be enacted by the COP26 Conference in November 2021, but does not appear to have been at the time of writing this thesis in February 2022.

Aligned with this topic, is whether SE as a phenomenon might evolve to dominate the field of entrepreneurship. Following Thompson et al., (2011), I argue that it is at present a separate phenomenon worthy of investigation in its own right. This is due to its relatively recent emergence and its distinctive feature of triple goals (Thompson et al., 2011). If entrepreneurship is seen to be the most natural agent for change in the market-based economy to use and distribute limited resources for society’s benefit most effectively (Dean and McMullen, 2007), then the language of SE may become normalised. Where supply is being limited by depleted natural resources and demand is growing due to population growth (IPCC, 2021; COP26, 2021), then following liberal economic theory, an entrepreneurial response may follow in the short-term. This may or may not be a sustainable entrepreneurial response as seen in the “Wild West” of the gold rush or the oil theft in the Niger DELTA (Shepherd et al., 2022). Bricolage and social innovation (Lévi-Strauss, 1962; Stinchfield et al., 2013), however, also emerge in contexts of limited resources, whereby social entrepreneurship can be a direct response. Albert (2019) directly links *frugal innovation*, that is, innovation in response

to depleted resources and suggests its potential to address the dual issues of ecological degradation and limited social access to goods and services.

In the longer term, balancing profit goals with environmental and social goals may emerge as the prevailing model (Dean and McMullen, 2007). Where it does not occur, neoclassical economic theory suggests government interventions via policy (Keynes, 1936). It seems probable that SE over time will become normalised, and mainstreaming the phenomenon is discussed as an outcome of this CoP (see Chapter 6 section 6.4.3.4). This could be seen as the natural evolution of entrepreneurship given its role in the fragile balance of supply and demand of resources, capital and goods (Dean and McMullen, 2007). Indeed, the policymakers (PM247) were of the view that policy instruments for small businesses increasingly demanded a positive environmental and/or social contribution in order to be successful. However, while change and convergence is evident, SE is still sufficiently different, and not yet fully mainstream, that it is worthy of separate academic investigation at the current time (Thompson et al., 2011).

Entrepreneurs are often viewed as business owners who work best alone, who have a clear vision for their business, strong sense of agency and are happy to pursue it without a larger organisation, or network, around them (Friedman, 1970; McClelland, 1987). It is sometimes for this reason that collaborations are claimed to fail, that government interventions are unwelcome and that entrepreneurs lose their strong sense of agency when encouraged to work with others, and compromise on their triple-goal vision for their business (Bacq et al., 2016). This CoP, however, demonstrates how collaboration may emerge organically and could give ideas to governments for better ways to foster SE. This is true at least for those individuals who would welcome collaboration to address issues such as *a lack of resources and/or a sense of isolation*

(see Chapter 6 section 6.4.1, also supported by Hoogendoorn et al., 2019; see Table 7-1). Policy may best support by creating conducive conditions for *social capital* (Davidsson and Honig, 2003) such as business hub spaces, such as discussed and deeply valued by a participant (SE66), rather than more prescriptive interventions such as conditional funding.

#### **7.4.4 Implications for Practice and Policy: Implications for Practice by Stakeholder Group**

It was discussed that this was a CoP comprising multiple stakeholder groups. The findings are of interest because different stakeholders as actors have different needs within the community, contribute to and benefit from their membership in different ways. All communities of practice have both *masters* and *apprentices*, but these roles change over time, as members may also move between *core* and *peripheral* roles too (Lave and Wenger, 1991). Additionally in this instance, the members often hold multiple stakeholder roles and so this increased the movement between *master* and *apprentice* roles within the community depending on which stakeholder perspective they were responding from and therefore had differing levels of expertise and knowledge in differing stakeholder roles.

This very heterogeneity of the types of stakeholders involved in this CoP adds value in *polyphony* (Bakhtin, 1984), multiple voices all contributing a broader range of experiences, expert knowledge and genuine interest in the diverse needs within the community. The stakeholders held one or more of the following roles: sustainability entrepreneur, businessperson, academic, citizen/voter, NGO member, thought-leader, and public sector worker/policymaker. There are implications for each of these groups specifically which I will address in turn:



**Sustainability entrepreneurs** clearly were looking for business solutions, whether to access funding or information to help them to navigate the local and national business environments better. The contribution for this group is that a CoP provides not only practical advice and access to funding but also emotional support and the resilience to keep going against adversity. They gained an acceptance of failure as a learning tool and found synergistic capability-building via learning from the experiences of other sustainability entrepreneurs and discussing possible collaborations with the variety of stakeholders in the community. It is vital therefore that sustainability entrepreneurs are encouraged to form contacts, develop a sense of community amongst these. Further, there are clearly implications for policy in terms of support for local CoP building, and physical hubs including shared working space, or hubs fostered by corporates. The impact may not always be demonstrated by successful scaling of enterprises but other success measures might be additionally appropriate such as longevity of enterprise or enterprise replication or new enterprise idea generation.

**Businesspeople** were keen to help smaller businesses either altruistically, due to their prosocial motivation and commitment to sustainability, or due to viewing such enterprises as sources of innovative ideas for growth, which are often restricted in larger, less agile corporations. In return for funding and support to scale up an enterprise and proliferate sustainable innovations, incumbent businesses may respond better and more quickly to consumer demands for sustainable products. As consumers become increasingly aware of sustainability issues, so too does consumer demand for more sustainable products. These products may be deemed sustainable in terms of resources used, how they are acquired, the impact on local people and the natural environment. Production methods and impact on employees in the manufacturing and other processes are also considered. Consumers also have

transportation considerations such as freight method and distance travelled. Consumers also raise packaging concerns to reduce production and usage of plastic and other non-biodegradable matter.

While these consumer demands are not universally held, they are significant and therefore regulation often follows so businesses do well to pre-emptively respond favourably to them. One way of doing so, is to reach out to existing sustainability entrepreneurs to form partnerships, or simply to learn from them. Communication also helps larger corporates to remain abreast of current developments and innovations at the cutting edge of sustainability. Corporates in return have financial and other resources to offer, including research and development facilities based on mutual trust and knowledge exchange such as the Unilever Foundry, which was mentioned in the workshop discussions (A13). Such collaborations therefore have the potential to be synergistic rather than exploitative and the CoP provided an opportunity to discuss these types of corporate collaborations with entrepreneurs such as BT's Infinity Labs programme (BL82).

**Academics**, especially in the social sciences field of business, seek to understand the practitioner application of the theoretical concepts and ideas they develop. If they work in the field of business and management, they also wish to develop a good relationship with industry, both gathering data regularly from their networks and disseminating their findings beyond a purely academic, theoretical paradigm. This thesis provides a study of the usefulness of communities of practice to both the literature and practitioner field of SE. It develops a theoretical concept at Figure 6-1 and uses theory to further knowledge of SE. It also contributes to the body of literature at the meso-level of SE and demonstrates the connections between the micro, meso and macro-levels in the field. In a similar vein, it develops knowledge and understanding of the potential

application of the communities of practice theory. This is particularly of interest as the communities of practice lens has not been previously used with a longitudinal, fully qualitative study in the field of SE.

Beyond this, the iterative nature of reflecting on data collected in previous episodes to test assumptions and develop next steps in subsequent episodes within a multistage project over several years, and developing longstanding relationships within a community, has useful learnings for future academic research projects and which could be explored further and applied in future research projects where appropriate. The online conference with written comments by participants in multiple forums synchronously is an innovative means of data gathering digitally which may also contribute to theoretical discussions of different qualitative data collection methods.

**Citizens and NGO members** generally joined the community in order to share what they could, knowledge and timewise, due to strong prosocial motivation. Their commitment to sustainability means that while they do not necessarily have relevant business knowledge or finance to offer sustainable entrepreneurs, they do have strong networks within sustainability and broader knowledge/access to business leaders and funders which are resources in themselves. They are also often closely connected to consumer movements for sustainable goods and innovations, and so contribute greatly to the community via soft knowledge exchanged in the practices noted in this community, and the informal situated learning they can foster as often *core* members of the CoP. They can provide an informal sounding board for entrepreneur members to test enterprise ideas and sustainable innovations.

They also encompass a broad variety of other stakeholder roles, that is to say, when research participants were given the opportunity to self-declare which stakeholder

role/s best represented them, they often picked Citizen/Voter above others, even when they were also sustainable entrepreneurs, business leaders or academics. This is interesting to note as it indicates that this was an important identity for many participants and one which may have brought them to the CoP and one which could be appealed to and cultivated when bringing together individuals in a SE CoP in future, and also when considering how to construct research projects in this field in the future. Clearly the sense of community and identity as a citizen is paramount for many individuals committed to SE.

**Thought leaders** have a similar role to academics, yet they are even more closely allied to the practitioner world of business and often are linked also to policymakers and other government representatives, such as public sector workers. Their role requires them to be look at problems laterally, to make connections between people and ideas to solve problems and recommend practical solutions. As such, membership of a multi-stakeholder CoP gives them access to many of the different stakeholders they need to collaborate positively with and facilitate situated learning in order to reach their own desired goals. While additional goals, may differ, they all share the goal of furthering SE. This CoP suits those thought leaders who are committed to this goal and believe that the best route to that sustainability is via small business innovation. Some see support to scale via collaborations with larger corporates as important, while allowing the market to regenerate through the liberal economics form of capital renewal, i.e. a new capitalism (Kuhn, 1962). A CoP such as this one benefited from their participation in terms of research and practitioner knowledge that they could bring, equally participating brought them closer to those affected by policy and helped them refine recommendations to policymakers. Membership of relevant communities

of practice is therefore synergistic and of great benefit to thought leaders in terms of contacts made for future work.

**Public sector worker/Policymakers** were a key stakeholder in the WP6 research conducted, as policy ideas for more sustainable innovations were the reason for bringing together the stakeholders for the data collection episodes in WP6. While the government-funded project convened research events, the by-product of these events was the emergence of a self-forming CoP. This CoP provided additional insights to the stated research project. This study found that some members of the SE CoP wished not to contribute to the SE policy aims of the government-funded research project. A key finding from this study and therefore a contribution of this thesis was that some members of the CoP wanted a more bottom-up, organic means of driving change in society, in the vein of liberal economics which sees the entrepreneur as responding to the market without governmental interference or policy. Other community members did however see a role for policy in facilitating access to finance, not necessarily as the direct provider but via support for “green” banks and similar institutions, and facilitating hubs and networks for the community to meet on a regular basis.

Others saw a role for universal income (SE187 in online conference; also mentioned by others in workshop discussions, my notes) to provide a financial “cushion” to entrepreneurs while they developed and took their innovation to market. There was therefore wide disparity in the views expressed within the community from laissez faire government to supportive government, and indeed many members converged in their view that current “green” policy instruments such as grants for insulation, often skewed the market unfavourably.

Policy recommendations were presented to EU policymakers as a result of the consortium research project, thereby demonstrating that the research did gather useful data for policy decision-making with a range of actionable suggestions. Such communities could be useful source for citizen research to generate policy ideas, and test and refine them.

There could also be a role for policy redefining success measures for policies beyond enterprises scaled and profitability, and considering success measures such as:

- sustainable enterprise ideas being shared and proliferated
- community development which may overcome other societal issues, especially when the community is focused on sustainability and therefore additionally contributes to achieving SDGs (SDGs, UN, 2015)
- human productivity which again may contribute to overcome social issues via mental wellness and other such gains. This may warrant further research.

## **7.5 Concluding Comments**

This section acknowledges the limitations to this research exist, sets out future directions for research to build on this thesis and draws a number of final conclusions from the study.

### **7.5.1 Limitations of the study**

In terms of limitations, firstly, I acknowledge limitations from my personal perspective. I stated my personal bias in the introduction: I am personally committed to improving social and societal issues while limiting degradation of natural resources and the impacts of climate change (IPCC, 2021). I also hold that entrepreneurship has potential to ameliorate some of these situations by developing innovative solutions to

sustainability problems. I value collaboration as a possible means to overcome barriers, following Schaltegger et al. (2018). I am therefore conscious of how my personal values may have directed this study, yet I have stated my motivating objective from the outset. I have endeavoured to remain objective at each stage of gathering data, reading the literature, analysing the data and presenting the findings, not least by using accepted methodologies and theories throughout such as participant observation (Spradley, 1980; DeWalt and DeWalt, 2011), thematic analysis (Boyatzis, 1998) and first level ordering (Gioia et al., 2012).

Secondly, I acknowledge that the CoP lens is one of many that could have been used. Based on my reading of meso-level collaborative groups and discussed in Chapter 4, I chose the CoP lens above alternative options, but a number of studies have been critical of the CoP idea, notably Roberts (2006). Roberts (2006) draws attention to knowledge as a source of *power* which may limit willingness for share information and ultimately undermine the situated learning that underpins CoPs. *Trust* is also a prerequisite for a successful CoP yet is difficult to foster and maintain. Roberts (2006) also discusses *predispositions* that may affect the effectiveness of a CoP, given that CoPs, including this SE CoP, strive to bring about change. However, many people are inherently predisposed to resist change. They will therefore be less supportive and unwilling to participate fully. With regard to these points, the current study found that members of the SE CoP:

- willingly share knowledge proactively
- displayed only limited issues with trust, but these were directed at policy makers
- joined the CoP voluntarily and may differ in predispositions as to whether change should be radical or incremental, but they are all in favour of change towards greater sustainability.

The limitations of CoPs therefore are acknowledged but not found to be significant issue in this study. I proceed with further potential limitations as to how the study was conducted. An acknowledged potential limitation of this study is that it seeks to explore and understand the value of CoP lens for SE but does not seek to empirically prove that further communities would operate in the same way and have the same outcomes.

I acknowledge that the data was gathered from an array of individuals, not only with their own work experiences and knowledge, but also with their individual personalities, values, interests and lifestyles. It could be claimed that this same group at a different age or simply in a different time frame with the discussions framed by different external contexts, might operate very differently within the CoP. I argue however, that my findings provide interesting insights and are developed from a robust research study comprising data from across a number of different data collection episodes with a different mix of participants at each. Further research would be needed to demonstrate empirically that the drivers, practices and outcomes are indeed applicable. The conceptual model presented does provide insight into how a SE CoP functions and provides insights to add to knowledge of SE.

The reflexivity (Umpleby, 2010; Alvesson and Skoldberg, 2018) approach adopted attempts to strengthen the findings from data collected using the primary research method of participant observation (Spradley, 1980; DeWalt and DeWalt, 2011). Yet it must be acknowledged that bias will still remain:

- in the data provided by members and their recounting of stories,
- in the data I collected and how I noted down some of the discussions,
- and in how I interpreted these notes during the analysis stage, despite my endeavours to limit bias at each stage.



These biases cannot be removed without losing the richness of the data and the findings presented but should still be acknowledged as a possible limitation.

The scope of this research is limited then to an exploration of this CoP for SE and the potential outcomes for multiple communities of practice, or a constellation of communities of practice (Wenger and Wenger-Trayner, 2015), at multiple levels derived from its practices. This possibility of being able to make credible generalisations from this specific CoP exists and is valuable, however such generalisations could be strengthened by further research into other communities of practice forming around the phenomenon of SE, in both similar and different contexts (see section 7.5.2 next).

The method employed could be seen as a limitation of the research, there is no way of knowing whether the data collection episodes held comprised a representative sample of the CoP due to the convenience sampling employed and self-selecting means by which participants were recruited.

The methods of face-to-face workshops and conferences could be seen to be biased against those who were unable to attend on those specified dates, or could not travel to the locations, whereas the online conference could be seen to overcome travel issues but conversely disadvantaged those not used to online formats, and who struggled to type quickly or keep up with the pace of the written discussions in different threads. These are all limitations acknowledged in the methodology (Chapter 5), however the mix of different data collection methods, with travel expenses reimbursed, and open to all via self-selection following public communications, allowed for the greatest number of participants.

Another possible limitation of the research could be that the whole project was devised to collect data for another purpose, that is to form policy recommendations. The community was however visible through the interactions of the members and their ongoing engagement beyond the project. While WP6 and my study used much of the same data, mine was supplemented by participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) and therefore significant additional notes as part of the dataset.

### **7.5.2 Next Research Directions**

I proceed with some suggestions of future research directions to address these limitations and to extend our knowledge of the SE field, CoP field and associated fields. I explore these next in turn.

A further research study could gather data from stakeholders gathered by similar means or by alternative means, to discover whether the sample used in this research study is representative of SE communities of practice forming in different contexts. This would help to identify commonalities and differences in drivers, practices and outcomes and to see if these indeed are the main categories of note in other research studies also investigating SE as a CoP, using research methods to collect qualitative data.

This would help us understand where such differences are attributable to the different memberships and their individual drivers, the different combinations of members in terms of stakeholder role but also personality and values differences. There may also be differences driven by contextual factors such as economic and social factors, or by time, location and other local context factors. It may be the case, for example, that this very European CoP is shaped by Global North culture, a context of broadly stable

economies and less poverty in society. It might be interesting to compare with the Indian women's self-help groups of small enterprises to learn from the differences. Might a multi-stakeholder CoP have even more successful outcomes for individuals and enterprises where the drivers are even stronger and include an escape from poverty and better life outcomes for your children?

Linked to this then is the issue raised in the introduction of racial inequality in the developed world where people of colour are minority groups. Racial inequality was not addressed at all in this SE CoP and yet the concept of supporting black-owned businesses and enterprises to support economic development of this sometimes marginalised group is not a new one. Where sections of society have been excluded from economic gains, much like the groups in poverty in developing countries such as India mentioned above, entrepreneurship often thrives, addressing local environmental issues as well as business and social goals. It would be of interest therefore to investigate whether communities of practice for black owned enterprises and their allied stakeholders exist. It would also be of interest to see if CoPs exist for other marginalised groups in Global North society. Additionally, it could be explored whether sustainability is a key feature for enterprises in such entrepreneurship communities of practice, and how they deliver lasting outcomes. Any differences between such communities of practice would add to the body of knowledge regarding SE.

Further research could be undertaken to quantify and measure the impact of such a CoP on the existing economy and society, via a longitudinal survey or other similar means. That is, to what extent do the outcomes of such communities deliver real and lasting change for individual members, their enterprises, the community itself and then via mainstreaming SE, to the economy and to society at large. Future research should

additionally examine how the influence of the outcomes of SE communities of practice on social and economic systems can then be maximised to further facilitate the transition to sustainable living. The practices may not be unique to SE and may be more broadly applicable to individuals committed to sustainable living. This may open up further avenues for academic exploration with different contexts both to those interested in the communities of practice literature and those interested in sustainability literature. Associated impacts could be explored further by researchers interested in how society might be better formed for its members and for the collective good (see the SPREAD scenarios in Chapter 2, section 2.2). Equally researchers could explore how governments should possibly respond proactively to such changes where they evolve independent of government interventions. Further research should consider the extent to which policy can be co-created with community members to support SE. The EU-InnovatE project (Chapter 2, section 2.3) was an example of this (EU-InnovatE, 2017) and is discussed further in Watson et al. (2022).

Some members SE will emerge organically to fulfil unexploited opportunities in the market and thereby renew capital in the Schumpeterian form of creative destruction (Schumpeter, 1942). In the view of Kuhn (1962), a new paradigm might occur as knowledge is reinvented anew through research. Researchers could explore how SE CoPs might be encouraged in society and how by virtue of multiple numbers could create a paradigm shift (Kuhn, 1962). In addition, paradigm shifts (Kuhn, 1962) of this sort may be of interest to those researching in other associated fields, such as economics with a focus on the possibility of a new capitalism, sustainability and how to encourage more sustainable lifestyles in society. This might build on the findings of some of the interviews, whereby policy makers pointed out that to gain access to funds and other supportive policy instruments, enterprises increasingly need to have a

sustainability focus. Another area of interest could be the role of communities as opposed to networks or ecosystems, and how existing networks or ecosystems can be encouraged to form communities of practice for greater impact.

As was briefly mentioned in the findings, it may be of interest to explore further to what extent these findings can relate more broadly to sustainability within the corporate sector. Many corporates now have a dedicated role or roles to sustainability. Within other departments such as research and development and more widely, there may be *sustainability intrapreneurs*, advocating and leading changes to develop more sustainable products, processes and business models. It may be of interest to explore to what extent these employees, form or could form, a sustainability intrapreneurship CoP, and how this would be similar and differ from the SE CoP here observed.

These are some examples of potential avenues for further research to build upon the knowledge derived from this study and presented in this thesis. Nevertheless, in addition to these opportunities for additional research, this thesis seeks to make useful contributions in its own right, both to the CoP literature which to date has focused largely on corporations using the model to solve specific technological issues (Brown, 1998) or within the public sector, predominantly in healthcare (Addicott et al., 2006; Bentley et al., 2010), to drive improvements for patients around a specific illness. This thesis is novel in its application of the CoP concept to SE, and the broad set of issues such a community is addressing, such as social issues, environmental issues, climate change, calls for a new capitalism and so on. I presented a draft paper of my research to the British Academy of Management 2020. I would look to submit a paper to an entrepreneurship journal such as the Journal of Business Venturing with a special call for SE, or to journal focused on sustainability journal.

### 7.5.3 Conclusions

To conclude, this thesis sets out how the economic, social and environmental grand challenges (SDGs, UN, 2015) facing the world today might be addressed via collaborative working at the meso-level, namely a CoP. The sustainable innovation and entrepreneurship research project in which I participated, is an example of one such CoP, and when viewed with consideration of the SE and communities of practice literatures, and in response to my research questions, provides insights to address these grand challenges (SDGs, UN, 2015).

The drivers that brought multiple stakeholders to the community are supported by the literature (Hoogendoorn et al., 2019), at least in developed countries. The drivers are strong for all these different groups, and yet prosocial motivation is possibly the commonality between them all. In addition, while the practices benefit the different stakeholders in different ways, they are likely to remain within the CoP for as long as the community remains active and it is likely to evolve over time according to the changing membership and needs of that changing membership. The shared practices therefore support learning and positive outcomes at the macro-level for greater sustainability in the market, economy and society, which links to the key driver that unites all the stakeholders of prosocial motivation, both helping others and a strong commitment to sustainability. The findings therefore make the following contributions to the literature on SE.

First, I find that members of a SE CoP are re-shaping the SE infrastructure, advocating for SE and influencing supportive policy. This supports the assertion of Gibbs (2009) that the greatest impact of the sustainable entrepreneur could be as a collective force for change. As such, although the SE community is informal and evolving, it exerts impact on society, both via its members in their daily enterprise activities but also

helping to mainstream SE. This is particularly interesting given the gap in the literature at the meso-level as it indicates the potential for this level to be highly influential. This is particularly the case at the macro-level of society and economics. Change is hard to effect at the macro-level, and individual entrepreneurs at the micro-level may lack the influence to successfully impact the macro-level directly. In doing so, the meso-level of a CoP draws together the functional and processual approaches of economic thought with regard to entrepreneurs and provides a focus for sustainable entrepreneurs as leaders of a new capitalism. COP26 (2021) provides a renewed focus for how to address these grand challenges (SDGs, UN, 2015).

Second, the community comprises of a variety of individuals with multiple stakeholder roles, who share a commitment to SE and are keen to gain from and/or provide support to fellow members as required. As such, deeper situated learning can take place between interchangeable “masters” (teachers) and “apprentices” (students) with such varied knowledge and experience (Lave, 1991; Lave and Wenger, 1991). Individuals from varied backgrounds join and are welcomed into the community, such as finance providers, NGOs, academics, collaborators from big business, public sector employees and so on, all with individual goals but all with a shared interest in the furtherance of SE (see Chapter 5 section 5.6.1 and Table 5-4 for more information about the participants and their roles). Members may hold multiple roles, for example, a businessperson may also be involved in a community sustainability project in their spare time. The very varied roles held by heterogeneous members provides a rich collective source of knowledge and learning (Lave and Wenger, 1991) via *polyphony* (Bakhtin, 1984) and can reduce both the perceived lack of access to institutional resources (Hoogendoorn et al., 2019) and further the phenomenon of SE as members are committed to the *domain* (Wenger and Wenger-Trayner, 2015), as well as their

own personal needs or those of their enterprise. There is a noticeable willingness to share information which supports learning further. Sustainability is a core value for most and they are committed to the *domain* rather than just holding an interest (see Chapter 6 section 6.4.1.4 for further discussion of this finding and Table 6-2 Findings: Drivers and Illustrative Quotations Table 6-2 for evidence from the data).

Third, the SE CoP observed may have a European focus but has implications for broader practice: sustainable enterprises may struggle for the reasons identified as one or more of the drivers for the CoP are universal issues in most countries to some extent, and the practices conducted by this CoP may assist other sustainable enterprises globally to achieve similar outcomes. There is already a move to broaden the SE literature from a Global North focus to explore SE similarities and share learnings from contexts from the Global South (Vadde and Ratnam, 2014; Nayyar, 2017).

Finally, there are discussions on the “new capitalism” and potential developments in society in response to the movements for change identified previously (Schwab and Malleret, 2020). One such suggestion has been that society will comprise of less formally and contractually employed individuals working for larger companies and more individuals trading on their assets and skills on a self-employed and entrepreneurial basis in the Austrian school of economic thought (Kirzner, 1973, 1979). As a result, these individuals, it has been suggested by Grant (2020), might form guilds for support and mutual benefit. This concept of guilds, with masters and apprentices, links directly to concept of a CoP, as discussed by Lave and Wenger (1991, 1998). The protests at COP26 (COP26, 2021) against limited political activity on the global issue of climate change (IPCC, 2021), and the growing sustainability demands of consumers and changing consumer behaviour (Deloitte, 2021), all



demonstrate that there is support within society for change to better support the environment. CoPs may provide a means of achieving this flexibly via situated learning and knowledge exchange (Lave and Wenger, 1991) in the new capitalism of less formal employment (Schwab and Malleret, 2020).

Nothing in the findings relates directly to racial equality, which has also been a societal issue raised globally in recent years and particularly since June 2020 (BLM, 2020). However, the social goals of sustainability may encounter issues if not approached with inclusivity in mind. The CoP with its clear focus on collaborative working of different stakeholders, learning together and from one another, holds potential to support these social goals as well environmental ones posed by climate change (IPCC, 2021). It holds potential to effect a positive system change to the economy and society (Schwab and Malleret, 2020). It also helps identify and create opportunities in the market for entrepreneurship and funding networks to address social inequalities in the vein of *bricolage* (Albert, 2019; Stinchfield et al., 2013).

In addition, my findings contribute to the communities of practice literature. This CoP resembles communities of practice in other fields (see Chapter 4 section 4.3) in that: participants welcome membership as a source of mutual support, signposting one another towards helpful information and funding sources. However, I demonstrate that a SE CoP differs from business communities of practice in a number of ways: first, there are few, if any, concerns about intellectual property protection or sharing market intelligence. Individuals see SE and its propagation as the goal, as opposed to their individual enterprises being in competition. Members engage with other members as a community and as individuals, forming overlapping, interpersonal relationships. These bonds create a strong interconnected community which is valued by members in its own right.

Second, participant observation (Spradley, 1980; DeWalt and DeWalt, 2011) has not been commonly used to observe a CoP and I see this as a novel approach, providing a new means of deepening and enriching insight into such communities. In conjunction with reflexivity (Umpleby, 2010; Alvesson and Skoldberg, 2018), considering notes for bias, allows for greater depth of analysis and a recognition of the richness of the data without losing any of the potential insights. This thesis thereby adds to the communities of practice literature, providing a novel means of researching this field, in addition to a novel subject matter not addressed previously in the literature.

The findings enumerated in this thesis therefore will be of interest to both academics and multiple stakeholder group of practitioners in the field of SE, as described above at 7.4.4. To conclude, this thesis adds to knowledge of the phenomenon of SE and paves the way for further research in this important field, which holds great promise for new form of capitalism for more sustainable economies and societies, with potential for societal improvements and greater equality in society for the benefit of people and the planet (Kuhn, 1995).

## REFERENCES

- Abrahamsson, A. (2006) *Sustainopreneurship – Business with a Cause - Starting Points and Critical Reflections*, Swedish Society of Sustainable Development, Uppsala, 21-30
- Addicott, R., McGivern, G. and Ferlie, E. (2006) *Networks, Organisational Learning and Knowledge Management: NHS Cancer Networks*, Public Money and Management, 26(2), 87-94
- Albert, M. (2019) “Sustainable frugal innovation - The connection between frugal innovation and sustainability”, *Journal of Cleaner Production*, 237, 117747, ISSN 0959-6526, <https://doi.org/10.1016/j.jclepro.2019.117747>.
- Alvarez, S.A. and Barney, J.B. (2005) *How do Entrepreneurs Organize Firms Under Conditions of Uncertainty?* Journal of Management, 31(5), 776–793
- Alvesson, M. and Skoldberg, K. (2018) 3<sup>rd</sup> ed, *Reflexive Methodology: New Vistas for Qualitative Research*, Sage
- Ardichvili, A., Page, V. and Wentling, T. (2003) *Motivation and Barriers to Participation in Virtual Knowledge-sharing Communities of Practice*, Journal of Knowledge Management, 7(1), 64-77
- Ardichvili, A. (2008) *Learning and Knowledge Sharing in Virtual Communities of Practice: Motivators, Barriers and Enablers*, Advances in Developing Human Resources, 10 (4), 541-554
- Aristotle, and Ross, W.D. (1981), *Aristotle’s Metaphysics (Book IV)*, Oxford, Clarendon Press
- Audretsch, D., Grilo, I. and Thurik, R. (2007a) *Explaining Entrepreneurship and the Role of Policy: A Framework*, Handbook of Research on Entrepreneurship Policy, Ch.1, Edward Elgar Publishing Ltd, Cheltenham UK, Northampton MA, USA
- Audretsch, D. and Keilbach, M. (2007b) *The Theory of Knowledge Spillover Entrepreneurship*, Journal of Management Studies, 44(7), 1242-1254

- Bacq, S., Hartog, C. and Hoogendoorn, B. (2016) *Beyond the Moral Portrayal of Social Entrepreneurs: An Empirical Approach to Who They Are and What Drives Them*, Journal of Business Ethics, 133(4), 703-718
- Bailey, C.A. (2006) 3<sup>rd</sup> ed., *Introduction to Field Research*, Chapter 1, Sage.
- Bakhtin, M. (1984) *Problems of Dostoevsky's Poetics*, Edited and translated C. Emerson, Minneapolis: University of Minnesota Press
- Bansal, P. (2019) *Sustainable development in an age of disruption*, Academy of Management Discoveries, 5, 8-12
- Barbier, E.B. (2020) *Greening in the Post-pandemic Recovering in the G20*, Environmental and Resource Economics, 76, 685-703
- Bate, S.P. and Robert, G. (2002) *Knowledge Management and Communities of Practice in the Private Sector: Lessons for Modernizing the National Health Service in England and Wales*, Public Administration, 80 (4), 643-663
- Battilana, J. and Dorado, S. (2010), *Building Sustainable Hybrid Organisations: The Case of Commercial Micro-finance Organisations*, Academy of Management Journal, 53, 1419-1440
- Battilana and Lee, M. (2014) *Advancing Research on Hybrid Organising: Insights from the Study of Social Enterprises*, The Academy of Management Annals, 8 (1), 397-441
- Belz, F-M. and Binder, J. (2017) *Sustainable Entrepreneurship: A Convergent Process Model*, Business Strategy and the Environment, 26(1), 1-17
- Bentley, C., Browman, G.P. and Poole, B. (2010) *Conceptual and Practical Challenges for Implementing the Communities of Practice Model on a National Scale: A Canadian Cancer Control Initiative*, BMC Health Services Research, 10 (2) [Conceptual and practical challenges for implementing the communities of practice model on a national scale - a Canadian cancer control initiative | BMC Health Services Research | Full Text \(biomedcentral.com\)](#)
- Birley, S. (1985) *The Role of Networks in the Entrepreneurial Process*, Journal of Business Venturing, 2(2), 155-165

- Bjerke, B. and Karlsson, M. (2013), *To Act as If and to Make a Difference*, Edward Elgar Publishing Ltd, Cheltenham UK, Northampton MA, USA.
- Blaikie, N. (2007) *Approaches to Social Enquiry* (2<sup>nd</sup> Ed.), Polity Press, Cambridge, UK
- Blundel, R., Lockett, N. and Wang, C. (2017), 2<sup>nd</sup> ed, *Exploring Entrepreneurship*, London: Sage
- Boje, D.M. (2001) *Narrative Methods for Organisational and Communication Research*, Sage Publication Limited.
- Boyatzis, R. (1998) *Transforming qualitative information: Thematic analysis and code development*, Thousand Oaks, CA: Sage
- Brown, J.S. (1998) *Internet Technology in Support of the Concept of "Communities-of-Practice": The Case of Xerox*, Accounting, Management and Information Technologies, 8(4), 227-236
- Brundtland Commission (1987), *Our Common Future*, World Commission on the Environment and Development (WCED), United Nations, Oxford University Press
- Bruton, G.D., Ahlstrom, D., and Li, H.-L. (2010) *Institutional Theory and Entrepreneurship: Where Are We Now and Where Do We Need to Move in the Future?* Entrepreneurship Theory and Practice, 34 (3), 421–440
- BT Innovation (2021) *How BT Innovates* [Accessed January 2022 [How BT innovates - Innovation | BT Plc](#)]
- Bulloch, G. and Bonnici, F. (2021) *Why Change-making Intrapreneurs are a key source of renewable energy for businesses*, World Economic Forum (10 March 2021) [Accessed 30 January 2022]
- Burkhart, T., Krumeich, J., Werth, D. and Loos, P. (2011) *Analyzing the Business Model Concept — A Comprehensive Classification of Literature*, ICIS 2011 Proceedings, 12
- Busfield, J. (2012) *Challenging claims that mental illness has been increasing and mental well-being declining*, Social Science & Medicine, 75 (3), 581-588

- Cambridge English Dictionary (2020), *BAME: Black, Asian, Minority Ethnic*, <https://dictionary.cambridge.org/dictionary/english/bame>
- Campos, D.G. (2011) *On the Distinction between Peirce's Abduction and Lipton's Inference to the Best Explanation*, Synthese, 180, 419-442
- Carmichael, S. and Hamilton, C.V. (1967), *Black Power: The Politics of Liberation*, A Division of Random House Inc.
- Charities Aid Foundation (2020) *Mutual Admiration: Charity, Philanthropy & Mutual Aid Post-COVID*, R. Davies [accessed 2.6.2021 [Charity, Philanthropy and Mutual Aid Post-COVID](#)| [CAF Giving Thought \(cafonline.org\)](#)]
- Charmaz, K. (2013) ,2<sup>nd</sup> ed., *Constructing Grounded Theory*, Sage
- Chermack, T.J., Lynham, S.A. and Ruona, W.E.A. (2001) *A Review of Scenario Planning Literature*, Futures Research Quarterly, 7(2), 7-32
- Chick, A. (2009) *Green Entrepreneurship: A Sustainable Development Challenge*, in Mellor, R. (ed) *Entrepreneurship for Everyone: A Student Textbook*, London: Sage, 139-150
- Christensen, C.M. (2006) The ongoing process of building a theory of disruption, *Journal of Production and Innovation Management*, 23 (1), 39-55
- Chronicle of Philanthropy (2020) *The Current Economic Crisis Is an Opportunity to Reset Philanthropic Priorities*, L. Bernholz [accessed 2.6.2021 [www.philanthropy.com](http://www.philanthropy.com)]
- Cohen, B. and Winn, M.I. (2007) *Market Imperfections, Opportunities and Sustainable Entrepreneurship*, Journal of Business Venturing, 22, 29-49
- Cohen, B., Smith, B, and Mitchell, R. (2008) *Towards a Sustainable Conceptualization of Dependent Variables in Entrepreneurship Research*, Business Strategy and the Environment, 17: 2, 107-119
- Comte, A. (1855) *The Positive Philosophy of Auguste Comte*, translated and condensed by H. Martineau, 1855, from *The Course of Positive Philosophy (1830-1842)*, six volumes, Paris

- Cooney, R. (2020) *What does Mutual Aid mean for the Charity Sector?* Third Sector, 15 May 2020
- COP26 (2021) *United Nations Climate Change Conference*, November 2021, Glasgow, [www.ukcop26.org](http://www.ukcop26.org) [Accessed Feb 2022]
- Cox, A. (2005) *What are Communities of Practice? A Comparative Review of Four Seminal Works*, *Journal of Information Science*, 527-540
- Croce, F. (2020) 'Indigenous women entrepreneurship: analysis of a promising research theme at the intersection of indigenous entrepreneurship and women entrepreneurship', *Ethnic and Racial Studies*, 43(6), 1013–1031
- Cunliffe, A. L. (2011). *Crafting qualitative research: Morgan and Smircich 30 years on*, *Organizational Research Methods*, 14, 647-673
- Dacin, P. A., Dacin, M. T. & Matear, M. (2010) *Social Entrepreneurship: Why We Don't Need a New Theory and How We Move Forward from Here*, *Academy of Management Perspectives*, 24, 37-57
- Davidsson, P. and Honig, B. (2003) The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331
- Dean, T.J. and McMullen, J.S. (2007) *Towards a Theory Sustainable Entrepreneurship: Reducing Environmental Degradation through Entrepreneurial Action*, *Journal of Business Venturing*, 22, 50-76
- Deloitte (2021) *Sustainability and Consumer Behaviour 2021* [Accessed 26.2.2022 [Sustainability & Consumer Behaviour 2021 | Deloitte UK](https://www.deloitte.com/uk/en/issues/sustainability/sustainability-and-consumer-behaviour-2021.html)]
- Demil, B. (2020) *Reintroducing Public Actors in Entrepreneurial Dynamics: A Co-evolutionary Approach to Categorisation*, *Strategic Entrepreneurship Journal*, 14(1), 43-65
- Department for Digital, Culture, Media and Sport, UK Government (January 2020) *Loneliness Annual Report January 2020*, Policy Paper [Accessed 29.5.2021 [Loneliness Annual Report January 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/854212/loneliness-annual-report-january-2020.pdf)]

Department for Transport, UK Government (March 2021) *Plug-in car, van and truck grant to be targeted at more affordable models to allow more people to make the switch* – News story, published 18 March 2021 [accessed 26.2.2022 [Plug-in car, van and truck grant to be targeted at more affordable models to allow more people to make the switch - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/plug-in-car-van-and-truck-grant-to-be-targeted-at-more-affordable-models-to-allow-more-people-to-make-the-switch)]

Descartes, R. (1641) *Meditations on First Philosophy, in Which is Proved the Existence of God and the Immortality of the Soul*, in Latin, translated by J. Veitch, 1901

DeWalt, K.M. and DeWalt, B.R. (2011) *Participant Observation: A Guide for Fieldworkers*, 2<sup>nd</sup> edition, AltaMira Press

Dixon, S.E.A. and Clifford, A. (2007) *Ecopreneurship: A New Approach to Managing the Triple Bottom Line*, *Journal of Organizational Change Management*, 20, 3, 326-345

Drucker, P.F. (1985) *Innovation and Entrepreneurship*, Harper & Row, New York

Drucker, P.F. (1992) *The New Society of Organisations*, *Harvard Business Review*, September-October

Drucker, P.F. (1993) *Post-Capitalist Society*, Harper-Collins, New York.

Dubois, A., & Gadde, L. (2002) *Systematic combining: An Abductive Approach to Case Research*, *Journal of Business Research*, 55(7), 553-560

Durkheim, E. (1893) *The Division of Labour in Society*, Paris

EC Funding Programmes (2021) *The Previous Programme (FP7): Research and Innovation Funding 2007-2013 (Archived site)* [https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls\\_en](https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls_en)

Elkind, D. (2004) *The Problem with Constructivism*, *The Educational Forum*, 68(4), 306-312

Elkington, J. (1997) *Cannibals with Forks: The Triple Bottom Line of the 21<sup>st</sup> Century Business*, Capstone



- Erickson, F. (1986) *Qualitative Methods in Research on Teaching*. In M. Wittrock (Ed.), *Handbook of Research on Teaching* (3rd ed., pp. 119-161). New York: MacMillan
- EU-InnovatE (2017) *Final Report Summary - EU-InnovatE (Sustainable Lifestyles 2.0: End User Integration, Innovation and Entrepreneurship)*, Report Summary, EU-INNOVATE, FP7, CORDIS, European Commission [Viewed at <https://cordis.europa.eu/project/id/613194/reporting>]
- Farias, C., Fernandez, P., Hjorth, D. and Holt, R. (2019) *Organizational Entrepreneurship, Politics and the Political*, *Entrepreneurship and Regional Development*, 31 (7-8), 555-566
- Fayolle, A. (2007b) *Entrepreneurship and New Value Creation: The Dynamic of the Entrepreneurial Process*, Cambridge University Press
- Fayolle, A., Basso, O. and Tornikoski, E.T. (2011) *Entrepreneurial Commitment and New Venture Creation: A Conceptual Exploration*, in *Handbook of Research on New Venture Creation*, ed. Hindle, K. and Klyver, K., 160-179
- Feagin, J. (2013) *Systemic Racism: A Theory of Oppression*, Routledge
- Fellnhöfer, K.; Kraus, S. and Bouncken, R. (2014) *Sustainable Entrepreneurship: A Current Review of Literature*, *International Journal of Business Research*, 14, 163–172
- Ferraro, F., Etzion, D., and Gehman, J. (2015) *Tackling grand challenges pragmatically: Robust action revisited*, *Organization Studies*, 36(3), 363–390
- Foucault, M. (1969) *The Archaeology of Knowledge (L'archéologie du savoir)*, Éditions Gallimard, Bibliothèque des Sciences Humaines, English translation, London, Tavistock Publications, 1972
- FP7 Socio-economic Sciences and Humanities (2014) *Specific Programme "Cooperation": Socio-economic Sciences and Humanities*, European Commission, CORDIS [Viewed at <https://cordis.europa.eu/programme/id/FP7-SSH>]
- Freeman (1999) *Divergent Stakeholder Theory*, *Academy of Management Review*, 24, 233-236

- Freeman, R.E., Harrison, J.S., Wicks, A.C., Parmar, B.L., and de Colle, S. (2010), *Stakeholder Theory: The State of the Art*. New York, NY: Cambridge University Press
- Friedman, M. (1970) *The Social Responsibility of Business is to Increase its Profits*, The New York Times Magazine, 13 September
- Fürlinger, G., Fandl, U. and Funke, T. (2015) *The Role of the State in Entrepreneurship Ecosystem: Insights from Germany*, Triple Helix, 2(3), 1-26
- Gartner, W.B. (1988) "Who is an Entrepreneur?" is the Wrong Question, American Journal of Small Business, Sage
- Gast, J., Gundolf, K. and Cesinger, B. (2017) *Doing Business in a Green Way: A Systematic Review of the Ecological Sustainability Entrepreneurship Literature and Future Research*, Journal of Cleaner Production, 147, 44-56
- Geels, F.W. (2002) Technological Transitions as Evolutionary Reconfiguration Processes: A Multilevel Perspective and a Case Study, Research Policy, 31(8-9), 1257-1274
- Geels, F.W. (2011) *The Multilevel Perspective on Sustainability Transitions: Responses to Seven Criticisms*, Environmental Innovation and Social Transitions, 1, 24-40
- Gerlach, A. (2003) *Sustainable Entrepreneurship and Innovation*, Conference Proceedings on Corporate Social Responsibility and Environmental Management, Leeds
- Gibbs, D. (2009) *Sustainability Entrepreneurs, Ecopreneurs and the Development of a Sustainable Economy*. Greener Management International, 55, 63-78
- Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2012) *Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology*, Organisational Research Methods, 16(1), 15-31
- Glaser, B. and Strauss, A.L. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*, republished 2000, AldineTransaction

- Goodman, L. (1961) *Snowball Sampling*, *Annals of Mathematical Statistics*, 32(1), 148-170
- Goodman, N. (1951) *The Structure of Appearance*, Cambridge, MA: Harvard University Press
- Grant, A. (2020) *The World After Covid19: How Jobs, Bosses and Firms may Improve After the Crisis*, *The Economist*, London, 1 June 2020
- Grossmann, H. (1929) *The Law of Accumulation and Breakdown of the Capitalism System: Being Also a Theory of Crises*, Pluto Press, London
- Guba, E.G. and Lincoln, Y.S. (1982) *Epistemological and Methodological Bases of Naturalistic Inquiry*, *Educational Technology Research and Development*, 30, 233-252
- Gümüşay, A. (2015) *Entrepreneurship from an Islamic Perspective*, *Journal of Business Ethics*, 130(1), 199-208
- Gümüşay, A. (2018) *Unpacking Entrepreneurial Opportunities: An Institutional Logics Perspective*, *Innovation*, 20(3), 209-222
- Hafeez, K, Foroudi, P., Nguyen, B., Gupta, S., Alghatas, F. (2018), *How do Entrepreneurs Learn and Engage in an Online Community-of-Practice? A Case Study Approach*, *Behaviour & Information Technology*. 37(7), 714-735
- Hall, J.K., Daneke, G.A., and Lenox, M.J. (2010), *Sustainable Development and Entrepreneurship: Past Contributions and Future Directions*, *Journal of Business Venturing*, 25, 439-448
- Hamilton, E. (2011) *Entrepreneurial Learning in Family Business: A Situated Learning Perspective*, *Journal of Small Business and Enterprise Development*, 18(1), 8-26
- Hart, S.L. and Milstein, M.B. (1999) *Global Sustainability and the Creative Destruction of Industries*, *Sloan Management Review*, 41(1), 23
- Hayek, F.A. (1931) *Prices and Production*, Routledge, London

- Hedström, P. and Wennberg, K. (2017) *Causal Mechanisms in Organization and Innovation Studies*, *Innovation: Organization and Management*, 19(1), 91-102
- Heidegger, M. (1962) *Being and Time*, translated by J. Macquarrie and E. Robinson, New York: Harper and Row, 1962
- Heisley, D.D., and Levy, S.J. (1991), *Autodriving: A Photoelicitation Technique*, *Journal of Consumer Research*, 18 (December), 257–72
- Hertel, C. and Belz, F-M. (2017) *Community Entrepreneurship: A Systematic Review: Conceptual Clarifications and Future Directions*, *Academy of Management Annual Meeting Proceedings*. Vol. 2017 Issue 1, 1-1
- Hildreth, P. and Kimble, C. (2004) *Knowledge Networks: Innovation through Communities of Practice*, London
- Hindle, K. and Moroz, P. (2021) 'Indigenous entrepreneurship as a research field: developing a definitional framework from the emerging canon', *The International Entrepreneurship and Management Journal*, (Preprints), pp. 1–29
- Hisrich, R.D., Peters, M.P. and Shephard, D.A. (2008) *Entrepreneurship*, McGraw-Hill, UK
- Hjorth, D., Holt, R. and Steyaert, C. (2015) *Entrepreneurship and Process Studies*, *International Small Business Journal*, 33(6), 599-611
- Hockerts, K. and Wüstenhagen, R. (2010) *Greening of Goliaths versus Emerging Davids – Theorizing about the Role of Incumbents and New Entrants in Sustainable Entrepreneurship*, *Journal of Business Venturing* 25, 481-492
- Hoogendoorn, B., van der Zwan, P. and Thurik, R. (2019) *Sustainable Entrepreneurship: The Role of Perceived Barriers and Risk*, *Journal of Business Ethics*, 157 (4), 1133-1154
- Hörisch, J., Freeman, E. and Schaltegger, S. (2014) *Applying Stakeholder Theory in Sustainability Management: Links, Similarities, Dissimilarities, and a Conceptual Framework*, *Organisation and Environment*, 27 (4) 328-346
- Howell, J.T. (1972) *Hard Living on Clay Street: Portraits of Blue Collar Workers*, Prospect Heights, Illinois: Waveland Press, 392-403

- Hu, T., Zhang, D. and Wang, J. (2015) *A Meta-analysis of the Trait Resilience and mental health*, *Personality and Individual Differences*, 76 (4), 18-27
- Hudson, M., Phillips, J., Ray, K. and Barnes, H. (2007) *Social Cohesion in Diverse Communities*, Joseph Roundtree Foundation, Policy Studies Institute
- Hume, D. (1740) *A Treatise of Human Nature*, London: John Noon
- Intergovernmental Panel on Climate Change (IPCC) (2021) *Climate Change Widespread, Rapid and Intensifying*, Working Group I report, First Instalment of the IPCC's Sixth Assessment Report, The Intergovernmental Panel for Climate Change (IPCC), United Nations [accessed [www.ipcc.ch](http://www.ipcc.ch) 22 August 2021]
- Isaak, R. (2002) *The Making of an Ecopreneur*, *Greener Management International*, 38, 81-91
- Isenberg, D. (2010) *The Big Idea: How to Start an Entrepreneurial Revolution*, *Harvard Business Review* (6) [The Big Idea: How to Start an Entrepreneurial Revolution \(hbr.org\)](http://hbr.org)
- Isenberg, D. (2014) *What an Entrepreneurship Ecosystem Actually Is*, *Harvard Business Review* (5), [What an Entrepreneurship Ecosystem Actually Is \(hbr.org\)](http://hbr.org)
- Johnson, M.P. and Schaltegger, S. (2019) *Entrepreneurship for Sustainable Development: A Review and Multilevel Causal Mechanism Framework*, *Entrepreneurship Theory and Practice*, 00 (0), 1-33
- Johnson-Laird, P. (1999) *Deductive Reasoning*, *Annual Review of Psychology*, 50(1), 109-135
- Jørgensen, K.M. and Boje, D.M. (2010) *Resituating Narrative and Story in Business Ethics*, *Business Ethics: A European Review*, 19(3), 253-264
- Kant, I. (1781, 1787) *Critique of Pure Reason*, Berlin: Georg Reimer, translated by P. Guyer and A. Wood, Cambridge: Cambridge University Press, 1997
- Keogh, P.D. and Polonsky, M.J. (1998) *Environmental Commitment: A Basis for Environmental Entrepreneurship?* *Journal of Organisational Change Management*, 11(1), 38-49

- Keynes, J.M. (1936) *The General Theory of Employment, Interest and Money*, Palgrave Macmillan
- Kietzmann, J., Plangger, K., Eaton, B., Heilgenberg, K., Pitt, L. and Berthon, P. (2013) *Mobility and Work: A Typology of Mobile Communities of Practice and Contextual Ambidexterity*, *Journal of Strategic Information Systems*, Vol 3(4), 282-297
- Kirzner, I. (1973). *Competition and entrepreneurship*. Chicago: University of Chicago Press
- Kirzner, I. (1979). *Perception, Opportunity, and Profit: Studies in the Theory of Entrepreneurship*. Chicago: University of Chicago Press
- Kislov, R., Harvey, G. and Walshe, K. (2011) *Collaborations for Leadership in Applied Health Research and Care: Lessons from the Theory of Communities of Practice*, *Implementation Science* 6 (1), 64
- Klein, P.G., Mahoney, J.T., McGahan, A.M. and Pitelis, C.N. (2010) *Towards a Theory of Public Entrepreneurship*, *European Management Review*, 7, 1-15
- Kletz, P. and Cornuel, E. (2016) *Sustainable Entrepreneurship: Eternal Beginnings*, Nicolopoulou, K., Karatas-Ozkan, M., Janssen, F., & Jermier, J. (eds.). (2016) *Sustainable Entrepreneurship and Social Innovation* (1st ed.). Routledge
- Knight, F. (1921). *Risk Uncertainty and Profit*. New York: HoughtonMifflin
- Kozinets, R. (2002) *The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities*, *Journal of Marketing Research*, 39 (February), 61-72
- Kraus, S.; Burtscher, J.; Vallaster, C.; Angerer, M. (2018) *Sustainable Entrepreneurship Orientation: A Reflection on Status-Quo Research on Factors Facilitating Responsible Managerial Practices*, *Sustainability*, 2018, 10, 444 (20)
- Krippendorff, K. (2004) *Content Analysis: An Introduction to Its Methodology*, California: Sage, 87–89.
- Krueger, O. (2005) *The Role of Ecotourism in Conservation: Panacea or Pandora's Box?* *Biodiversity and Conservation*, 14, 3, 579-600

- Kuckertz, A. and Wagner, M. (2010) *The Influence of Sustainability Orientation on Entrepreneurial Intentions – Investigating the Role of Business Experience*, *Journal of Business Venturing*, 25, 524-539
- Kuhn, R. (1995) *Capitalism's Collapse: Henryk Grossmann's Marxism*, *Science and Society*, 59 (2), 174-192
- Kuhn, T.S. (1962) *The Structure of Scientific Revolutions*, University of Chicago Press
- Kuratko, D.F. (2009) *The entrepreneurial imperative of the 21st century*, *Business Horizons*, 52 (5), 421–428.
- Kuratko, D.F. (2011) *Entrepreneurship Theory, Process, and Practice in the 21st Century*, *International Journal of Entrepreneurship and Small Business* 13 (1), 8-17
- Latour, B. (2005) *Reassembling the Social: An Introduction to Actor-Network-Theory*, Oxford - New York, Oxford University Press
- Lave, J. (1991) *Situated Learning in Communities in Practice*, in Resnick, L.B., Levine, J.M. and Teasley, S.D. (eds), *Perspectives on Socially Shared Cognition*, American Psychological Association, 63-82
- Lave, J. and Wenger, E. (1991) *Situating Learning: Practice: Legitimate Peripheral Participation*, Cambridge University Press
- Leadbetter, C. (1997) *The Rise of Social Entrepreneurship*, Demos, London.
- Lefebvre, V., Lefebvre, M.R. and Simon, E. (2015) *Formal entrepreneurial networks as communities of practice: a longitudinal case study*, *Entrepreneurship and Regional Development*, Taylor & Francis (Routledge), 27 (7-8), 500-525
- Lévi-Strauss, C. (1962) *The Savage Mind*, Plon, Paris
- Linnanen, L. (2002), *An Insider's Experiences with Environmental Entrepreneurship*, *Greener Management International*, 38, 71-80
- Lorhard, J., and Uckelman, S.L. (2008) *Diagraph of Metaphysics or Ontology – Jacob Lorhard (1606)*, *Scholastic Ogdoas*, Book 8 [downloaded 1/9/2021 at [english-ontology.pdf \(ellipsis.cx\)](#)]

- Luke, B., Verreynne, M-L. and Kearins, K. (2007) *Measuring the benefits of entrepreneurship at different levels of analysis*, Journal of Management and Organisation, Cambridge University Press
- Mair, J. and Marti I. (2006) *Social Entrepreneurship Research: A Source of Explanation, Prediction and Delight*, Journal of World Business
- Mantere, S. and Ketokivi, M. (2013) *Reasoning in organization science*, Academy of Management Review, 38(1), 70–89
- March, J. (1994) *Primer on Decision Making: How Decisions Happen*, Simon and Schuster, New York Free Press
- Markman, G.M. and Baron, R.A. (2003) *Person-Entrepreneurship Fit: Why Some People Are More Successful Entrepreneurs Than Others*, Journal of Business Venturing
- Markman, G.M., Russo, M., Lumpkin, G.T., Devereau, P., and Mair, J. (2016) *Entrepreneurship as a Platform for Pursuing Multiple Goals*, A Special Issue on Sustainability, Ethics, and Entrepreneurship, Journal of Management Studies
- Marshall, M.N. (1996) *Sampling for Qualitative Research*, Family Practice, 13 (6), 522-525
- Marshall, M. (2020) *Statement by College Chair Martin Marshall on Race and Equality following the death of George Floyd, and the Black Lives Matter movement*, Royal College of General Practitioners, 5 June 2020
- Marx, K. (1863) (unpublished manuscript), *Theories of Surplus Value*, published in 1969 by Progress Publishers, Moscow
- McAuliffe, W.H. (2015) *How did Abduction Get Confused with Inference to the Best Explanation?* Transactions of the Charles S. Peirce Society: A Quarterly Journal in American Philosophy, 51(3), 300-319
- McCracken, G. (1998) *The Long Interview*, Newbury Park, CA: Sage
- McClelland, D.C. (1987) *Characteristics of successful entrepreneurs*, Journal of Creative Behaviour, 21 (3), 219 – 233



- McGahan, A., Zelner, B.A. and Barney, J.B. (2013) *Entrepreneurship in the Public Interest: Introduction to the Special Issue*, Strategic Entrepreneurships Journal, 7, 1-5
- McMullen, J.S. and Shepherd, D.A. (2006) *Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur*, Academy of Management Review, 31(1), 132–152
- Menger, C. (1871) *Principles of Economics*, Braumüller, Vienna
- Menon, A. and Menon, A. (1997) *Enviropreneurial Marketing Strategy: The Emergence of Corporate Environmentalism as Market Strategy*, The Journal of Marketing, 51-67
- Miller, T., Grimes, M., McMullen, J. and Vogus, T. (2012) *Venturing for Others with Heart and Head: How Compassion Encourages Social Entrepreneurship*, Academy of Management Review, 37 (4), 616-640
- Mind (2021) *How Common Are Mental Health Problems?*, Mind, [How common are mental health problems? | Mind, the mental health charity - help for mental health problems](#) [Downloaded 10/5/2021]
- Mises, L., (1912) *Theory of Money and Credit*
- Mitchell, J.R., Mitchell, R.K., Mitchell, B.T. and Alvarez, S. (2012) *Opportunity Creation, Underlying Conditions and Economic Exchange*, Corbett A.C. and Katz, J.A. (ed.) *Entrepreneurial Action Advances in Entrepreneurship, Firm Emergence and Growth*, Vol. 14, Emerald Group Publishing Limited, 89-123
- Mitchell, R. (2016) *Entrepreneurs are Built, not Born*, Entrepreneur & Innovation Exchange (Published online at [www.EIX.org](http://www.EIX.org) on May 09 2016)
- Mongoya, K. (2021) *Community pantries inspire hope amid pandemic and economic crisis in the Philippines*, Global Voices [Accessed 2.6.2021 [Community pantries inspire hope amid pandemic and economic crisis in the Philippines · Global Voices](#)]

- Mørk, B.E., Hoholm, T. Ellingsen, G., Edwin, B. and Aanestad, M. (2010) *Challenging Expertise: On Power Relations Within and Across Communities of Practice in Medical Innovation*, *Management Learning*, 41(5), 575-592
- Mullins, D., Czischke, D. and van Bortel, G. (2012) *Exploring the Meaning of Hybridity and Social Enterprise in Housing Organisations*, *Housing Studies*, 27, 405-417
- Myers, M.D. (2008) *Qualitative Research in Business and Management*, SAGE
- Nayyar, N. (2017) *Role of SHGs (Self Help Groups) in Rural Women Entrepreneurship: An Overview*, *Journal of Commercial and Management Thought*, 8 (4), 777-789
- Oborn, E. and Dawson, S. (2010) *Learning across Communities of Practice: An Examination of Multidisciplinary Work*, *British Journal of Management*, 21(4), 843-858
- Office for National Statistics (ONS) (2018) *The 2008 Recession 10 Years On* [accessed 26.2.2022 [The 2008 recession 10 years on - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/economy/banking-and-finance/articles/the-2008-recession-10-years-on)]
- O'Reilly, K. (2009) *Key Concepts in Ethnography*, SAGE
- Organisation for Economic Co-operation and Development (OECD) (2000) *Social Enterprises*, OECD Publishing, Paris
- Organisation for Economic Cooperation and Development (OECD) (2021) *Focus on an Inclusive Recovery* [accessed [OECD | Focus on an inclusive recovery](https://www.oecd.org/economic-outlook/focus-on-an-inclusive-recovery/) 22 July 2021]
- Pan, S.L. and Leidner, D.E. (2003) *Bridging Communities of Practice with Information Technology in Pursuit of Global Knowledge Sharing*, *The Journal of Strategic Information Systems*, 12(1), 71-88
- Pannekoek, A. (1934) *The Theory of the Collapse of Capitalism*, translated Buick, A. (1977) in *Capital and Class*, Spring 1977 [accessed at: [The theory of the collapse of capitalism by Anton Pannekoek \(marxists.org\)](https://www.marxists.org/archive/pannekoek/works/theory-of-the-collapse-of-capitalism/)]

- Parsons, T. (1975) *The Present Status of "Structural-Functional" Theory in Sociology*, In *Social Systems and The Evolution of Action Theory*, New York: The Free Press
- Participant (2022) [www.participant.com](http://www.participant.com) [accessed Feb 2022]
- Pastakia, A. (1998) *Grassroots Ecopreneurs: Change Agents for a Sustainable Society*, *Journal of Organizational Change Management*, 11(2), 157-173
- Paul, B. (1953) *Interview Techniques and Field Relationships*, *Anthropology Today* (edited A.L. Kroeber), 430-451, Chicago, University of Chicago Press
- Peirce, C.S. (1877) *Illustrations of the Logic of Science*, *Popular Science Monthly*, 12 (11), 1-14 (also available 2014, edited C. de Waal, Open Court, Chicago)
- Popper, K. (1957) *The Poverty of Historicism*, Routledge and Kegan Paul, London
- Rauch, A and Frese, M. (2007) *Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success*, *European Journal of Work and Organizational Psychology*, 16(4), 353–385
- Raworth, K. (2017) *Donut Economics: Seven Ways to Think Like a 21<sup>st</sup> Century Economist*, Cornerstone
- Roberts, J. (2006) *Limits to Communities of Practice*, *Journal of Management Studies*, 43(3), 623-629
- Rockwool (2022) *Insulation products from a leading stone wool insulation provider* [Accessed 26.2.2022 [insulation products from a leading stone wool insulation provider \(rockwool.com\)](http://insulation.products.from.a.leading.stone.wool.insulation.provider.rockwool.com)]
- Rodgers, C. (2010) *Sustainable Entrepreneurship in SMEs: A Case Study Analysis*, *Corporate Social Responsibility and Environmental Management*, 17, 125-132
- Rogge, E. and Ohnesorge, L. (2021) 'Europe's Green Policy: Towards a Climate Neutral Economy by Way of Investors' Choice', *European Company Law*, 18(1), pp. 34–39
- Ronstadt, R.C. (1984) *Entrepreneurship: Text, Cases and Notes*, Lord Pub

- Roundy, P. T. and Bonnal, M. (2017) *The Singularity of Social Entrepreneurship: Untangling its Uniqueness and Market Function*, *The Journal of Entrepreneurship*, 26(2), 137–162. doi: 10.1177/0971355717708068
- Royal College of Psychiatrists (2021) *Social Prescribing*, Position Statement, PS01/21, March 2021
- Russell, B.G. (1991) *Silent Sisters: An Ethnology of Homeless Women*, Hemisphere Publishing Corporation (Last published Routledge, 2011)
- Salkind, N.J. (2010) *Encyclopaedia of Research Design*, Sage Publications Inc., USA
- Santos, G.M.C., Marquez, C.M., Ferreira, J.J., Gerry, C. and Ratten, V. (2017) *Women's entrepreneurship in Northern Portugal: psychological factors versus contextual influences in the economic downturn*, *World Review of Entrepreneurship, Management and Sustainable Development*, 13(4), 418-440
- Sarango-Lalangui, P., Santos, J.L.S. and Hormiga, E. (2018) *The Development of Sustainable Entrepreneurship Research Field*, *Sustainability*, 2005(10)
- Schaltegger, S. (2002) *A Framework for Ecopreneurship: Leading Bioneers and Environmental Managers to Ecopreneurship*, *Greener Management International*, 38, 45-58
- Schaltegger, S. and Wagner (2011) *Sustainable Entrepreneurship and Sustainability Innovation: Categories and Interactions*, *Business Strategy and the Environment*, 20 (4), 222-237
- Schaltegger, S., Beckmann, M. and Hockerts, K. (2018) *Collaborative entrepreneurship for sustainability. Creating solutions in light of the UN sustainable development goals*, *International Journal of Entrepreneurial Venturing*, 10(2), 131–152
- Schaper, M.T. (2002) *The Essence of Ecopreneurship*. *Greener Management International*, 38, 27-30
- Schlange, L.E. (2006) *What Drives Sustainable Entrepreneurs?* Paper presented at the Applied Business and Entrepreneurship Association International Conference, Kona, 16-20 November 2006

- Schoemaker, P.J. (1995) *Scenario Planning: A Tool for Strategic Thinking*, Sloan Management Review, 36(2), 25-40
- Schroedel, J. (2019) *What's the Difference? Radical vs. Incremental Change*, CitizenLab [Accessed 28 May 2021 [What's the difference? Radical vs. Incremental Change - CitizenLab's Blog](#)]
- Schumpeter, J. (1942) *Capitalism, Socialism and Democracy*, Harper and Brothers, U.S.A.
- Schumpeter, J. (1947) *The Creative Response in Economic History*, The Journal of Economic History, 7 (2), 149-159
- Schuyler, G. (1998) *Merging Economic and Environmental Concerns through Ecopreneurship*, Kauffman Center for Entrepreneurial Leadership Clearing House on Entrepreneurship Education (CELCEE), Digest 98-8, 3-7, Kansas City
- Schwab, K. and Malleret, T. (2020) *Covid19: The Great Reset*, The World Economic Forum, Agentur Schweiz
- Shah, S. and Tripsas, M. (2007) *The Accidental Entrepreneur: The Emergent and Collective Process of User Entrepreneurship*, Strategic Entrepreneurship Journal, 1, 123-140
- Shane, S. and Venkataraman, S. (2000) *The Promise of Entrepreneurship as a Field of Research*, Academy of Management Review, 25(1), 217-226
- Shapiro, A. (1985) *Why Entrepreneurship? A Worldwide Perspective*, Journal of Small Business Management, Milwaukee
- Sharratt, M. and Usoro, A. (2003) *Understanding Knowledge-sharing in Online Communities of Practice*, Electronic Journal on Knowledge Management, 1(2), 187-196
- Shesky, L.E. (1994) *Entrepreneurs are Made not Born*, McGraw-Hill
- Shepherd, D.J. and Haynie, M. (2009) Birds of a feather don't always flock together: Identity management in entrepreneurship, *Journal of Business Venturing*, 24(4), 316-337, <https://doi.org/10.1016/j.jbusvent.2007.10.005>.

- Shepherd, D.A. (2019) "Researching the Dark Side, Downside, and Destructive Side of Entrepreneurship: It is the Compassionate Thing to Do!" *Academy of Management Discoveries*, 5 (3), 217–220,  
<https://doi.org/10.5465/amd.2018.0194>
- Shepherd, D.A., Osofero, M. and Wincent, J. (2022) Document details - A personal adversity model of justifying the costs of entrepreneurial action: The case of oil thieves in the Niger DELTA, *Journal of Business Venturing*, 37 (1), 1-20
- Shields, C. (2020), "Aristotle", *The Stanford Encyclopedia of Philosophy* (Fall 2020), Zalta, E.N.(ed.), [Accessed 5 September 2021  
<https://plato.stanford.edu/archives/fall2020/entries/aristotle/>]
- Silver, C. and Lewins, A. (2014) *Using software in qualitative research: A step-by-step guide* (2nd ed.), Thousand Oaks, CA: Sage
- Silverman, D. (ed.) (2020) *Qualitative Research*, (5<sup>th</sup> ed), Sage
- Sims, M. (2009) *Insights from a Management Prophet: Mary Parker Follett on Social Entrepreneurship*, *Business and Society Review*, 114(3), 349-363
- Siqueira A., Monzoni M., Mariano S., Moraes J., Branco P., Coelho A. (2014) *Innovation Ecosystems in Brazil: Promoting Social Entrepreneurship and Sustainability*. In: Pate L., Wankel C. (eds) *Emerging Research Directions in Social Entrepreneurship. Advances in Business Ethics Research (A Journal of Business Ethics Book Series)*, 5, Springer, Dordrecht
- Skoll Foundation (2022) [www.skoll.org](http://www.skoll.org) [accessed February 2022]
- Smith, M. J., (2010) *From Big Government to Big Society: Changing the State–Society Balance*, *Parliamentary Affairs*, 63 (4), 818–833,  
<https://doi.org/10.1093/pa/gsq023>
- Spencer, H. (1898) *The Principles of Sociology*, 3 vols., D. Appleton and Company, New York
- Spigel, B. (2017) *The Relational Organisation of Entrepreneurial Ecosystems*, *Entrepreneurship Theory and Practice*, 41(1), 49-72

- Spigel, B. and Kitagawa, (2020) *A Manifesto for Researching Entrepreneurial Ecosystems*, *Local Economy*, 35(5), 482-495
- Spradley, J.P. (1980) *Participant Observation*, Orlando, Florida: Harcourt Publishers, 58-62
- SPREAD (May 2012) *Sustainable Lifestyles 2050* [Downloaded 1 March 2021 at [THE FOUR SCENARIOS: Sustainable Lifestyles 2050 \(sustainable-everyday-project.net\)](https://www.sustainable-everyday-project.net) ]
- Stigler, G. (1961) *The Economics of Information*, *Journal of Political Economy*, 69(3), 213-225
- Stiglitz, J., Sen A. and Fitoussi, J-P. (2009) *Report by the Commission on the Measurement of Economic Performance and Social Progress*, [Downloaded 31 May 2021 at [Report of the commission on the measurement of economic performance et social progress \(europa.eu\)](https://ec.europa.eu/economy_finance/comm-report-2009-09-02_en)]
- Stinchfield, B. T., Nelson, R. E. and Wood, M. S. (2013) "Learning from Levi-Strauss' Legacy: Art, Craft, Engineering, Bricolage, and Brokerage in Entrepreneurship." *Entrepreneurship Theory and Practice*, 37 (4), 889 - 921
- Stoner, J.A.F. and Wankel, C. (eds) (2007) *Innovative Approaches to Reducing Global Poverty*, Information Age Publishing
- Tallman, S., Jenkins, M., Henry, N., and Pinch, S. (2004), *Knowledge, Clusters, and Competitive Advantage*, *The Academy of Management Review*, 29, 258-271
- Thomas, T.C., Price, L.L. and Schau, H.J. (2013) *When Differences Unite: Resource Dependence in Heterogeneous Consumption Communities*, *Journal of Consumer Research*, The University of Chicago Press, 39 (5), 1010-1033
- Thompson, N., Kiefer, K. and York, J.G., (2011) Distinctions not dichotomies: Exploring social, sustainable, and environmental entrepreneurship. In *Social and sustainable entrepreneurship*. Emerald Group Publishing Limited
- Thompson, T., Purdy, J. and Ventresca, M.J. (2017) *How Entrepreneurial Ecosystems Take Form: Evidence from Social Impact Initiatives in Seattle*, *Strategic Entrepreneurship Journal*, 12(1), 96-116

- Thunberg, G. (2019) *No-one is Too Small to Make a Difference*, Penguin Books
- Tiratelli, L. and Kaye, S. (2020) *Communities vs Coronavirus: The Rise of Mutual Aid*, New Local Government Networks, 15 July 2020
- Tripsas, M. (1997) *Unraveling the Process of Creative Destruction: Complementary Assets and Incumbent Survival in the Typesetter Industry*, Strategic Management Journal, 18, 119-142
- Tsing, A.L. (2017) *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*, Princeton University Press
- Tuchman, G. (1994) *Historical Social Science: Methodologies, Methods, and Meanings*, In NK Denzin and Y.S. Lincoln (Eds.), *Handbook of Qualitative Research*, 306-323, Sage
- Turner, J.H. (2001) *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier Ltd
- UK Government (Dec 2020) *Climate Change and Energy* <https://www.gov.uk/government/news/pm-announces-the-uk-will-end-support-for-fossil-fuel-sector-overseas>, [accessed 29.5.2021]
- UK National Statistics (2020) *UK Energy in Brief 2020*, Department for Business, Energy & Industrial Strategy
- Umpleby, S. (2010) *From Complexity to Reflexivity: Underlying Logics Used in Science*, Journal of the Washington Academy of Sciences, 96(1), 15-26
- Unilever Foundry (2021) *Unilever's Platform for Partnership with Start-ups to Accelerate Innovation on a Global Scale* [[Innovation through Collaboration | The Unilever Foundry](#)]
- United Nations (2015) *Sustainable Development Goals (SDGs)* [[Home | Sustainable Development \(un.org\)](#)]
- Vadde, V. and Ratnam, V. N. (2014) *The Impact of Self-Help Groups on Women Entrepreneurship: A Study*, IUP Journal of Entrepreneurship Development, 11 (3), 38-48



- Van Dijk, T. (2001) *Critical Discourse Analysis*, in *The Handbook of Discourse Analysis* (eds. Schiffrin, D., Tannen, D., Hamilton, H.E.), Blackwell Publishers Ltd, USA, 352–371
- Wadhvani, R.D., Kirsch, D., Welter, F., Gartner, W. and Jones, G. (2020) *Context, time, and change: Historical approaches to entrepreneurship research*, *Strategic Entrepreneurship Journal*, 14 (1), 3-19
- Walley, E. and Taylor, D. (2002) *Opportunists, Champions, Mavericks? A Typology of Green Entrepreneurs*, *Greener Management International*, 38, 31-35
- Walton, S. and Kirkwood, J.J. (2013) *Tempered Radicals! Ecopreneurs as Change Agents for Sustainability – An Exploratory Study*, *International Journal of Social Entrepreneurship and Innovation*, 2(5), 461-475
- Wankel, C. (2008) (ed) *Alleviating Poverty through Business Strategy*, Palgrave
- Warren, L. (2004) *Negotiating Entrepreneurial Identity: Communities of Practice and Changing Discourses*, *Entrepreneurship and Innovation*, Feb, 25-35
- Wasko, M. and Faraj, S. (2005) *Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice*, *MIS Quarterly* 29 (1), 35-57
- Watson, R., Nielsen, K.R., Wilson, H.N., Macdonald, E.K., Mera, C. and Reisch, L. (November 2022, In press) *Policy for Sustainable Entrepreneurship: A Crowdsourced Framework*, *Journal of Cleaner Production*
- World Economic Forum (2020) *The Great Reset*, [www.weforum.org/great-reset](http://www.weforum.org/great-reset)
- Weber, M. (1930) *The Protestant Ethic and The Spirit of Capitalism* (translated by T. Parsons)
- Weidinger, C., Fischler, F. and Schmidpeter, R. (2014) (Eds.) *Sustainable Entrepreneurship: Business Success through Sustainability*, Springer
- Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity*, Cambridge University Press

- Wenger, E. (2000) *Communities of Practice and Social Learning Systems*, Organization, 7(2), 225–246
- Wenger, E. (2011) *Communities of Practice: A Brief Introduction*, National Science Foundation (US)
- Wenger, E., McDermott, R.A. and Snyder, W. (2002) *Cultivating Communities of Practice: A Guide to Managing Knowledge*, Harvard Business Press
- Wenger, E., Trayner, B., and deLaat, M. (2011) *Promoting and Assessing Value Creation in Communities and Networks: A Conceptual Framework*, [www.wenger-trayner.com](http://www.wenger-trayner.com) (Downloaded 15 Nov 2020 [https://wenger-trayner.com/documents/Wenger Trayner DeLaat Value creation.pdf](https://wenger-trayner.com/documents/Wenger_Trainer_DeLaat_Value_creation.pdf))
- Wenger, E. and Wenger-Trayner, B. (2015) *Communities of Practice: An Introduction*, National Science Foundation (US)
- Wiedmann, T.O., Schandl, H., Lenzen, M., Moran, D., Suh, S., West, J. and Kanemoto, K. (2013) *The Material Footprint of Nations*, Proceedings of the National Academy of Sciences, Sept 2013, 112 (20)
- Wilson, H. (2004) *Towards Rigour in Action Research: A Case Study in Marketing Planning*, European Journal of Marketing; 2004; 38 (3/4), 378-400
- Windup Radio, *About Trevor Baylis, the inventor of the windup technology* [Accessed 26.2.2022 [About Trevor Baylis, the inventor of the windup technology - Windupradio.com](http://Windupradio.com)]
- Yates, J. (2009) *All Time Essentials for Entrepreneurs: 100 Things to Know and Do to Make Your Ideas Happen*, Wiley & Sons
- Yin, R. (2014) *Case Study Research: Design and Methods* (5<sup>th</sup> ed.) Thousand Oaks, CA: Sage Publications
- York, J.G. and Venkataraman, S. (2010) *The Entrepreneur–Environment Nexus: Uncertainty, innovation, and allocation*, Journal of Business Venturing, 25(5), 449-463

Zahra, S.A., Gedajlovic, E., Neubaum, D.O. and Schulman, J.M. (2009) *A Typology of Social Entrepreneurs: Motives, Search Processes and Ethical Challenges*, *Journal of Business Venturing*, 24(5), 519-532



## APPENDICES

### A.1 Online conference: Physical invitation

A double-sided postcard



**The Sustainability Innovation Exchange**

Invitation to join our conversation...

'How can policy channel the innovative power of individuals towards more sustainable ways of living?'

**Virtual workshop: Wednesday 25 May 2016**

Session 1: 10 - 11.30am UK  
(11am - 12.30pm Europe)

Session 2: 2 - 3.30pm UK  
(3 - 4.30pm Europe)

Register now: [www.globescanforum.com/sustainability\\_innovation\\_exchange](http://www.globescanforum.com/sustainability_innovation_exchange)  
#SustainEx



**The Sustainability Innovation Exchange** GLOBESCAN

Do you have an interest in sustainability and/or innovation?

Do you believe in the 'power of many' to solve the complex sustainability challenges we all face?

If so, join our virtual workshop and together we will develop recommendations for policymakers on the role they should play to support individuals to innovate for sustainability. An event led by Cranfield University and hosted by GlobeScan.



Ordinary people living in the UK and Europe, including entrepreneurs and the end users of products and services, have huge potential to be innovation drivers in the transition to more sustainable ways of living. We need public policy to support people making changes which have positive environmental and social impacts.

**The six areas of policy that we will discuss are:**

- Education
- Networks
- Funding
- Scaling up
- Impact
- Open policy making

**Moderated by Cranfield experts, including:**

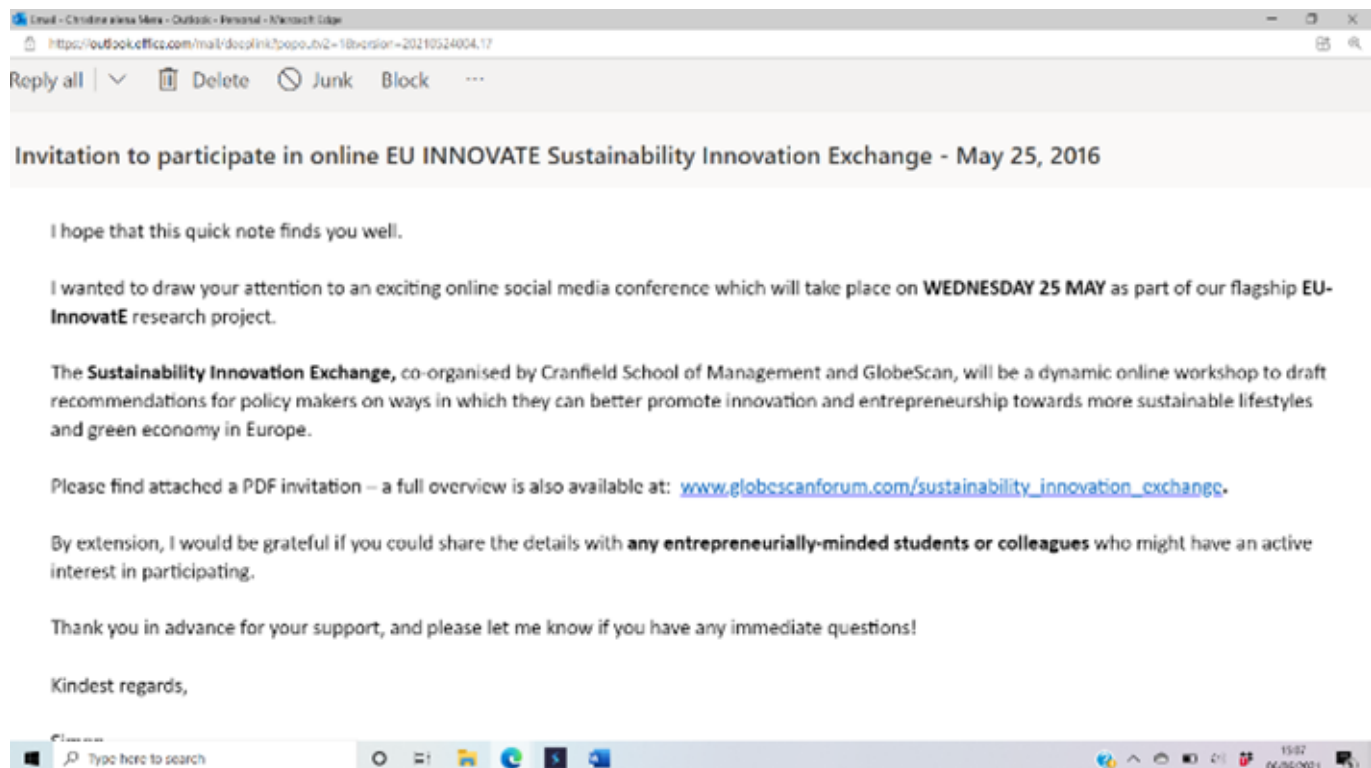
- Professor David Grayson CBE, Director of The Doughty Centre for Corporate Responsibility
- Dr Stephanie Hussels, Bettany Centre for Entrepreneurship
- Dr Ruth Bender, Associate Professor

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 613194

EUINNOVATE

Register now: [www.globescanforum.com/sustainability\\_innovation\\_exchange](http://www.globescanforum.com/sustainability_innovation_exchange)  
#SustainEx

## A.2 Online conference: Example of electronic invitation



The screenshot shows an Outlook email window. The title bar reads "Email - Christine Mera - Outlook - Personal - Microsoft Edge". The address bar shows "https://outlook.office.com/mail/doclink?open=2-18&version=20210524004.17". The email header includes "Reply all", "Delete", "Junk", and "Block" buttons. The subject line is "Invitation to participate in online EU INNOVATE Sustainability Innovation Exchange - May 25, 2016".

I hope that this quick note finds you well.

I wanted to draw your attention to an exciting online social media conference which will take place on **WEDNESDAY 25 MAY** as part of our flagship **EU-InnovatE** research project.

The **Sustainability Innovation Exchange**, co-organised by Cranfield School of Management and GlobeScan, will be a dynamic online workshop to draft recommendations for policy makers on ways in which they can better promote innovation and entrepreneurship towards more sustainable lifestyles and green economy in Europe.

Please find attached a PDF invitation – a full overview is also available at: [www.globescanforum.com/sustainability\\_innovation\\_exchange](http://www.globescanforum.com/sustainability_innovation_exchange).

By extension, I would be grateful if you could share the details with **any entrepreneurially-minded students or colleagues** who might have an active interest in participating.

Thank you in advance for your support, and please let me know if you have any immediate questions!

Kindest regards,

The screenshot also shows the Windows taskbar at the bottom with a search bar, task icons, and system tray icons including the date and time (15:07 06/05/2016).

### **A.3 Policymaker Interviews: guide**

Firstly thank you for agreeing to partake in our interview. I would like to take this opportunity to shortly introduce the aim of our research project. Broadly speaking we are interested in uncovering policy maker insights into the field of sustainable innovation from the point-of-view of the consumer. Where the consumer, rather than being viewed as the traditional passive recipient of goods of services, is the driver of innovation via either independent action or collaboration fashion with firms and other stakeholders.

#### **Pre-interview**

Before we begin, I would like to ask you whether you want this interview to be anonymous as is the rule in studies within social sciences, or whether you want us to mention your name in our future publication.

Finally do you have any questions or comments before we begin our short interview?

#### **INTRO**

1. Can you first tell me what is your job at [policy agency] and when did you start working for the [policy agency]?

#### **OPENING QUESTIONS**

2. What do you view the consumers role within the transition towards a greener economy?
3. How aware are policymakers of this type of consumer driven innovation?

#### **BARRIERS AND FACILITATORS FROM CONSUMER SIDE**

4. What do you perceive as being the greatest barriers to consumer led innovation?
5. Could or should policy focus on type of innovation process. If so why or why not?
  - a. What can policy do to help ameliorate consumer led innovation?

#### **BARRIERS AND FACILITATORS FROM FIRM SIDE**

6. What do you perceive as being the greatest barriers to firm's integrating consumers into their innovation process?
7. Could or should policy play a role in encouraging firms to bring in consumers into their innovation process? If so why or why not?
  - a. What can policy do to help ameliorate the process of consumer integration?



#### **A.4 Policymaker Interviews: transcript (1 of 25)**

Me: Are you happy for me to record your responses, we would keep everything anonymised if we were to publish anything. You may stop the interview at any point, hope you got a gist of what we are trying to achieve, but part of the same EUInnovatE project as the workshop I met you at and we're trying to find out a little bit more about what are the challenges or enablers within policy currently for sustainable entrepreneurship looking specifically at the policy maker/shaper currently in this part of the research. So that's kind of the background to it. Okay so can I just ask you if it's alright for you to give me your job and your policy or agency...

PM48: What do you know about NESTA?

Me: not very much

PM48: Where we run at the time programmes, so it's predominantly for public services so we push healthcare, education, that is kind of how we view emerging trends and how we can work to deliver better, more efficient, low cost public services. So for example bringing efficiency into schools, and more services into the NHS and we understand how to develop that.

Me: OK

PM48: The other area that NESTA works in, we almost operate as a think tank, we look at future trends with influence on UK economy side and also more globally and how they can affect UK and also the language around that and so work closely with UK government department but also British companies and for any given sector understanding future trends and what .... industry in the UK and across ... for banks, ... makers, ...capital funding and so on. And we also run an impact assessment team which you ... invest in ... social and non-profits with initial investment and a support team which works with all of those teams so we see how we can learn from all of the teams to share our skills to develop how we work within the Business team so we look at start-ups so a lot of what I do will affect the work of the other teams.

Me: So in terms of what we're looking at, we're looking at sustainable innovation, so that leads on quite nicely from what you've been explaining to me about NESTA and their role. What would you would see as the role of policy in terms of sustainable innovation specifically?

PM48: I mean, that's a very broad question

Me: It is

PM48: The one thing, if I can come back, one thing I struggled with a little bit in the workshop is how we defined sustainability because part of the debate at the workshop was around kind of climate?

Me: Yes

PM48: and the other part was more around, I guess, it was almost sustainable business models, business models

CM: Yeah, I mean I think, I think the issue there is that EUInnovatE is very much looking at sustainability as in a Triple Bottom Line so looking at people, profits and planet so there is the environmental aspect within that, but it isn't purely climate it is everything, they're looking at energy, everything.

PM48: One of my more critical comments of the workshop was that I felt like technically it was looking at too many different aspects

Me: Yeah

PM48: So all really valuable ideas but sometimes we spoke in many directions. One of the things we talked quite a lot about in policy making is always trying to contextualise, sustainability for me wouldn't have been a particular policy area so rather education, farming, economic development, because otherwise it becomes a very abstract for policy makers to engage with. Otherwise we have these very broad kind of set of trends with crowdfunding etc but then we need to dig in and say what does this mean for a particular area

Me: Yeah

PM48: So just with that caveat I would think what is the role of policymakers, well...

CM: Yes the role of policy

PM48: I'm starting to think what do I answer because there are so many things, the main thing is kind of to use the power of kind of ... to create a more suitable environment for innovations and as well as having the conversation to achieve triple bottom line outcomes if you want so I think one of the things about the workshop is that means going back to some of the most boring things around innovation, so how do we think about mission, impact, because in all those mechanics of public policy and some of the changes to how the fundamental systems of power operate so in general at NESTA if we look at the work we do, we've gone from how we're going to embed sustainability within this business to beginning with how can we design this thing really well so going back 5/10 years ago we decided that impact factors in public services were never going to work and the reason for this is that the ... challenges around impact measurement, instruments also change and then ... so most of our work now focuses on how you make ... solutions which I guess none of them are sustainability , unless it's a higher, great idea that runs for 18 months with a bit of ... funding because there is no ... for making decisions out of it.

So I think there has to be within any kind of public ... on sustainability there has to be, how do we

PM48: So I think it would be helpful if I send you a couple of reports we've done with that focus because there's one which is the sort of systemic which of course is fine and based more experimental .... There is also one called the Big Green Planet which was the way ... innovations could work if you want to create the world's best ... then

that's a challenge for most companies to seek to provide a solution to, because for most companies environmental challenges So I think that's another way of looking at policy.

Me: So that's more community based because we're looking at the consumer driven end of things so rather than just the big corporates taking the lead, so they also have a role to play but in terms of policy facilitating consumer driven innovation that's quite interesting because it plays to what we're looking into.

PM48: So another thing is how to, I think a lot of the issues around sustainability is the disconnect between what we consume, the money we get paid this is a very complex climate. A lot of the work we are doing in our (work)... around digital and social innovation, how we can use new digital platforms to monitor. consumption and deal between government. So what is my consumption, how can I also influence other people's consumption in my local environment, so one of my favourite example is people using their mobile phones or other hardware type to manage local environment and provide solution, to understand on my street what my local issues are and my consumption, what I can do.

PM48: Have you read Creating an environment. NESTA's "Making sense of the collaborative economy" – you can download all reports from NESTA website - free of charge

For capacity building - in the realm of sustainability there is a lot of supply of good innovation but not so much ... government could upskill the capacity of business

I do a lot of work with the voluntary sector in the UK, they are key player, we talk about crowdfunding which is just one

Working with charity; Massive capacity in the economy, in society to do things in more sustainable ways, people don't have the knowledge or the use of the technology to share. Skills gap and educating take a view of young people who only see one side of their living, I think there is that challenge, it's also a case of understanding.

PM48: So there is also a matter of understanding the geographical context we just a published a report, access to a small area.

Me: To what extent that becomes part of their business model, policy makers, consumers.. this gap between the environment. Government creating an environment for corporates to achieve profit while also delivering on triple bottom line.

PM48: A couple of reports you might find useful: the UK government; collaborative economy; Big Green Planet, Bloomberg and i-teams - governments supporting innovation

## A.5 Workshop: agenda (1 of 2)

### WP1 - Workshops for stock-taking of sustainable lifestyles in different European regions

February 1st

Time	Length	Session
1245	15 min	Registration – tea & coffees ( <b>Sign-in</b> )
1300	10 min (5)	Introduction by [A67] – Introduction of EU-InnovatE and presenters
1320	20 min (5)	Presentation [A5] <ul style="list-style-type: none"> <li>• 10-country survey focused on sustainable lifestyles and consumer sustainability innovation</li> </ul>
1345	60 min (5)	Group discussions on results and observations  45 min group discussion / 15 min presentation
1450	15 min	Coffee break
1505	20 min (5) min	Presentation [A22 and A72] <ul style="list-style-type: none"> <li>• Institutional factors and their influence on sustainable lifestyles and consumer sustainability innovation.</li> </ul>
1530	60 min (5)	Group discussions on results and observations  45 min group discussion / 15 min presentation
1635	5 – 10 min	Final remarks by [A67]

**Working Dinner – February 1<sup>st</sup>**

Madklubben Vesterbro

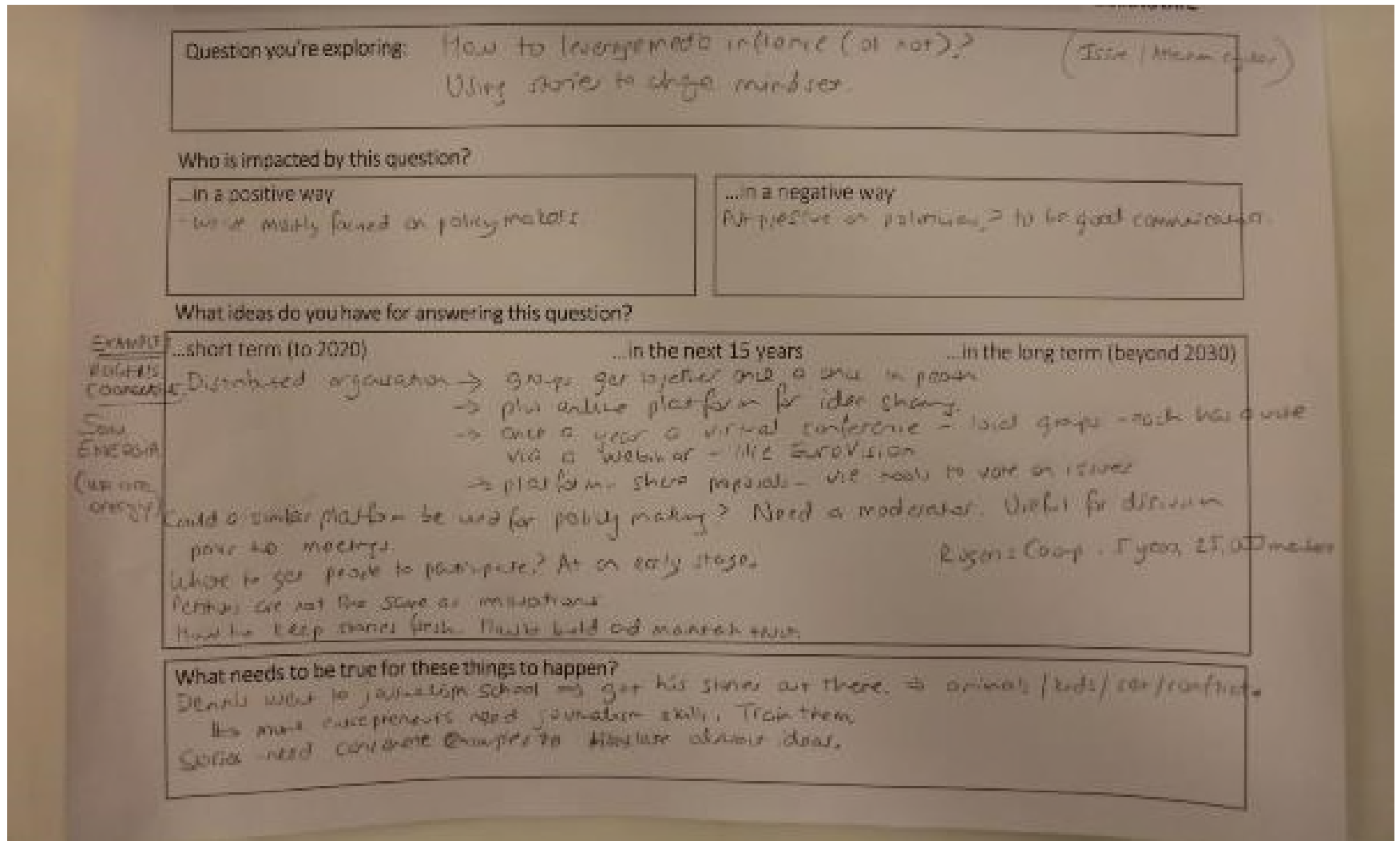
18.00 – 20.15

**WP6 - Workshop on Sustainable Lifestyles & User Innovation****February 2<sup>nd</sup>**

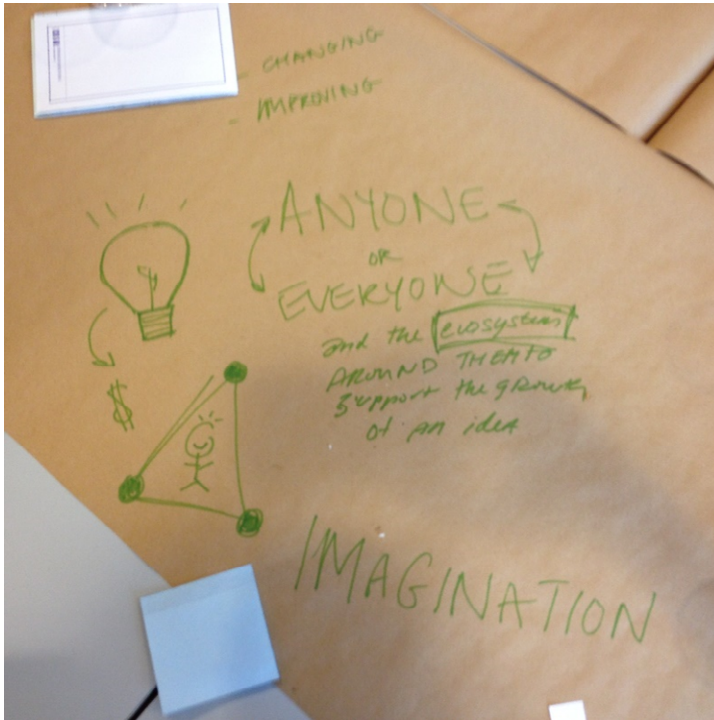
Time	Length	Session
08.45	30 min.	Registration – tea & coffees ( <b>Sign-in</b> )
09.00	5 min.	Introduction
09.05	30 min.	<b>Keynote: Where are we now – EU/national policy?</b> [PM278] – Former Minister for the Environment and Member of Parliament Presentation + Q&A
09.35	30 min.	<b>Venturing for sustainability: how corporates harness the power of entrepreneurs, and how policy can be an enabler</b>  [BL87] - Carnstone Presentation + Q&A
10.05	40 min.	<b>Zooming out: exploring the bigger picture pt1</b>
10.45	10 min.	<b>COFFEE BREAK</b>
10.55	80 min.	<b>Zooming out: exploring the bigger picture pt2</b>
12.15	60 min.	<b>LUNCH</b>
13.00	15 min.	<b>Prioritisation</b>
13.15	60 min.	<b>Getting practical – exploring your questions</b>
14.15	45 min.	<b>Presenting back</b>

<b>15.00</b>	15 min.	<b>COFFEE BREAK</b>
<b>15.15</b>	45 min.	<b>Co-creating a policy manifesto</b>
<b>16.00</b>	45 min.	<b>Recommendations &amp; reflections</b>
<b>16.45</b>		<b>Closing remarks</b>

**A.6 Workshop outputs: Example photo of completed template**



### A.7 Workshop: Example output photos





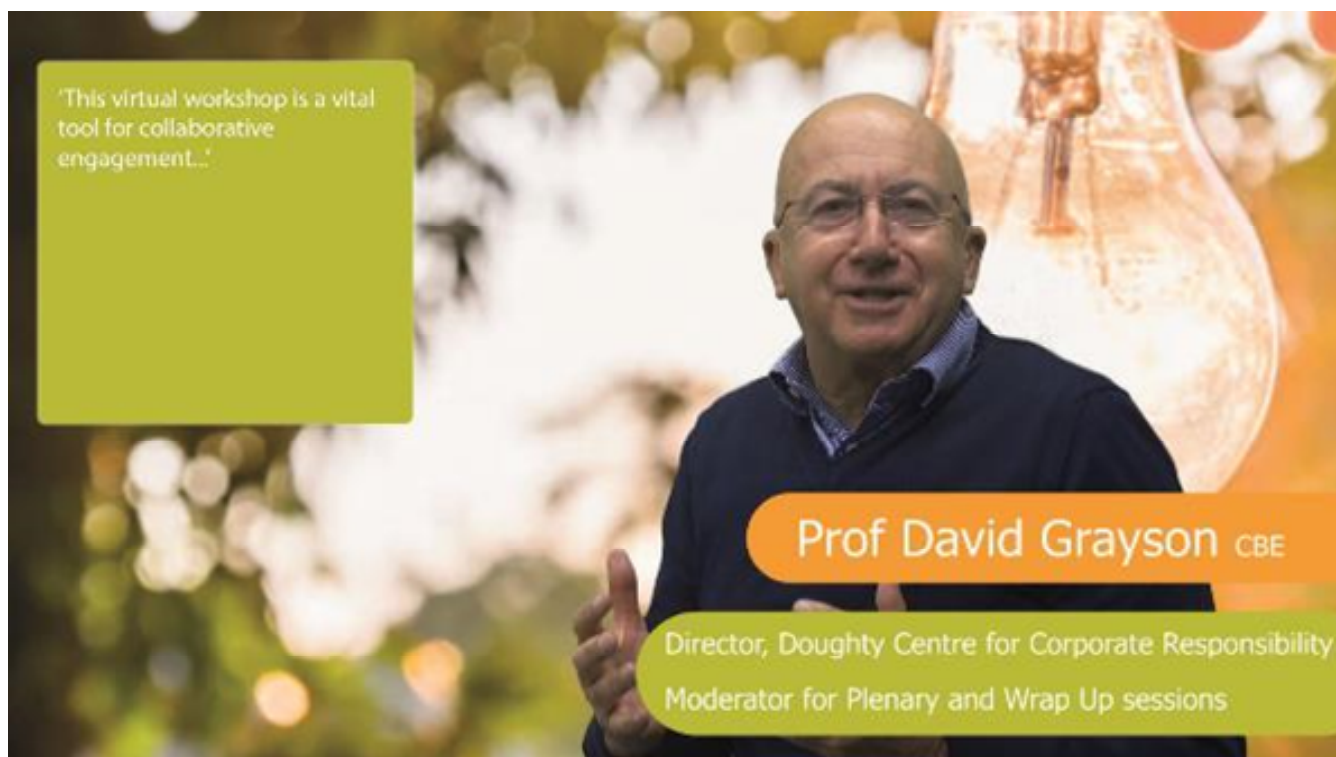
## A.8 Online conference: Example comments transcript for Education forum (1 of 6)

Replying To	Comment	User ID	Replies	Likes	Date Posted
	Hi everyone, thanks for joining the event. This session will start at 10.30am UK/11am Central Europe time (right after the Plenary at 10am UK /11am Europe).				
	In the meantime, please do watch the introductory video: <a href="https://www.youtube.com/watch?v=npjBHn9YbRI">https://www.youtube.com/watch?v=npjBHn9YbRI</a>				
0	And take Cranfield's pre-event survey here, if you haven't already: <a href="https://cranfielduniversity.eu.qualtrics.com/jfe/form/SV_OHTyFN62qI2STGt">https://cranfielduniversity.eu.qualtrics.com/jfe/form/SV_OHTyFN62qI2STGt</a>	262	1	0	2016-05-24-14-41-35
	Hello everyone and welcome to the Sustainability Innovation Exchange. Thanks for joining us.				
0	Education is of vital importance for encouraging individuals to trust that their actions and their creativity can lead to a sustainable future. How can education programmes develop the sustainable innovators of the future? What needs to be done at all levels of education?	71	0	1	2016-05-25-10-28-55
134	Folks, this pre-survey is not the same as the 1-page registration form you filled in! It's only 3 minutes long & is really extremely important to us! Would you mind filling it in if you haven't already, before proceeding with the conversation? Thanks! Hugh	96	0	0	2016-05-25-10-29-37
	Hello everyone and welcome to the Sustainability Innovation Exchange. Thanks for joining us.				
0	Education is of vital importance for encouraging individuals to trust that their actions and their creativity can lead to a sustainable future. How can education programmes develop the sustainable innovators of the future? What needs to be done at all levels of education?	71	1	3	2016-05-25-10-29-51
0	Good morning, .., and good morning to all...	192	0	0	2016-05-25-10-32-42

	Thank you very much for joining the discussion and of course thank you to all of our participants! Our guests and participants come from a range of sectors and roles, including commercial, government, not-for-profit and entrepreneurial. Between us we represent a diversity of perspectives on the topic of education and sustainability innovation.				
0	The way this hour will work is as follows: I have three broad questions to put to everyone that has joined our virtual discussion today. All please do jump in and contribute your views, ideas, experiences, examples and questions as we go along.	71	0	3	2016-05-25-10-32-46
349	I think half the problem is that sustainability is seen as a cost, certainly in business, rather than a valuable benefit. This needs to be redressed and the only way to do that is through education. I think there is a lot of misunderstanding!	211	0	1	2016-05-25-10-32-53
0	Good morning everyone	287	0	1	2016-05-25-10-33-20
0	Morning! Looking forward to this discussion.	231	0	0	2016-05-25-10-33-37
	Hi Simon and everyone else!				
0	I will prompt you a couple of times along the way to vote on some policy ideas which our research team has identified. As well as voting on these please add any comments and upload any pictures you have that you think might be helpful to the discussion. If you have any links or documents to post perhaps add these towards the end of the hour so that people can go away and look at these afterwards.	71	0	0	2016-05-25-10-33-42
0	Good morning everyone	284	0	0	2016-05-25-10-34-07
0	Please vote in the poll on the right hand side of your screen to let us know your views.	71	2	0	2016-05-25-10-34-12
397	It's not looking good for innovation right now, eek	231	0	1	2016-05-25-10-34-33

0	<p>A few initial thoughts to kick off with: I believe that we need a more holistic, philosophical view of the purpose that education systems will serve in the 21st century. Our traditional pyramid models based on narrow specialization may well be outdated. Finding solutions to sustainability challenges will require new sets of collective, creative problem-solving skills, for sure, as well as increasing students' ability to think reflectively and critically about deep changes happening in the world around them (globally or locally). But education should also strive to deepen students' understanding of their responsibilities as citizens and community members, and try to develop key shared values such as empathy, compassion and purpose. Not necessarily qualities that emerge through conventional education approaches today! But if successful, these will hopefully define the human side of innovation in the years to come.</p>	192	6	6	2016-05-25-10-34-47
397	<p>I wish we could tell which country votes are from! Ok everyone, here's our first question for discussion:</p>	231	0	0	2016-05-25-10-34-55
0	<p>How can education programmes encourage a sense of empowered positive action when it comes to sustainability?</p>	71	3	0	2016-05-25-10-34-55

## A.9 Online conference: Example still of promotional video (1 of 7)



## A.10 Face to face conference: example of electronic invitation



**"TRANSFORMING EUROPE THROUGH CITIZEN  
INNOVATION & SUSTAINABLE ENTREPRENEURSHIP"**

### **FINAL CONFERENCE**

**Atelier des Tanneurs, Brussels  
22 November, 2016**



**[Register for Free By November 18, 2016](#)**



The EU-Innovate project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 613194.

### CONTEXT

In the past three years, the [EU-InnovatE research project](#) has explored the emerging phenomenon of how user innovators, citizens and entrepreneurs are accelerating the transition towards more sustainable lifestyles and green economy in Europe – both through inspiring change in existing corporate innovation systems AND through creating new communities and organisations of their own.

On November 22<sup>nd</sup> in Brussels, we invite you to join us for the Final Conference of this groundbreaking initiative, with three main objectives in mind:

1. To engage you in a dynamic and critical debate around the headline findings, recommendations and implications emerging from our work;
2. To invite you to become a “Future Shaper” in a new movement to promote sustainable entrepreneurship in Europe; and
3. To make valuable connections with peers and pioneers who can support you in developing an entrepreneurial career or with social or environmental purpose at its heart.

### WHO SHOULD ATTEND & WHY?

Beyond the launch of our research findings, the November 22 conference will bring together various stakeholders to define the most effective pathways forward to bring user innovation and sustainable entrepreneurship from the margins to the mainstream.

Above all, we are prioritizing the people at the heart of our study: **user innovators, citizen innovators and sustainable entrepreneurs (both present and future)**. The final conference will enable you to meet fellow pioneers from across Europe with similar passion and ambition – and of course to interact with and inspire some of the key institutions which can support and promote your entrepreneurial journey.

We will also convene **public policy representatives**, with the promise of a deeper understanding of the new sustainable entrepreneurship paradigm in Europe and its future influence in more innovative, effective policy-making.

We will engage **senior voices from industry**, for whom open innovation for sustainability is a critical key to unlocking future growth and turbocharging current strategies, and **from the investment world**, for whom competitive financial returns allied with positive environmental and social impact are seen as increasingly valuable opportunities to explore.

Last but by no means least, we will welcome our colleagues from the worlds of **education and research** – both as the teachers of the next generation of sustainable entrepreneurs, and as the scientists who will carry the intellectual torches forward in this domain in the years to come.

## A.11 Face to face conference: agenda

### CONFERENCE PROGRAMME

<b>09:00 – 09:45</b>	<b>REGISTRATION &amp; COFFEE</b>
<b>09:45 – 10:00</b>	<p><b>WELCOME &amp; INTRODUCTION</b></p> <p>A brief introduction and context-setter which covers the conference agenda, room use, key logistics (+ venue safety information), and central objectives for the day.</p> <p>Presenter: Simon Pickard <i>WP8 Leader and Director International Programmes, ABIS</i></p>
<b>10:00 – 10:30</b>	<p><b>PLENARY SESSION: The Rise of Sustainable Entrepreneurship and Citizen Innovation</b></p> <p>The first public presentation of the headline findings, evidence and analysis from the EU-InnovatE Project – supported by a short video montage capturing perspectives and stories from participating companies.</p> <p>Presenter: Professor Frank-Martin Belz <i>Scientific Coordinator, EU-InnovatE and Chair of Corporate Sustainability, TUM School of Management</i></p>
<b>10:30 – 11:15</b>	<p><b>NETWORKING SESSION: The Power of Connections</b></p> <p>A collective exercise in which each participant identifies his or her main personal learning and action goals for the conference, and connects with others sharing similar aspirations.</p> <p>Facilitator: James Goodman <i>WP2 Leader, EU-InnovatE and Director of Futures, Forum for the Future</i></p>
<b>11:15 – 11:30</b>	<b>COFFEE BREAK</b>
<b>11:30 – 12:30</b>	<p><b>PLENARY SESSION: Shaping the Future</b></p> <p>Today's challenges represent tomorrow's opportunity for sustainable entrepreneurs and the collaborative networks &amp; platforms which support them. In this session, a number of business pioneers will share their perspectives on what they believe it will take to unlock the full potential of sustainable entrepreneurship and citizen innovation to drive the transition to a more sustainable Europe.</p> <p><i>Presenters will include senior figures from case companies in EU-InnovatE and its Future Shapers Network.</i></p>

<b>12:30 – 13:30</b>	<p><b>BUFFET LUNCH</b></p> <p>Participants will be able to take their lunch and circulate among a select number of display stands, which highlight the key findings of different Work Packages in the EU-InnovatE project. This will also give an opportunity to discuss informally with senior representatives from the consortium about the research undertaken.</p>
<b>13:30 – 14:00</b>	<p><b>KEYNOTE ADDRESS: Making the Difference as a European Entrepreneur</b></p> <p>Speaker: Madi Sharma <i>Member, European Economic &amp; Social Committee and Founder, Madi Group</i></p> <p>Madi Sharma is an award-winning entrepreneur who founded and runs the Madi Group, a group of international private sector &amp; not-for-profit companies, as well as NGOs. The philosophy of her group is to create innovative ideas tailored to local action which can achieve global impacts beneficial to a sustainable society.</p> <p>Beyond sharing insights about her own journey as a sustainable entrepreneur, Madi will draw on her experiences working in the European Economic &amp; Social Committee, and with European Commissioners and Parliamentarians, to suggest how this emerging phenomenon can drive mainstream change in Europe.</p>
<b>14:00 – 14:30</b>	<p><b>PLENARY SESSION: Creating the Conditions for Success</b></p> <p>This session will focus on the key blocks of the “life cycle of a sustainable entrepreneur” identified in the project: <b>education, networks, funding, impact, scaling up</b> and <b>open policy making</b>. Participants will be introduced to the 10 headline recommendations emerging from the project, as indicators of new approaches for public policy makers, investors and others to accelerate the development of sustainable entrepreneurship and citizen innovation in Europe.</p> <p>Presenters: <i>Lucia Reisch &amp; Kristian Roed Nielsen, Copenhagen Business School</i> <i>Hugh Wilson, Rosina Watson &amp; Christine Mera, Cranfield School of Management</i></p>
<b>14:30 – 14:45</b>	<p><b>COFFEE BREAK</b></p>
<b>14:45 – 16:15</b>	<p><b>INTERACTIVE SESSIONS: Unlocking the Potential of Sustainable Entrepreneurship and Citizen Innovation</b></p> <p>In this part of the programme, small “challenge groups” for participants will be tasked with developing a vision of an ideal system / range of solutions that could transform current practice within the different areas of the Sustainable Entrepreneur Life Cycle (whether at national / regional / city level, or through virtual communities).</p>



The “visioning” exercise will also challenge participants to identify excellent ideas or cases that could be scalable and accelerate the Sustainable Entrepreneurship & Citizen Innovation movement at European level, and then ultimately focus down on 2-3 concrete actions to propose.

**16:15 – 17:15**

**PLENARY SESSION: Inspiring Europe to Take the Lead**

In this final plenary, the “challenge groups” will present their work back to a select panel of EU representatives and stakeholders, who will in turn be invited to respond around the feasibility and materiality of new ideas for upscaling and innovation in sustainable entrepreneurship and citizen innovation.

*Respondents to be confirmed in early November.*

**17:15 – 17:30**

**CLOSING SESSION: Defining the Vision**

The Final Conference ends on a positive note, drawing together the headlines from the day’s dialogues and interactive sessions to outline a vision for the sustainable entrepreneurship and citizen innovation movement in 2017 – also serving as a “call to action” for those present to take on individual roles as champions going forward.

Presenters:

*James Goodman & Louise Armstrong, Forum for the Future*

**17:30 – 18:30**

**DRINKS RECEPTION**

An informal post-event gathering in which participants will also be invited to relocate their learning goal/conference goal contacts from the morning session, and to reflect on whether their goals for the day have been met.

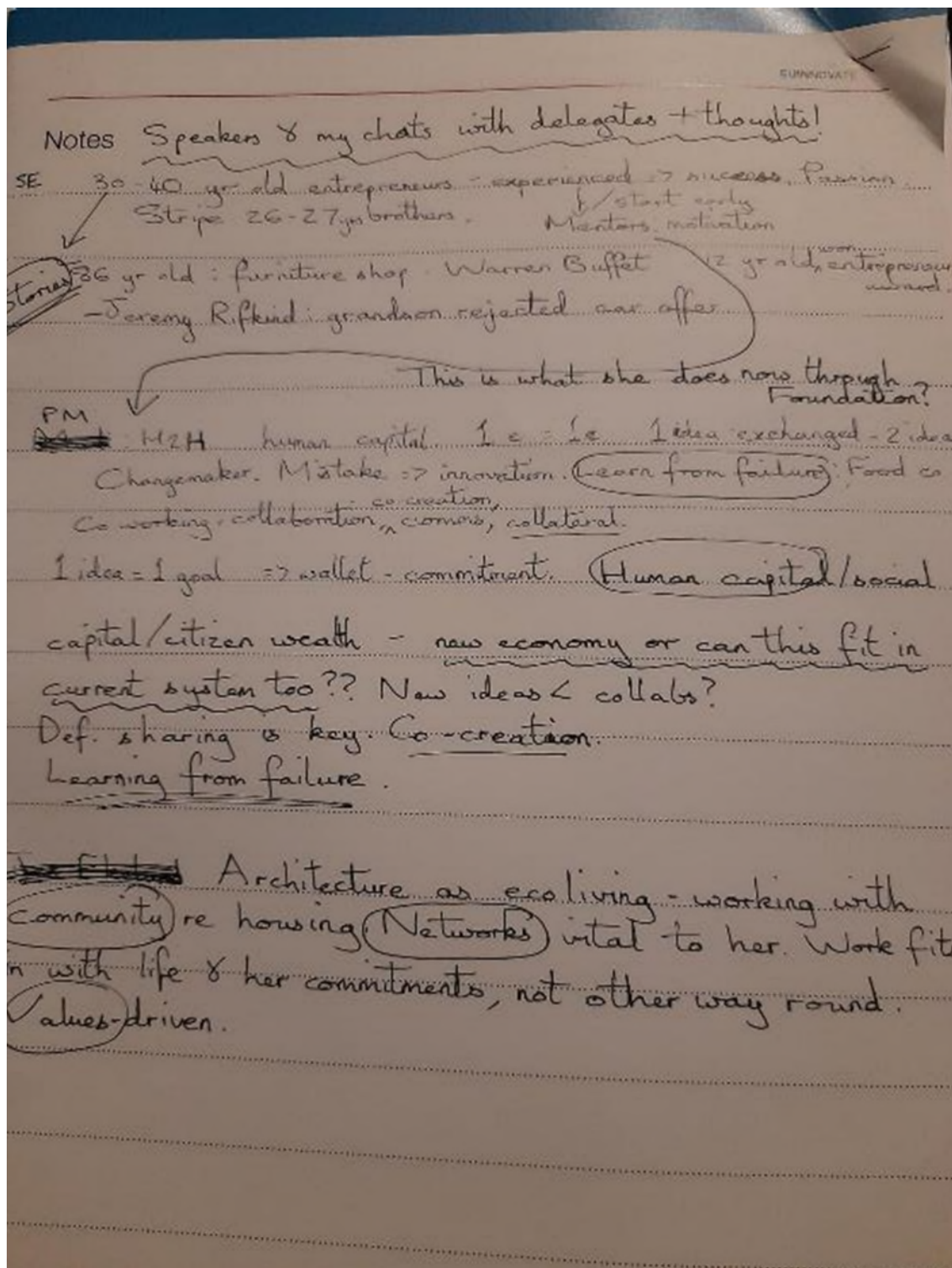
**VENUE, AGENDA & REGISTRATION**

The November 22 event will be held at the [Atelier des Tanneurs](#), the former Brussels “wine palace” which now serves as a social enterprise hub and bio-market for local organic food producers. To access directions and other supporting information, please visit the [EU-InnovatE Final Conference](#) website.

**Participation is free of charge**, and a limited number of partial travel subsidies (up to €200) are also available, with priority given to **young entrepreneurs and students**. Please indicate if you wish to be considered for one of these when completing the Eventbrite Registration Form.

As places are limited, we also encourage you to register for the conference before **12:00 CET on Friday, 18 November**. If you have any logistical questions or requests, please contact the ABIS conference team in Brussels directly via [marco.matrisciano@abis-global.org](mailto:marco.matrisciano@abis-global.org).

## A.12 Face to face conference: example of discussion notes



## A.13 EU Round table: example recommendation slide



# Policy Making for Sustainable Lifestyles & Green Economy in Europe to 2050

Policy Round Table, Brussels, 6 October 2016

**Presentation Pack**

 This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 633294

## Recommendation#4: Harness the Enterprise Europe Network for better education and learning resources

<b>What?</b>	A dedicated Topic in the H2020 2018-2019 Work Programme for Societal Challenge 6 to analyse sustainable / social entrepreneurs in the Enterprise Europe Network database, to augment the current database with new cases, and to translate findings into wide-ranging education and learning resources
<b>How?</b>	<ul style="list-style-type: none"> <li>• Make the case to DG Research Director for Open Innovation for inclusion in the next SC6 Work Programme. Either in the form of a Coordination Action, Research and Innovation Action, or Additional Action</li> <li>• Stipulate pan-EU analysis of the EEN database to identify common and distinctive characteristics of successful sustainable entrepreneurs and start-ups</li> <li>• Include explicit impact criteria in the Call for Proposals around the creation of open access / open source teaching materials and toolkits for any education provider seeking to promote sustainable or social entrepreneurship</li> <li>• Include specific measurable targets for grant recipients to identify and integrate new sustainable enterprise cases into the existing EEN database</li> </ul>

*The power of stories*

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