THEORETICAL APPROACHES TO SOCIAL INNOVATION

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A CRITICAL LITERATURE REVIEW

September 2014

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SI-DRIVE

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Editors: Jürgen Howaldt, Anna Butzin, Dmitri Domanski, Christoph Kaletka

Authors: Anna Butzin, Anna Davies, Dmitri Domanski, Steven Dhondt, Jürgen Howaldt, Christoph Kaletka, Alexander Kesselring, Ralf Kopp, Jeremy Millard, Peter Oeij, Dieter Rehfeld, Petra Schaper-Rinkel, Michael Schwarz, Anette Scoppetta, Petra Wagner-Luptacik, Matthias Weber

Lead partner: TU Dortmund

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Innovation and Management Studies

1 INTRODUCTION

Jürgen Howaldt (TUDO)

The theory of innovation has a long history dating back to the pioneering work of Schumpeter (2006) in the early 20th century. While much of the early theoretical work emphasised the socio-cultural dimensions of innovation (Kallen, 1932; and other relevant predecessors like Tarde, 1903 and Ogburn, 1966), this was gradually displaced in favour of more economic and technological perspectives. Recently, however, there has been a revival. The concept of social innovation is becoming increasingly evident in policy, scientific and public debates. There is a growing consensus among practitioners, policy makers and the research community that widespread social innovation is required to cope with the significant challenges that societies are facing now and in the future.

The momentum for this revival is being driven by new projects, initiatives, methods and efforts to establish innovation. The field is practice led. And, as Mulgan (2012) has outlined, while there are many theoretical foundations which help to conceptualise the field, there is not yet a consistent theoretical foundation of social innovation.

Against this background, the European Commission is funding a large scale research project called SI-DRIVE[1]. The main objectives of the project are (1) an integration of theories and research methodologies to advance understanding of SI, (2) a European and global mapping of SI, addressing different social, economic, cultural, historical and religious contexts in eight major world regions, and (3) feedback to and discussion with policy makers and practitioners on the basis of in-depth analysis and case studies in seven policy fields. An overarching research question is how social innovation relates to social change.[2] In order to provide a solid answer to this question, the project will contribute to the establishment and communication of a theoretical understanding of social innovation, as well as to methodologies, skills and tools enabling analysis and identification of, creation, testing, implementation and sustainability of social innovations.

This document, as the first thematic deliverable of SI-DRIVE, provides a multidisciplinary literature review of existing theoretical and conceptual strands on social innovation and its relationship to social change. Against the background of this review, multidisciplinary hypotheses, research foci and questions are formulated. These will inform especially the upcoming methodological preparations of the empirical mapping of social innovation cases.

A first sketch: Social innovation and social change

Though there is widespread recognition of the need for social innovation, there is no clear understanding of how social innovation leads to social change. Phenomena of social change are often looked at in connection mainly with technological innovation, but without paying sufficient attention to elements of social innovation. In many areas (including several of those policy fields studied by the SI-DRIVE project such as energy, mobility, health, etc.) the social and the technological dimensions of innovation are strongly inter-connected and can hardly be separated from each other in explaining social change. But there are also examples of social innovations which are largely independent from technological innovations and which can lead to social change by themselves. Overall, the technology-centred paradigm of explaining social change, shaped by the industrial society, seems outdated and needs to be replaced by a paradigm which assigns appropriate prominence to social innovation and which is able to describe and analyse social innovation as an autonomous field of research on the one hand, but also able to reflect the intimate links between the social and the technical sphere.

And even though social change is a key term of sociology, there is a multitude of definitions regarding its content. Following a generic definition resonating in several other definitions at later stages, social change can be understood as the plethora of changes in the institutional structure of a society in a given time frame (Heintz, 1958). Whether this structure as the subject of change is considered a value system from a structural functionalism perspective, a hierarchic shift from a perspective of conflict theory, of a change in social

[1] www.si-drive.eu

[2] The term social change is being used as an umbrella term in this report. Its relation to systemic change (addressing change in a defined social system), or transformative social change (implying opportunities to intentionally bring about change) is one of the objectives of SI-DRIVE.

relations, is both a matter of research interest and a corresponding theoretical approach (Jäger & Weinzierl, 2007). SI-DRIVE's predominant interest lies in a better understanding of social innovation as a mechanism of change at the micro- and meso-level on the one hand and its relation and contribution to social change on the macro-level[3], cumulatively described by Zapf as a *"process of change in the social structure of a society in its constitutive institutions, cultural patterns, associated social actions and conscious awareness"* (Zapf, 2003, p. 427).

Whereas – mainly based on Ogburn's theory – a specialised sociology of change has developed, social innovation as an analytical category is at best a secondary topic both in the classical and contemporary social theory approaches (Schäfers, 2002). Apart from a few exceptions (in particular Hochgerner, 2009; Mulgan, 2012; Harrison, 2012; Howaldt & Schwarz, 2010; Jessop et al., 2013), social sciences largely seem to refuse to label considerable parts of their research objects as social innovations (Rammert, 2010).

Against the background of the emergence of a new innovation paradigm, it is becoming ever more important to devote greater attention to social innovation as a mechanism of change residing at the micro and meso level. The reasons for this are obvious. First, the shortcomings of older models of social change and of an economically and technologically focused innovation model are becoming increasingly apparent when dealing with today's key social challenges. Second, the dissolving power of new forms of governance, participation and self-help, protest movements and new social practices – understood as necessary social innovations – are becoming ever more apparent.

In the context of the broad social debate surrounding sustainable development and necessary social transformation processes (WGBU, 2011; Geels & Schot, 2007), the question of the relationship between social innovation and social change is becoming even more pressing. It is, therefore, necessary to analyse the policy and socio-economic environment in order to answer key questions: ***Why, where and how does social innovation make a difference? What and who drives social innovation? What are the critical factors enabling social innovation to produce sustainable impact and to be scaled up? And how is social innovation shaped, enabled and restricted by institutional frames?***

Yet social innovation is still an uncodified field without a common set of theoretical underpinnings, datasets, or proven causal relationships (Howaldt & Schwarz, 2010; Franz et al., 2012). Although there is a growing body of literature on social innovation, the demand for categorizing the field is growing (Rüede & Lurtz, 2012). We currently lack a theoretically sound concept of social innovation beyond the different policy areas, research fields and regional perspectives (Howaldt & Schwarz, 2010; Moulaert et al., 2013, p. 4). There is a need for robust models for the creation, roll out and diffusion of social innovations, as well as more knowledge and understanding about how it relates to social change. A theoretically sound concept of SI is a precondition for the development of an integrated theory of socio-technological innovation in which social innovation is more than a mere requirement, side effect and result of technological innovation. Only by taking into account the unique properties and specifics of social innovation in different contexts, it is possible to comprehend the systemic connection and characteristics of social and technological innovation as driving forces in the overall processes of social change.

Theoretical building blocks of the literature review

As a first step starting from an innovation perspective, the relationship between social innovation and social change shall be approached by three building blocks under which diverse theoretical and conceptual approaches can be subsumed (see figure. 1). These building blocks are:

1. Theories of social change focusing on practice theory, institutionalisation and development theories;

2. Theoretical approaches in the different fields of social innovation research (social entrepreneurship, social economy, local and regional development, design thinking, development studies);

3. Innovations studies including science and technology studies (STS), management and business innovations.

[3] See also chapter 2.

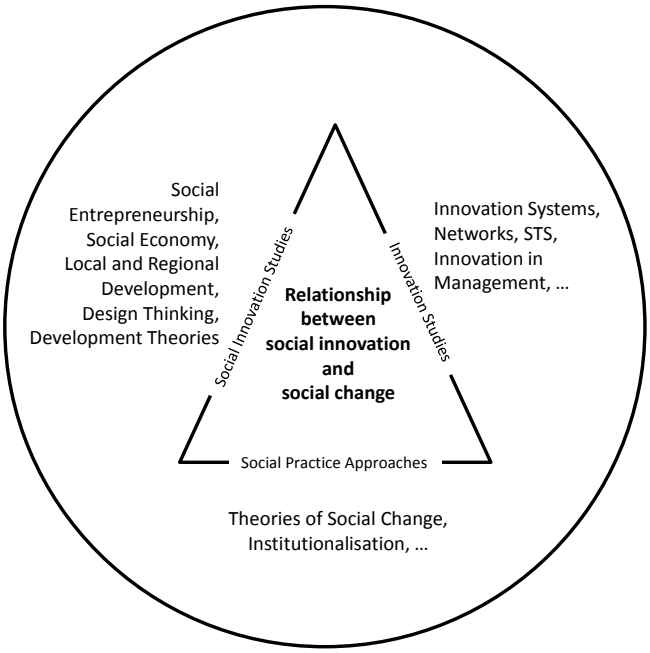

Figure 1: Theoretical building blocks of the literature review

The rationale for choosing these building blocks is based on the SI-DRIVE working definition of social innovation. According to the working definition, social innovation is a new combination of social practices in certain areas of action or social contexts with the goal of better satisfying or answering social needs and problems than is possible on the basis of existing practices. In this sense, social innovation can be *"interpreted as a process of collective creation in which the members of a certain collective unit learn, invent and lay out new rules for the social game of collaboration and of conflict or, in a word, a new social practice, and in this process they acquire the necessary cognitive, rational and organizational skills"* (Crozier & Friedberg, 1993, p. 19).

In this sense, social innovations encompass new practices (concepts, policy instruments, new forms of cooperation and organisation,) methods, processes and regulations that are developed and/or adopted by citizens, customers, politicians etc. in order to meet social demands and to resolve societal challenges[4] in a better way than existing practices.

The chosen theoretical and conceptual approaches have in common micro and meso scale perspectives which make them appropriate to theoretically and empirically study social innovation. This provides a better understanding of the multiplicity of drivers and initiatives engaged in the process of invention, creation, imitation and adoption of technological and social innovation. Here, it is about a modified understanding of what social behaviour is – compared to action, system and structural theories – and for this reason a modified understanding of 'social' as social practices. The latter can be found between routines and incalculability, closeness and openness for change and make a possible view on their reconfiguration as a core element of social innovation.

Accordingly, the literature review is structured as follows: in the building block on social theories of change, first a reflection is made on Gabriel Tarde's micro-sociological and 'poststructuralist' approach. Within this approach, the terms 'imitation', 'invention' and 'innovation' are central for the understanding of how social innovation contributes to social change (Tarde, 2009). Tarde's concept also plays a very important role in

[4] Such societal challenges predominantly become manifest on the policy level, with the largest influence potential of non-politicians in the agenda-setting phase. Following the European Commission (2013), the core societal challenges as of today are health, demographic change and wellbeing; food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy; secure, clean and efficient energy; smart, green and integrated transport; climate action, environment, resource efficiency and raw materials; Europe in a changing world - inclusive, innovative and reflective societies;secure societies - protecting freedom and security of Europe and its citizens (http://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges).

Latour's actor network theory that treats objects as part of social networks (Latour, 2009) (chapter 2). Second, diverse innovation concepts developed within development theories (reverse and frugal innovation) are discussed in a chapter on development theories (chapter 3).

The building block on social innovation theories reflects diverse perspectives on social innovation. It includes discussions on the social innovation life cycle, social entrepreneurship and the issue of scaling (chapter 4), the social economy, civil society and social movements as sources of innovation, the link between social innovation and local development (chapter 5), as well as a dedicated chapter on design thinking (chapter 6).

The building block on innovation studies includes two chapters. Chapter 7 provides state-of-the-art debates in innovation studies, including reflection on the systemic and networked nature of innovation, the knowledge intensity related to innovation development, as well as evolutionary and transition approaches. Chapter 8 focuses on innovation concepts in management, in particular including the issue of workplace innovation, open innovation and the quadruple helix concept.[5] This is followed by a conclusion discussing the future research fields derived from the chapters of the critical literature review.

Points of reference throughout the chapters

For each of the chapters, the *main objective* is to elaborate research foci, hypotheses and questions for further empirical work. This is done by addressing two points of reference. *Firstly*, all chapters strive to discuss the following set of questions:

- What is the relevance of the theoretical approaches discussed?
- What are the next steps in developing a typology of social innovations and a theoretical understanding of social innovation?
- What have we learned in relationship to:
    - a theoretically sound and comprehensive concept of social innovation and
    - the most appropriate conditions for introducing, implementing, diffusing and establishing social innovations?
    - the relationship to social change

Second, if appropriate, the chapters refer to key dimensions of social innovation research which affect the potential of social innovations, their scope, and their impact. These are:

1. Concepts and understanding of (social) innovation including the relationship to technology and business innovation;
2. Objectives and social demands, societal challenges and systemic changes that are addressed;
3. Drivers, barriers and governance (including the role of social entrepreneurship, networks, user involvement) of social change and development;
4. Social innovation cycle (prompts, proposal, prototypes, sustaining, scaling up, systemic change)[6];
5. Resources, capabilities and constraints including finance and regulations of the finance industries, human resources, empowerment.

[5] The critical literature review (CLR) refers to the state of the art of the debate about social innovation in due consideration of the technological and management innovation research. In this debate there is no political science or historical perspective to find. The critical literature review can carve out these deficits, but they are not deficits of the CRL itself.

[6] However, research in SI-DRIVE will not assume that any social innovation can lead to social change. Since the call sets the goal to ask for 'changing societies', the social change perspective of social innovations must be thoroughly addressed. But at the same time research will neither disregard the social need and the societal challenges perspectives, nor neglect potential impact that may result already from prompts, proposals or prototypes. The key issue is to identify *what makes a difference* (Westley & Antadze, 2010).

However, it shall be noticed that these key dimensions are starting points to guide the theoretical work. This implies that they are subject to refinement due the course of the project's theoretical work. The theoretical and empirical research of SI-DRIVE will be framed around these five key dimensions and connected to the cross-cutting issues as defined in the SI-DRIVE proposal (see table 1). As the key dimensions the cross-cutting themes are a starting point that might be refined due course of the project.

Key dimensions	*Cross-cutting themes*
Concepts and understanding of social innovation	Including the relationship to social change and technology; ICT
Objectives and social demands, societal challenges and systemic change addressed	Related to policy fields, including general objectives regarding gender, equality, diversity (e.g. EU2020 targets)
Social innovation cycle ('Open Book of Social Innovation')7	Role of innovation networks and drivers at each stage of the social innovation cycle, cultures of innovation
Drivers, barriers and governance of social innovation	Social entrepreneurship, networks, user involvement, demographic change, human resources, policy instruments
Resources, capabilities and constraints including finance and finance industries	Human resources, knowledge, scientific research, financial resources, legal conditions8, empowerment

Table 1: Key dimensions and cross-cutting themes

Work process

All chapters have been developed by authors who are experts in the relevant fields. To ensure quality and a common understanding, there have been two working meetings (in Dortmund [GER] and Hoofddorp [NL]) at which the authors discussed their chapters in order to receive feedback. In addition, there have been two review loops, at which the coordinators of the literature review as well as some authors provided written review statements about the chapters that have been integrated by the chapters' authors. Finally, the literature review was approved by the SI-DRIVE Quality Review Board.

[7] Murray et. al., 2010
[8] E.g. from labour law to prevention of large scale tax evasion and rules of stock exchange.

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THEORIES OF SOCIAL CHANGE

2 SOCIAL THEORY

Jürgen Howaldt (TUDO), Alexander Kesselring (ZSI), Ralf Kopp (TUDO), Michael Schwarz (TUDO)

2.1 INTRODUCTION

In light of the increasing importance of social innovation the literature review focuses on a theoretically sound concept of social innovation as a precondition for the development of an integrated theory of socio-technological innovation. This theoretical concept considers social innovation more than a mere appendage, side effect and result of technological innovation. Only by taking into account the unique properties and specifics of social innovation it will be possible to understand the systemic connection and interdependence of social and technological innovation processes and analyse the relationship between social innovation and social change.

Given the fact that social theory doesn't play an important role in social innovation research (Howaldt & Schwarz, 2010; Mulgan, 2012; Moulaert, Martinelli, Swyngedouw, & Gonzalez, 2013; European Commission, 2013), its possible contributions have to be explored. The scientific discussion on social innovation is polarised between an actor centred, individualistic, attitude orientated perspective on the one hand and an (implicit) structuralistic perspective on the other hand. Social innovations are either attributed to individualistic acts, or considered a deterministic result of external context (Cajaiba-Santana, 2013; European Commission, 2013).

The SI-DRIVE approach defines social innovation as a new combination[9] or figuration of *practices* in areas of social action, prompted by certain actors or constellations of actors with the goal of better coping with needs and problems than is possible by using existing practices. An innovation is therefore social to the extent that it varies social action, and is socially accepted and diffused in society (be it throughout society, larger parts of it, or only in certain societal sub-areas). Depending on circumstances of social change, interests, policies and power, social ideas as well as successfully implemented social innovations may be transformed and ultimately *institutionalised* as regular social practice or made routine.

If we define social innovation *"as a new combination or figuration of 'practices' (...) transformed and ultimately 'institutionalized' as regular social practice"* an integrated approach can be found in recent social theory with its focus on social practices and dynamics of change on the one hand and institutional theories on the other hand. In the conclusion of their paper analysing definitions of social innovation from various disciplines, Rüede and Lurtz (2012, p. 30) see high potential for future research in practice theory. And Cajaiba-Santana (2013) *"presents a new conceptual framework to investigate social innovation as a driver of social change"* (p. 1) by linking this approach to institutional theories. Against this background, especially these two approaches have to be explored.

It will be shown that the relation between social innovation and social change still is a quite marginalised topic in social theory approaches. Ogburn's concept, which has remained largely misinterpreted in a setting in which there was a one-sided focus on the sociology of technology, could build the basis for a comprehensive theory of innovation. Social practice theories on the one hand and institutional theories on the other hand provide developable potential with the central research question of SI-DRIVE in mind. Tarde's theory of imitation delivers important insights for exploring the drivers of social change. This recourse enables fruitful links to social practice theory as well as to approaches of institutionalisation processes.

Referring to the 'practice turn' in the field of social sciences (Schatzki, Knorr-Cetina & Savigny, 2001; Reckwitz, 2003), practice theories are an important component of a theory of social innovation (Howaldt & Schwarz, 2010, p. 53f.). In this sense, social innovation can *be "interpreted as a process of collective creation in which the members of a certain collective unit learn, invent and lay out new rules for the social game of collaboration and of conflict or, in a word, a new social practice, and in this process they acquire the necessary cognitive, rational and organizational skills"* (Crozier & Friedberg, 1993, p. 19). Social innovations encompass new practices (concepts, policy instruments, new forms of cooperation and organisation) methods, processes and regulations that are

[9] The term relates to the Schumpeterian terminology defining innovations as *"new combinations of production factors"* (Howaldt & Schwarz, 2010; Hochgerner, 2012).

developed and/or adopted by citizens, customers, politicians etc. in order to meet social demands and to resolve societal challenges in a better way than existing practices.

This perspective on social innovation enables us to better understand the multiplicity of drivers and initiatives engaged in the process of invention, creation, imitation and adopting technical and social innovation. What we are talking about here is – in comparison to action, system and structural theories – a modified understanding of what social behaviour is and, for this reason, also of the 'social' as social practices (Shove, Pantzar & Watson, 2012). These can be found between routines and incalculability, closeness and openness for change. They open up a perspective on their reconfiguration as a core element of social innovation.

In this perspective, it becomes more important to devote greater attention to social innovation as a mechanism of change residing at the micro and meso level. A very important theoretical point of reference is Gabriel Tarde's micro-sociological and poststructuralist approach. Within this approach, the terms 'imitation', 'invention' and 'innovation' are central for the understanding of how social innovation contributes to systemic social change (Tarde, 2009a). Tarde's concept also plays a very important role in Latour's actor-network theory that treats objects as parts of social networks (Latour, 2009). This opens up a new integrative perspective on the relationship between technological and social innovation.

Social innovation is consequently the establishment of a new institution guiding new forms of social practice, often coinciding with the disruption of existing institutions. Institutions are rule systems which reproduce social practices (relatively) independent from individual persons, time and space (Giddens, 1984). The term institution thus denotes the long-term stability of a social practice. With Giddens we can say that institutions as structural elements enable and restrict social practices. Institutions are reproduced by conform behaviour often in the form of non-questioned routines and may be challenged by non-conform behaviour. Institutions usually are connected to mechanisms which either reward conform behaviour or sanction non-conform behaviour. Berger and Luckmann (1980) emphasised the fact that social practices become institutions when passed from one generation to the next in the process of socialisation. What once may have been a result of power struggle or negotiation and consensus making becomes unquestioned and in its concrete history intransparent routine behaviour. It is clear that a social practice does not become an institution from one day to the other. There must be a *process of institutionalisation* which comprises different 'layers' and may be expressed in different 'degrees' of institutionalisation. Institutions are not an end-state – they still rely on reproduction, they may 'silently' change or they may be challenged by individuals and groups. And finally, institutionalisation and de-institutionalisation are parallel processes – new social practices relate to existing social practices. Newly institutionalised practices may challenge and finally substitute existing institutionalised practices. Institutionalisation and de-institutionalisation are therefore key concepts to describe the dynamics of social change.

Practice theory approaches and especially Tarde's concept of imitation provide important insights for analysing the processes of institutionalisation and how practices are created and institutionalised.

2.2 STATE OF THE ART OF SOCIAL INNOVATION AND SOCIAL CHANGE

In order to target the overall goals of the project it is imperative both theoretically and in practice to comprehend how social innovation relates to social change, to innovation and – because of its significant societal impact – to technology in general, to social needs and to political intervention.

While culminating social and economic problems identified in public discourse are increasingly prompting a call for extensive social innovation, the relationship between social innovation and social change remains a largely under-explored area in the social sciences as well as in governmental innovation policies. Although, as socio-political or reforming concept, *"social innovation existed long before that of technological innovation"* (Godin, 2012, p. 6f.), theoretical elaborations of this concept have started only recently. Phenomena of social change are consistently looked at in connection with technological innovation in techno-sociology and technical research in the prevailing paradigm of a social-technical system, but not from the perspective of an independent type of innovation that can be distinguished from technological innovations. This is inadequate in the light of the declining functionality of the technology-oriented paradigm shaped by the industrial society.

Theories of social change have been at the core of sociology since the early days of the discipline. So far, however, no consistent and paradigmatic theory has emerged. In particular, theory has difficulties with social

change which is not continuous or linear (Weymann, 1998, p. 17). Insofar as sociological theories deal with processes of change, they do so almost universally from the perspective of the reproduction, but not the transformation of social order. Social change in the sense of fundamental transformations at macro level, which sweep over us as mega-trends, or as a sequence of phases separated by (epochal) upheavals, belongs to the field of sociological diagnoses of the times.

Whereas – based mainly on Ogburn's theory – a specialised sociology of change has emerged (Schäfers, 2002) with few exceptions social innovation as an analytical category is at best a secondary topic both in the classical and contemporary social theory approaches and concepts of social differentiation and social integration, social order and social development, modernisation and transformation. Apart from few exceptions, the social sciences largely seem to refuse to *"present and list as social innovations the relevant social changes"* (Rammert, 2010, p. 26), which they have discovered and studied. This is all the more astonishing given that Ogburn – *"often named as the first sociologist concerned with social innovation"* (Rüede & Lurtz, 2012, p. 14) - not only makes 'cultural lag' – the difference in the time it takes for the comparatively 'slow' non-material culture to catch up with the faster-developing material culture – his starting point and systematically differentiates between technological and social innovations (and inventions) as critical factors of social change. He also emphasises that the use of the term 'inventions' is not restricted to technological inventions but also includes social inventions such as the League of Nations. *"Invention is defined as a combination of existing and known elements of culture, material and/or non-material, or a modification of one to form a new one. […] By inventions we do not mean only the basic or important inventions, but the minor ones and the incremental improvements. Inventions, then, are the evidence on which we base our observations of social evolution"* (Ogburn, 1969, p. 56ff.). Thus Ogburn is convinced that in the interplay of invention, accumulation, exchange and adaptation he has discovered the basic elements of 'cultural development' (p. 56) and hence – like Darwin for biological evolution – has developed a model to explain social evolution.

In the following, the debate mainly focuses on the question whether social innovations are a prerequisite for, a concomitant phenomenon with, or consequence of technological innovations. Here, Ogburn is wrongly made the chief advocate of a technological interpretation of social change (Howaldt et al., 2013). Starting from an interrelationship between *"material"* and *"non-material elements of culture", "innovations in the non-material field"* are being assigned the character of *"secondary changes"* in the sense of an *"adaptation to a change in the material field",* which as *an "invention in the field of technology or a discovery in applied science"* has an extraordinarily high coefficient of effect and therefore *results "with great likelihood in changes in other cultural fields"* or even in the *"formation of completely new social institutions"* (Ogburn, 1969, p. 57-67). In this interpretation, social change is understood as a process of diffusion of innovations and hence as the imitation or adoption of a (technological or social) invention by others or as an emergent innovation process where social innovations are primarily ascribed the function of a (delayed) adaptation in the sense of a 'cultural lag' (p. 64).

At the same time, it is overlooked that in his later work Ogburn referred to an important misunderstanding of his concept. In an essay published in 1957, he writes: *"In most of the examples I gave at that time, the starting point was a technological change or a scientific discovery, and the lagging, adaptive cultural element generally was a social organisation or an ideology. These examples led some researchers to think the cultural lag theory was a technological interpretation of history. Yet when the cultural lag theory was published, I pointed out that the independent variable could just as well be an ideology or other non-technological variable […]. So the fact that the technological changes always came first was simply due to the fact that at a particular point in time, only certain observations were available; but it is not an inherent part of the theory*" (p. 139). Yet precisely these aspects of Ogburn's conception, which could have formed the basis for a comprehensive theory of innovation, remained largely ignored in a setting in which there was a one-sided focus on the sociology of technology. Like Ogburn also Drucker (1957) drew attention to social innovation as a special type of innovation and emphasised that *"we need social innovation more than we need technological innovation"* (p. 45). In this context he makes a difference between reform and revolution on the one hand and social innovation on the other hand and defines it in a highly topical manner: *"it aims at using traditional values, beliefs and habits for new achievements, or to attain old goals in new, better ways that will change habits and beliefs"* (p. 45).

Despite such incentives, a social-theoretical foundation of the concept is still pending to a large extent. In his study of the history and genealogy of social innovation as a category, limited to England, France and the United States, Godin (2012) comes to the conclusion: *"it is really in the last ten years or so that social innovation search began to be studied as and theorized about - however with few if any references to a theory of change, which is relegated to context or background"* (p. 35). In the German-speaking world, it is above all Wolfgang Zapf, who

dabbles in a modernisation theoretical conception of social innovation. He defines social innovation similar to Ogburn and Drucker as *"new ways to achieve objectives (...), which change the direction of social change, solve problems better than earlier practices, and are therefore worthy to be imitated and institutionalized"* (Zapf, 1989, p. 177). Here the analytically central terms practices, imitation and institutionalisation appear already programmatically. However, although often cited, this approach is not been systematically pursued (Howaldt & Schwarz, 2010, p. 9f.). Without further social theoretical foundation the concept of social innovation only remains as a normative byproduct of technological innovations or an 'ideological' concept (Godin, 2012, p. 43).

Against the background of the emergence of a new innovation paradigm, it becomes more important to devote greater attention to social innovation as a mechanism of change residing at the micro and meso level. The reasons for this are obvious. Firstly, the shortcomings of older models of social change and of an economically and technologically focused innovation model become increasingly apparent when dealing with the key social challenges. Secondly, new forms of governance and social self-management, of the *"criticism that actually takes place in society"* (Vobruba, 2013, p. 160), of protest movements that aim to shape society and new social practices in social life and related governance – understood as necessary social innovations – are evidently becoming increasingly established. In the context of the broad international social debate surrounding sustainable development and necessary social transformation processes, the question of the relationship between social innovations and social change arises again: how can processes of social change be initiated and institutionalized which go beyond the illusion of centralist management concepts to link social innovations from the mainstream of society with the intended social transformation processes?

2.3 SOCIAL PRACTICE THEORY (SPT)

With social innovations, the new does not manifest itself in the medium of technological artefacts, but at the level of social practices. If it is accepted that the invention and diffusion of the steam engine, the computer or the smartphone should be regarded differently from the invention and social spread of a national system of healthcare provision, the concept of corporate social responsibility (CSR) or a system of micro financing, then it stands to reason that there is an intrinsic difference between technological and social innovations.

Under this perspective, a social innovation is a new combination and/or new configuration of social practices in certain areas of action or social contexts prompted by certain actors or constellations of actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices. An innovation is therefore social to the extent that it, conveyed by the market or 'non/without profit', is socially accepted and diffused widely throughout society or in certain societal sub-areas, transformed depending on circumstances and ultimately institutionalised as new social practice or made routine. As with every other innovation, 'new' does not necessarily mean 'good' but in this case is 'socially desirable' in an extensive and normative sense. According to the actors' practical rationale, social attributions for social innovations are generally uncertain (Howaldt & Schwarz, 2010, p. 26).

Referring to the socio-philosophically inspired 'practice turn' in the field of social science (Schatzki et al., 2001; Reckwitz, 2003), social practice theories (SPT) including, for different contexts, the works of Bourdieu (2000), Giddens (1995) and Latour (2010), overcome the reduction of the methodological individualism and actor centred as well as structuralist approaches. With their focus on social practices, their reproduction and change as the central element of sociality they allow to identify the social dynamics of processes of change. This modified understanding of the social as social practices opens the view on their reconfiguration (Elias) as a core element of social innovation and social change (Shove et al., 2012).

Practice theories overcome the dichotomies structure/action, subject/object, rule/application, society/individual and so arbitrarily define micro/macro levels or sociological *"reality rules"* (Latour & Lépinay, 2010, p. 114), which hide the whole practice *"of formatting, coordination, standardization, compatibilization"* (p. 85) of the social configurations *"covered from the inside"* (p. 114).

Instead, they focus on social practices as the central theoretical and analytical category and last unit of sociality. The social world is therefore composed of very specifically nameable, individual, although interdependent practices (in plural): practices of governance, practices of organising, practices of partnership, practices of negotiations, practices of self etc. (Reckwitz, 2003), practices of comfort, cleanliness and convenience (Shove, 2003), practices of working and nurturing (Hargraves et al., 2011, 2013), practices of consumption (Brand, 2010).

Here, the social is not to seek in the guidance of rules or in communication but in the collectivity from behaviours that are held together by specific 'practical skills': practices thus form an emergent level of the social, which is however not situated 'in the environment' of their physical mental carrier (Reckwitz, 2003). Social practices are always present, are reproduced and changed by acting subjects, by creating anew what already exists in the continuity of practice, again and again. Social practices themselves are repeated and newly-created regularities, are public and thus observable (Schmidt, 2012). Social practices are at the same time carried out and performed (Schäfer 2013; Reckwitz, 2003; Shove et al., 2012).

- *Practices* are generic operations whose repetition creates sociality, stability and instability, organisation and reconfiguration. Thus, practices are triggers for processes of social change.

- Linked practices, understood as social mechanisms with structuring effects, are called *forms of practice*. Individuality and society change in conjunction with prevalent forms of practice.

- *Practice* in its widest sense is a dynamic process constituted by singular practices and forms of practice, bundles and practice assemblages or *"Life forms"* (Jaeggi, 2013).

- Recursive relations between practices, incorporated and objective sociality, action and structure are the *subject of practice theory*.

Primary practice theories focus so far on stability, reproduction and rigidity of the social. Accordingly, routine and incorporated knowledge often are at the heart of the definition of practice. Social practices are stabilised, modified or replaced when the link between these elements is made, maintained, altered or broken. The key elements of social practices are: physicality, in the sense of incorporated sociality and physically carried out practices, materiality, in the sense of the meaning of artifacts, things, technologies in and for social practices, competencies, in the sense of know-how, practical knowledge, background knowledge, understanding. The perspective on the dynamics of social practice (Shove et al., 2012) focuses on the changing relations of its elements. Novelty can go out of each of these elements. New practices thus arise from the combination of new and existing elements.

Practices are connected through repetition. They build a repertoire of repetitive and repeatable formations (Schäfer, 2013). Repetition, again, is in itself a specific form of change. A repeated social practice never stays the same. Repetition, change and renewal are inextricably linked, or in other words: the ambivalence of repetition/imitation (Waldenfels, 2001) is the key to analysing reproduction *and* innovation of social practices.

In this respect, a practical-theoretical concept of social innovation can benefit fundamentally from the social theory of Gabriel Tarde. For Tarde, in the social everything occurs through invention and imitation (Tarde 2009; see chapter 2.3.1 below). To understand the importance of the view, we compare SPT to another dominant view on social change, the multi-level-perspective-approach (MLP).

While the MLP is focusing on transitions in regimes, in SPT transitions in practice are the ultimate unit of analysis. In their comparison of the analytical scope and range of both approaches Hargraves et al. (2013) underline that the *"multilevel perspective and social practice theory have emerged as competing approaches for understanding the complexity of sociotechnological change"* (p. 402), but that MLP can say nothing about the dynamics of social practices and how they change (Hargraves et al., 2011, p. 5). *"The MLP is not designed to understand the dynamics of social practice"* (ibid., p. 18). Insofar, SPT with its horizontal regime and system-cutting perspective exceeds MLP analytically. While Hargraves et al., with reference to Shove's suggestion from 2003, are still interested in connecting regimes and practices, Shove et al. (2012) strengthen the theoretical perspective on the *"Dynamics of Social Practice"*, on *"Everyday Life and how it Changes"* to an original systematic socialtheoretical framework (p. 10).

With recourse to Reckwitz according to Shove et al. (2012), social practices are formed, changed or replaced by new practices by making, sustaining, changing or breaking the link between their elements (p. 7). While the significance of artifacts and technologies is the core area of innovation studies, and a difference is usually made between innovation, development and diffusion, the SPT approach allows to carve out the dynamic

[1010] Theodore Schatzki comments about this contribution: *„This remarkable Book provides the best available analysis- theoretical and empirically illuminating –of the dynamics of social life construed as a field of practices and inaugurates the needed process of developing practice oriented public policy*" (Shove et.al., 2012, reverse side).

relation between producers and users in building and stabilizing new arrangements as well as the embeddedness of innovations in social practices. Novelty can start from each of the elements, not only from the material dimension (p. 31). Innovations of social practices can be understood – also in terms of a methodological strategy – as processes of connecting the new with already existing elements (p. 15). Practices change through transformative effects of adoption and avoidance by practitioners (p. 66). This leads to *"multiple and varied cycles of change, simultaneously shaping the lives of practices and being shaped by them"* (p. 77).

The examination of the constitutional elements of practices, of bundles and complexes of practices allows realising processes of transformation. By describing stability and mobility of the elements one can show how contours of practices develop and change. In a sense, each new combination of elements and practices is an emergent result of previous practices. The subject matter of SPT is the relational interdependency between incorporated sociality, social practices and objectified sociality respectively the practices generating relations. Systems of classes, power, states and economies are constituted by nothing else than the repetitive performance of practices. Transformative social change refers to the reconfiguration of practices from which sociality arises, and therefore to social innovations. In this perspective social change is not the result of an evolutionary process but a reaction in the shape of processes of reflexive social learning towards existing ways of life and forms of practices becoming obsolete (Jaeggi, 2013).

Shove et al. (2010) emphasise why a perspective on transformative social change, which in terms of the predominant paradigm of regulation and its consolidating theories of change *"thought to depend upon values and attitudes, which are believed to drive the kinds of behavior that individuals chose to adopt"* (p. 1274), is out of touch with reality and managing change. Instead of influencing individual behaviour and action, the key lever for a policy informed by practice theory is changing social practices and stimulating social innovations based on continuous new adaptation and configuration anchored in social practices themselves, which means real experiments with the participation of heterogeneous actors understood as carriers of social practices and in the context of an unequally self-organised co-evolutionary process (Shove, 2010; Shove et al., 2012, p. 162ff.).

Warde (2005) had already emphasises the analytical potential of practice theories in the field of consumption, which *"still lacks theoretical consolidation"* (p. 131*): „Consumption occurs within and for sake of practices"* (p. 145). *"The approach offers a distinctive perspective, attending less to individual choices and more to the collective development of modes of appropriate conduct in everyday life. (…) From this angle the concept of 'the consumer', a figure who has bewitched political and social scientists as well as economists, evaporates. Instead the key focal points become the organization of practice and the moments of consumption enjoined."* (p. 146)

"Based on an empirical case study on the German 'Agrarwende' politics", also Brand (2010) *"contends that practice theoretical approaches provide a better understanding of these complex interdependencies"* (p. 217) in connection with sustainable consumption. *"The benefits of this approach (…) are most evident in its ability to identify the systematic links of social, economic, technical and cultural development involved in the emergence, stabilization and change of social practices. The approach underlines the fact that a perspective centred on individual consumption decisions – and the cognitions, attitudes, motives and emotions involved therein – fails to get an adequate grasp on opportunities and problems of changing consumption patterns"* (p. 231). Brand identifies limitations in *"the analytical emphasis on routinized everyday practices" and advocates "linking practice approaches with other bodies of social sustainability research"* (p. 232), namely institutional, chain and network-*approaches "if they are to live up their promise of being able to identify opportunities for change"* (p. 232). In this context *"the phenomenon of global social innovation", to be studied in "new ways", plays a large role too. „A new agenda for social science in the study of global social innovations (…) will require both a new epistemology and new methods of inquiry (…) fashioning a science for sustainable development"* (Cooperrider & Pasmore, 1991).

In a further work, Brand (2011) is dedicated to the potential of practical-theoretical approaches in connection with processes of social and ecological transformations. He sees their methodological strength *"in the detailed analysis of the formation, stabilization and changing of social practices in the texture of specific fields of practices. The ecological transformation of such formations of practices, whether in the area of food, energy, living or mobility, in the area of land or waterbodies regulatory practice, constitutes an ideal field of application in practice-theoretical approaches."* (p. 195)

Even if power and norms in practice theoretical approaches are different conceptionalised, they are conceptually and analytically not in the centre of practice theories. They are not designed as substance or

resource, but treated as properties of the connection between practices or as unstable relations. Practice is not understood as based on power or norms, but vice versa. Power and norms are practice-immanent, recursively constituted, unstable dimensions (Schäfer, 2013, p. 358ff.). Which role power plays in the enforcement of, the participation in or the social rewards of practices, is only to recognise in its effects. Power is not universal, but consists of heterogeneous relations.

2.3.1 The relevance of Gabriel Tarde' social theory

Recourse to Tarde, the long forgotten early exponent of an integrated sociological theory of innovation, is helpful in gaining a better theoretical understanding of the relationship between social innovations and social change. For Tarde, social macrophenomena such as social structures, systems and social change are *"easy to describe, but hard to explain, because the true complexity resides in the microphenomena"* (Gilgenmann, 2010, p. 2). His achievement consists in explaining social change 'from the bottom up', and not objectivistically, like Durkheim, 'from the top down', in terms of social facts and structures (p. 7). Tarde's contribution to the micro-foundation of a sociology of innovation can be used to assist in developing a concept of social innovation as a social mechanism of change residing at the micro and meso level. This seems all the more necessary given that Tarde's social theory – with a view to its implications and potentials for the analysis of innovation – has not been systematically explored until now.

Tarde's theory allows us to widen a perspective which was narrowed to economic and technological innovations by Schumpeter, and after him by the sociology of technology, to include the wide variety of social innovations. At the same time, this reveals the blind spots of an economically narrow view. Because Tarde places the laws of the practices of imitation at the centre of his theory of social development, the associated microfoundation of social phenomena provides vital input into an integrative theory of innovation. It enables us to discover how social phenomena, conditions and constructs come into being and transform. The key to this is to meticulously trace social inventions and innovations as well as the associated social practices of their imitation.

This character of Tarde's social theory, referring strongly to the social prerequisites for invention and imitation, is also underlined by the fact that unlike Schumpeter, for whom the innovator in the social figure of the entrepreneur is the focus of interest, for Tarde it is inventions which are understood to be the central 'driver' of social development. For Tarde (2009a), there are the many small inventions and *ideas "which were difficult or easy to arrive at and mostly went unnoticed at the time of their arising, which therefore are usually almost exclusively inglorious and nameless"* (p. 26).

These countless and nameless inventions and discoveries change society and its practices through equally countless acts of imitation, and only as a result do they become a true social phenomenon. *"In the realm of the social, everything takes place as invention and imitation, with imitation forming the rivers and inventions the mountains"* (p. 27). For Tarde, imitation is the central mechanism of social reproduction and of social change. *"All similarities of social origin that belong to the social world are the fruits of some kind of imitation, be it the imitation of customs or fashions through sympathy or obedience, instruction or education, naïve or carefully considered imitation"* (p. 38). Since imitation always involves variation as well, imitations simultaneously transform innovations into social structures and practices. Added to this are individual initiatives and rebellions against prevailing morals, customs, rules – interruptions or crossings of imitation streams – which are transferred and imitated from person to person, leading to social innovations.

Rather than constantly producing new individual inventions, it seems more meaningful to creatively reconfigure the potentials of existing inventions through social practice. *"The qualities that in any age and in any land make a man superior are those which make him better able to understand the discoveries already made and exploit the inventions already devised"* (Tarde, 2009a, p. 251). In this context, the wealth of a nation for Tarde is rooted in its ability to *"use the knowledge of its time in a particular way"* (p. 254). If, like Tarde, one seeks to explain a situation from the imitation practices of people, the specific cultural frameworks need to be decoded.

Tarde shifts the perspective from inventions to social practices of imitation. The key question in the context of diffusion is how new social practices come into being from the imitation of social practices. The concept of imitation underpins an understanding of innovation which focuses on social practices. Only these can be imitated. Practices of organisation, consumption, production and so forth become the central object of Tarde's conception of imitation. This includes the manufacturing and consumption of technological artefacts. The imitative spread of social ideas or initiatives tends to combine with other inventions to form increasingly

complex and more widely acting social innovations. Imitation always comprises variation as well, and to this extent imitations constantly bring innovations into social structures and constructs.

If change must be considered a contingent phenomenon which resists any general (macro) theory because in every reproducing action and in the principle dependence of social structures on negotiation (Joas, 1992, p. 60), there is at the same time the possibility of change and hence a gigantic field of possible transformations, then the benefit of a microfoundation of the social realm consists precisely in decoding the phenomena which shed light on the diverse processes of order and change in the social world. These are the many small social inventions, ideas, initiatives and innovations via which social change and the tension between diversity and cohesion are recursively constituted.

Thus social innovations can be understood as a *"starting point for creating social dynamics behind technological innovations"* (BEPA, 2010, p. 8), as change that arises as a result of constant changes by inventive and imitating actors (Tarde, 2009b, p. 67). With Tarde, social change can be traced back to the effects of small and micro units. While the macro perspective looks at how social facts and constructs impact on social life – that is, it refers to the power of structures, institutions etc. to shape actions -, the microfoundation of the social realm focuses on the *"law of their formation",* and reveals how structures are formed and transformed. The key to understanding lies in social innovations, which spread through society as a result of imitation practices and bring about social change, i.e. a *"process of change in the social structure of a society in its constitutive institutions, cultural patterns, associated social actions and conscious awareness"* (Zapf, 2003, p. 427). These are non-teleological, highly contingent processes.

Tarde devises and pursues an analytical agenda that makes social innovations the starting point for understanding social conditions and how they change. Accordingly, *"the real causes of change consist of a chain of certainly very numerous ideas, which however are different and discontinuous, yet they are connected together by even far more numerous acts of imitation, for which they serve as a model"* (Tarde, 2009a, p. 26). Social imitation is therefore kept in motion by innovation (Keller, 2009, p. 233). Development and change are enabled by invention, by successful initiatives that are imitated and hence become (social) innovations. *"Social transformations are explained by the individual initiatives which are imitated"* (Tarde, 1902, 1 cited in Michaelides & Theologou, 2010, p. 363), they are the directing, determining and explanatory force, the key drivers of social transformation processes.

The concept of imitation was discussed by his contemporaries. Tönnies (1929) criticised *"the lack of an analysis of the term imitation and a distinct definition of its content"* (p. 18811). Bammé (2009) argues that Tarde generalises the imitation term too much, he criticises that the term loses part of its meaning and notices a circular argumentation (p.136). Furthermore, Tarde wouldn't be able to consequently follow his intention to portray imitation as the unique principle of society. So he is forced to introduce the complementary term of invention, arguing that there are these two 'capital forces' (p. 125). In this perspective the first, main force is continuously active while the second force only comes into play discontinuously and eruptively. According to Bammé (2009), this cannot be brought in line with the copious and revolutionary inventions of our times. Still, these objections do not withstand a thorough analysis of Tarde's book on 'The social laws' where Tarde scientifically and socio-theoretically connects 'imitation' with 'opposition' and 'adaptation'. Imitation, opposition and adaptation are *„three different keys of science for exploring the universe"* (Tarde, 2009c, p. 4*). „Imitative repetition"* (p. 31) is described as the master key. Adaptation is considered a finer key for *"exploring the most secret and precious treasures"* (p. 5) and 'opposition' is a subordinate connector between 'imitation' and 'adaptation' which unlocks *"conflicts and fights of passing benefit"* (p. 5). Continuous repetition of the same without variation would lead to a congealment of society. What hinders this deep-freezing is the momentum of variation in imitation on the one hand. On the other hand, it is the reconfiguration of existing ideas and inventions which are leading to change.

Ideas and inventions are being imitated or not. They trigger new ideas and inventions or not. They provoke interruptions of continuous repetition and become drivers of societal development. For Tarde (2009c), the interruption of streams of imitations are no rare events but a steady stream of *"little revolts, little individual ingredients", "from personal initiatives which are passed from one person to another person"* (p. 95f.), *"apparently a nothing that is inexhaustible origin of reality"* (p. 104). *„Imitation, that socializes the individual, reproduces good ideas. In reproduction there is integration and fertilization"* (p. 96).

[11] Quotes from Tönnies and Tarde in this chapter translated by the authors.

Therefore, Tönnies' criticism is questionable. Tarde reduces invention neither to artifacts nor to results of masterminds. He does not write a *„history of heroic inventors"* (Borch & Stäheli, 2009b, p. 18). He creates a dynamic perspective on the individual as a starting point for social change and *"social alteration"* (Tarde, 2009c, p. 33). In contrast to Tönnies' remarks, the terms 'invention' and 'imitation' represent no fragile contradictory construction. *"Imitation and invention are not separable"* (Borch & Stäheli, 2009b, p. 18).

Imitation represents not only an imitation of ideas but includes their connection to previous ideas. They consist of *"elements of previous imitation (…), which again become elements of further and more complex imitations"* (Tarde, 2009a, p. 67). The invention is the centre, the starting point of imitation. The imitation is what creates new social situations or in other terms: The mechanism of social innovation is imitation!

For Tarde beliefs and desires are critical to social and geographical change, and new infrastructural technologies are important for a rapid transmission of ideas: Modern economy is a *„machine for promoting passionate imitation"* (Barry & Thrift, 2007, p. 518), *„Tarde has become a key that can be used to unlock certain tendencies in modern ‚economic' life (ibid.) and especially in the relations between social innovation and social change. (…) his understanding of what is the proper object of sociological enquiry stretches the limits of what is conventionally understood to be micro-sociology. He was concerned, as we have seen, with the analysis of the very smallest variations and transformations in style, pronunciation, habit and technology. He was interested in the study of subconscious and 'inter-psychological' processes, including suggestion, which have been considered to be at the margins of social and economic analysis. Yet, at the same time, Tarde viewed the study of such small variations as the key to the analysis of collective phenomena. (…) the dynamics of this economy depend on an increasingly tight feedback between forms of economic and political organization and the desires, concerns and passionate interests of consumers and citizens."* (p. 521)

A society does not only pursue, during each epoch, the greatest possible sum of riches, knowledge, glories, powers, beauties; it also pursues the greatest possible sum of riches, knowledge, and so on, that are deemed the best possible ones in the epoch in question (p. 618). In this perspective decoding the very complex laws of imitation is *"that one may able to reply the following difficult question: why, among several examples that present themselves at the same time, this example and not another has propagated itself in this country, in this age, in this class, and not elsewhere?"* (p. 642). This is a key question with regard to social innovation as driver of social change too.

If we follow Tarde (see chapter 2.3.1 and 2.3.2) in pointing out the social embeddedness of any invention in a dense network of imitation streams, then social innovations are first and foremost ensemble performances, requiring interaction between many actors. As the opening of the innovation process to society is a key characteristic of the new innovation paradigm (Howaldt & Kopp, 2012, p. 45), there is an accompanying increase in the experimental processes which take place not only in the separate world of scientific laboratories but also in society (Krohn, 2005). Social innovations and their actors, who critically, exploratively and experimentally depart from the prevailing mental maps, the established rules, routines, pathways and models in politics, business and society who call these into question and in a competition of ideas lead the way to changed, alternative social practices and lifestyles, are the basis and relevant drivers of transformative social change.

The conception of social innovation founded in social theory therefore focuses on the interfaces between the self-referencing social sectors of government, business, civil society and science, which are distinct and largely shielded from one another, on their respective rationales of action and regulatory mechanisms, and on the associated problems and limited problem-solving capacities. Regarding the governance question of how these interfaces should be reconfigured, established patterns of control and coordination are added, expanded and reforged via aspects such as self-organisation, intersectoral cooperation, networks and new forms of knowledge production. The associated processes of 'cross-sector fertilisation' (Phills, Deiglmeier & Miller, 2008, p. 40ff.) and convergence of sectors (Austin et al., 2007) increasingly enable a kind of blended value creation (Emerson, 2003) while at the same time promoting a 'moralisation of markets' (Stehr, 2007). Such cross-fertilisation and convergence processes require and enable far-reaching social innovations, which set in motion and spur the necessary blending of boundaries.

Changing social practices are generally based on drawn-out, contingent and self-managing processes which, as Tarde points out, are subject to their own 'laws' – the laws of imitation. Previous attempts to 'manage' such processes through policy have generally proven to be decidedly difficult. A comprehensive innovation policy,

which in addition to supporting new technologies also focuses on social innovations and enabling actors *"to suspend established routines and patterns, as only then can new ideas and behaviours thrive"* (Adolf, 2012, p. 40), on the necessary 'freedom' to do this and the opportunities *"to share objectified and personal (implicit) knowledge"* (p. 41), is only in its infancy and requires above all a deeper understanding of the principles and modes of action of social innovations.

"Fifty years before Schumpeter, eighty years before the development of the economics of technical change" (Latour & Lepinay, 2010, 51) Tarde proves to be the founder of a social theory of innovation and a theory of social innovation. *"Together with Gilles Deleuze Tarde is the only thinker of rank which has put the game of innovation and imitation in the center of a contemporary analysis. He portrays the modern age as an era in which the living inventors expire the rank of the normative deads."* And: *"More than any other great of his discipline Tarde looked to the bottom of the mechanisms of modernization"* (Sloterdijk, 2012).

2.3.2 Approaches with recourse to the analytical programme of Gabriel Tarde

Schumpeter's definition of innovation in his theory of economic development serves as the starting point of innovation research. It is often ignored that his approach was strongly influenced by Tarde's social theory (Taymans 1950; Michaelides & Theolugou, 2010). In this perspective, Schumpeter's approach can be seen as a specific and focused application of the much more comprehensive social theory developed by Tarde.

With regard to the current debate on the importance of social innovation, imitation (in terms of diffusion) and questions regarding its possibilities for (fast and sustained) spread are of central importance. The process dimension of social innovation concerns the creation and structuring of institutions as well as behavioural change and the empowerment of actors (Crozier & Friedberg, 1993, p. 19). Generation and diffusion in the 'social innovation cycle' (Murray et al., 2010) occur primarily through 'living experiences' and change-oriented 'capacity-building' (Moulaert et al., 2005, p. 1972). Social inventions only become social innovations when they are introduced into a new setting (Conger, 2003). The decisive criterion in a social invention becoming a social innovation is its institutionalisation or its transformation into a social fact (Durkheim, 1984), in most cases through planned and coordinated social action. The successful implementation and active dissemination of a new social fact usually follows targeted intervention, but can occur also through unplanned diffusion (Greenhalgh et al., 2004) – how much this is the case will be subject to research. As in the case of technological innovations, social innovations are not necessarily implemented and diffused by the inventor. The skills required to invent a new solution, differ from skills needed to scale it up and market the invention as innovation (Schumpeter, 1964).

Diffusion of innovations

Rogers (2003), who has decisively influenced research on the diffusion of innovations, also considers Tarde as a source of inspiration for his own ideas and believes him to have been far ahead of his time (p. 41). Rogers' approach to diffusion, which is still predominant in the business context, exhibits a series of links to Tarde which can assist in understanding the mechanisms by which social innovations spread. The processes by which social ideas and inventions spread through existing communication paths in a social system depends on their compatibility with the practical rationale in certain fields and their 'utility' in terms of (future) adopters. Social innovations evolve in a given social environment, from which diffusion expands mainly in forms of S-curves (Rogers ,1962). The 'early adopters', the opinion leaders for the innovation-ready mainstream follow the handful of 'innovators' who believe and are willing to experiment and assume risk. The 'late majority' is reluctant with regard to the innovation, and finally the group of conservative 'stragglers' may follow later or not at all. Successful diffusion up to a certain degree of saturation (which differs for varieties of innovation) marks the end of novelty, and the innovation takes hold. With regard to the diffusion processes – of material innovations as well as, in particular, social innovations – network relationships increasingly play a decisive role (Okruch, 1999).

At the same time, however, Rogers' reinterpretation of Tarde has contributed to a problematic narrowing of diffusion research. His references to Tarde are by no means *"slightly different concepts"* (Rogers, 2003, p. 41). They are rather a serious change of perspective. Whereas Tarde's sociology is interested in the genesis of the new as social practice, Rogers takes innovation (as generally rational problem-solving produced by science and technology) for granted and focuses on its 'transfer' into different areas of application. Thus Rogers severs the direct connection between invention and innovation, through which an invention first becomes an innovation – and therefore a social fact – and reduces the creative process of imitation to its adaptive function. According

to Rogers' definition, the innovation precedes the diffusion process. Diffusion focuses on the related rejection and acceptance behaviour, i.e. the innovation gains acceptance instead of being produced.

Associated diffusion research asks, with regard to the intended target groups, how the innovation can be substantially modified and prepared for information and communication purposes so that the adaption rate can be increased and/or accelerated. It attempts to develop push strategies aimed at speeding up the introduction of solutions into society (outside-in processes). The pro-innovation bias is constitutive for diffusion research. Diffusion research therefore generates an asymmetrical communication relationship between developers and users of problem solutions/innovations. Society itself as the original source of innovation and creativity is a blind spot in diffusion research. On the other hand, if one starts with Tarde's understanding of the relationship between invention and imitation, then that which Rogers defines as diffusion of an idea, technology etc. appears as a process which initiates new acts of imitation and triggers cultural learning processes while interrupting existing imitation streams and advancing social change. Inventions open up new opportunities, expose problems and shortcomings in established practices, initiate processes of learning and reflection, and ultimately enable new social practices. To this extent, one should enquire it's the potential of any invention to trigger such imitation and learning processes and hence generate new social practices. Only through the development of new or changes in existing practices do their effects unfold, do inventions become innovations and hence social facts. In reality, therefore, the process of diffusion is a process centred on changing patterns of behaviour that sets social learning processes in motion which are triggered by new inventions.

The internal logic of these processes of imitation and social learning, which Tarde makes the focus of his attention, therefore determines the innovation process. The unpredictable dynamics of the self-organised interaction of heterogeneous actors dealing in various ways with innovations requires *"more realistic assumptions about decision-making processes"* (Schröder et al., 2011, p. 28) and an approach that ultimately inverts Rogers' perspective. Whereas traditional diffusion research offers ex-post explanations of how individual innovations have ended up in social practice, the goal here is to develop approaches to understanding the genesis of innovations from the broad range of social practice, and which to this extent are concerned not so much with the transfer and modification of isolated singular innovation offerings but rather with multiple innovation streams, fed by an evolutionary interplay of invention and imitation: the *"cycle of interlinked and recurring (repeating with variations) actions"* (Tarde, 2009c, p. 73). Changing social practices is generally a drawn-out, contingent and self-managing process which, as Tarde points out, is subject to its own 'laws' – the laws of imitation.

Tarde and the actor-network theory

Closely connected to Tarde's social theory, French poststructuralist theory is addressing possibilities of intentional transformative social change. Gilles Deleuze and Felix Guattari (Krause & Rölli, 2010; Deleuze, 1992) made an important contribution to the late rediscovery of Tarde by focusing their perspective on the conditions of genesis and creation of the new in all areas of life. Especially their concept of micro-policy is highly inspired by Tarde's social theory. With explicit recourse on Tarde, the impulse for social innovations in terms of new social practices is the result of oppositional tendencies challenging routine behaviour.

Bruno Latour too recognises Tarde as a precursor of an alternative social theory and calls him an early forefather of the actor-network theory (Latour, 2010, p. 32ff.), because his approach is in strong opposition to mainstream sociology and to the advocates of linear development and the validity of the laws of evolution. In perspective on 'reassembling the social', Latour is primary engaged in new associations and their assemblages (p. 19). Similar to Tarde, the general question for Latour is not what the social facts and grand social achievements are or what the state of a system is, but – in terms of a sociology of social innovation - how these facts and achievements arose and how the laws of their emergence may be described.

The theoretical positions of practice theory, actor-network theory, Tarde's theory on imitation and institutional theories are interlinked and may be combined. Practice theory enables us to describe social innovation as a change in social practices based (if only partly) on purposeful intervention. Furthermore, the term 'form of practice' may be conceptualised as the 'interface' between singular social practices or innovative elements of social practice and social change. A 'form of practice' interlinks different practices to a larger assemblage, while the practices themselves may be described as a network of elements. Practice theory describes different types of elements in general terms such as 'meanings', 'resources' or 'competencies'. A practice therefore comprises material and immaterial elements. The dynamic relations between these elements, which determine how

elements affect and modify each other, signify what is 'social' about these practices. The term 'social' is thus understood in a relational and dynamic sense. The 'social' is in this perspective not a stable, independent structure (Durkheim's 'social facts'), which acts on human beings and determines their behaviour, but a relational dynamic which constantly reproduces or modifies practices[12]. Tarde introduced this relational understanding of 'the social' in opposition to Durkheim and is therefore referenced by actor-network theory as well as practice theory. We stated above that *"the examination of the constitutional elements of practices, of bundles and complexes of practices allows to realise processes of transformation. By describing stability and mobility of the elements one can show how contours of practices develop and change. In a sense, each new combination of elements and practices is an emergent result of previous practices"* (see chapter 2.2). This is obviously the link between social practice and social innovation.

In the general framework of practice theory, specific analytical terms and schemes of ANT may help us to conceptualise what 'innovation' may actually mean in this context. ANT originated from empirical innovation research (Akrich, Callon & Latour, 2002a, 2002b). The connection to innovation processes is therefore immediately evident: Innovation in this perspective consists of human, what Latour calls, and non-human actors which form an evolving actor-network that combines their properties in new ways enabling them to 'do new things'. This understanding of innovation is actually very close to the one we described for practice theory and cited above. ANT however, introduces the term 'translation' which is instructive with regard to innovation – the creation of new elements and consequently new practices.

Latour's (2007) main assumption is that humans as well as non-humans become actors by forming an 'actor-network'. The term 'non-humans' primarily refers to technologies, but encompasses material as well as immaterial entities (similar to practice theory). The assumption implies that becoming related is primary to becoming an actor. In the process of forming an actor-network the new actors modify the actor-network, but will also be modified by the actor-network. 'To modify' means that different actors *exchange their properties*. The properties of non-humans become properties of humans and vice versa. Through this exchange human and non-human actors also modify their programmes of action and thus create new functions and objectives. The process goes so far as that actors 'converge' and form a new 'hybrid actor'. Only when observing this process and its temporary results we may be able to say 'what an actor is' and 'what an actor can do'.

This process – called translation – is paraphrasing (or actually specifying) what we usually mean by innovation: A combination of elements which enables us to do new things or do things in a different (more efficient, more effective, more sustainable) way. Put differently: translation creates new social practices. Translation is embedded in the process of the enrolment of actors into actor-networks. In the language of SPT we could also say: the inclusion of new elements into a social practice. The scheme Latour proposes could be one perspective to better understand social practices over time as well as the generation of innovations as a part of this process (see table 2).

Phase 1 Disinterest: Different elements (=potential actors) exist, but are not related. It is not yet clear whether they may become related and thus, whether they may become actors.

Phase 2 Interest: Events or actions create mutual relevance and interest. Elements become relevant for each other when for instance an action programme fails or does not command appropriate means to reach its objective.

Phase 3 Composition: The 'actors in the making' exchange properties, modify their action programmes, and may ultimately compose a new goal.

Phase 4 Obligatory passage point: The new actor becomes part of the modified action programme. The actor becomes an 'obligatory passage point' which means that the modified action programme only 'works' or 'functions' because of this actor.

Phase 5 Alignment: The modified action programme including the actors and their relations become more and more routine. The new actor becomes a 'standard means'.

[12] See in a critical perspective (Howaldt et al., 2014, p. 46).

Phase 6 Blackboxing: The actor-network becomes 'black-boxed' which means that the actors and their relations that enable a certain programme of action are made 'invisible'. Blackboxing can be easily explained for technologies: The computer depends on thousands of small electronic parts to function, but the relation between these parts and the parts themselves are 'invisible' for the user who only has his/her programme of action in mind (for instance writing an email). The computer is 'black-boxed'.
Phase 7 Convergence: The actors and their relations appear as one unified actor. Alignment, blackboxing and convergence are strongly related.

Table 2: Latour's enrolment scheme (Latour, 1994, p. 37; adapted and explained by the authors)

STP and ANT have two main advantages for studying innovation processes compared to conventional approaches. Firstly, the proposed understanding of 'actors' or 'elements of a social practice' allows us to analyse heterogeneous types of elements using the same analytical language. Potential actors/elements may include persons, organisations, laws, documents, strategies, technologies, etc.

Secondly, the process of enrolment/disenrolment of actors from the actor-network relates innovation, diffusion and institutionalisation. In conventional innovation theory these processes have often been treated separately resp. as a succession of different stages.

We already discussed what 'innovation' could mean in this perspective. 'Diffusion' can be conceptualised as imitation according to Tarde. In a general way it could also be understood as the expansion of actor-networks or social practices to more complex, more connected forms of practice. Imitation is certainly one aspect of this process of diffusion, but probably not the only one. For ANT, diffusion is based on enrolment, the more actors enroll, the more the actor-networks diffuses.

ANT also challenges the conventional understanding of institution and institutionalisation. Both terms, as described above, are rooted in an understanding of the 'social' which is more based on Durkheim than on Tarde, but we have to be careful here. Although the term institution signifies a state of 'stability' and 'independence' of a social practice and although we may say that an institution 'enables' or 'restricts' action, sociologists never conceptualised institutions as a mysterious, independent force which acts causally on individuals. Latour's over-emphasised and programmatic criticism of 'the sociology of the social' (a programmatic term he uses to distance ANT from 'classic' sociological positions, in particular Durkheim) in his attempt to establish ANT is not helpful to understand 'institution' in the terms of actor-network theory. With a slight shift in perspective we could understand institutionalisation as a form of stabilisation of actor-networks or social practices. With his term 'black-boxing', Latour is actually quite close to what the 'sociology of the social' describes as an institution.

The main criticism from our perspective however is the way in which the actor-network theory augments the social dimension, the spectrum of actors, with the dimension of things and ascribes things or artefacts - respectably non-human-beings - a function as actors in the actor network and makes things participants. Still, things do not determine action, they can only enable, facilitate, offer, encourage, suggest, influence, prevent, exclude and so on (Latour, 2010, p. 124), they can open or constrain the scope of action. In dealing with things there is always a variety of modes of action. In this perspective, the approach is not a radicalisation of the socio-technology approach (Degelsegger & Kesselring, 2012), but in fact connectable to social theories of practices (STP). For the social world and social change nothing but social practices are important. The entities – so Latour referring to Tarde – are not individuals but innovations, impulses for change with a life of their own, respectively social inventions trying to spread everywhere people are.

Against this background Tardes approach allows a fruitful cross reference to social practice theory (SPT). The sketch from Tarde's approach and the recursive debate allow to coincide some important connecting factors for future conceptualisations of social innovation.

2.4 INSTITUTIONS AS 'RULE SYSTEMS' GUIDING SOCIAL PRACTICE

In this chapter we will discuss institutions and the process of institutionalisation based on established sociological theories showing their relevance for the study of social innovation. There are three main sociological approaches explaining institutions as rule systems: Max Weber's institutional theory, institutional

economics and neo-institutionalism (Stachura et al., 2009). Stachura et al. differentiate four general aspects of institutions. The authors show that sociological approaches can be described and differentiated along these aspects. Our strategy for SI-DRIVE would be to combine the different approaches rather than selecting one of them. In our view, the approaches seem to complement rather than to contradict each other:

- The rule aspect (Institutions guide practices by different types of rules)
- The acceptance aspect (Institutions need to be accepted)
- The motivation aspect (Institutions need to motivate a specific behaviour)
- The sanction aspect (Institutions reward conform and sanction non-conform behaviour)

Institutional economics are characterised by their focus on 'effectiveness' and 'utility' of institutions. Institutions appear as 'effective' and 'useful' arrangements. They are based on instrumental rules which connect a certain action to a certain outcome. For instance: A regular mammography will reduce your risk of developing undetected breast cancer. Governments and health ministries in this case are trying to institutionalise a certain social practice: The regular mammography. This is an instrumental rule which acceptance relies on individual benefits and a causal connection between social actions and expected outcomes. If medical research would invent more effective methods to diagnose early stages of breast cancer, the practice of mammography – in the perspective of institutional economics! – would lose acceptance and finally disappear. The motivation lies in the expectation of individual benefits or positive outcomes. Sanctions lie in the negative outcomes.

In contrast, neo-institutionalism generally focuses of 'constitutive rules'. We could also say: rules which are defined by/or define a certain game. Neo-institutionalism started off with the assumption that organisations do not adopt social practices simply because of their 'effectiveness' or 'utility'. Organisations are part of 'institutional fields'. Their embeddedness in organisational and sectoral networks and the asymmetric power relations within these networks lead to the adoption of social practices. Neo-institutionalism identified different types of 'iso-morphisms' or adaptation processes of individual organisation to their institutional field (Powell & DiMaggio, 1991). The types of coercive, mimetic and normative iso-morphism are in our view a mid-range theory which may enrich a theory on the diffusion of social innovation (p. 67ff).

How does this connect to 'constitutive rules'? In institutional fields it is – according to neo-institutionalism - at least as relevant to participate in a certain game as to implement effective practices, because the 'participation in a game' actually signals 'effectiveness' to other organisations. An example is the uptake of certain management practices. Neo-institutionalism furthermore specialises in constitutive rules in the form of implicit scripts or unquestioned conventions which guide social actions without becoming fully conscious for the actors themselves. Therefore, the motivation to follow a specific script does not have to become fully explicit either. Actors rather take a certain practice 'for granted'. This is similar to Berger und Luckmann's perspective on institutions which – as soon as they have been passed from one generation to the next – take on a rather intransparent, implicit and routine character. Neo-institutionalism therefore poses a twofold challenge to purely rational-instrumental approaches to institutions: Firstly, social practices are institutionalised as a response to the organisational environment and not primarily to improve effectiveness, secondly, social practices are institutionalised as implicit scripts which are not fully 'accessible' by rational considerations – they are a product of the history of an organisation, the socialisation of its members and the adaptation to the external environment.

Finally, Max Weber emphasised prescriptive rules as the foundation of institutions. Prescriptive rules are normative and consequently refer to general values or value systems. The institution as well as the social practice it guides is perceived as 'good' or 'right' in a normative sense. The rule for social action is thus: According to value A you should do (or should not do) B. We know of course many rules of this sort. The motivation for the individual is that he/she perceives the rules system as 'good' and 'right' as it expresses certain values. Therefore, the conform social action is also 'good' and 'right'. The potential problem with prescriptive rules is that non-conform social actions may actually have positive outcomes on individual level. Sanctions are therefore very important for prescriptive rules as the have a 'corrective' function.

Sociological approach	Institutional economics	Neo-institutionalism	Institutional theory according to Max Weber
The rule aspect (Institutions guide practices by different types of rules)	Instrumental rules: Pursue action A to generate outcome B Example: Do a regular mammography to reduce your risk of developing serious forms of cancer.	Constitutive rules: If you play game A then rule B applies Example: If you play chess, the bishop can move any number of squares diagonally, but may not leap over other pieces.	Prescriptive rules: According to value A you should do (or should not do) B. Example: You shall not steal.
The acceptance aspect (Institutions need to be accepted)	Institutional rules are accepted because they are effective and useful.	Institutional rules are accepted either as game-defining conventions or implicit conventions.	Institutional rules are accepted because they are based on values and are therefore perceived as 'good' or 'right' in a normative sense.
The motivation aspect (Institutions need to motivate a conform behaviour)	Motivation relies on the expectation and realisation of positive outcomes or the avoidance of negative outcomes through effective action.	Game-defining conventions rely on a motivation to 'stay in the game'. The 'game' itself may relate to values. Implicit conventions are 'taken-for-granted' and do not rely on explicit motivations.	The motivation for the individual is that he/she perceives the rules system as 'good' and 'right' as it expresses certain values.
The sanction aspect (Institutions reward conform and sanction non-conform behaviour)	Sanctions for non-conform are realised by not achieving the expected positive outcomes or not avoiding negative outcomes.	To deviate from a constitutive rule is described as 'meaningless' by Stachura (2009, p. 11) – To move the bishop not diagonally means to exit the chess game. In contrast, the deviation from prescriptive rules can be meaningful – positive benefits may be achieved by non-conform behaviour. We agree only partly to this statement. Neo-institutionalism actually shows that 'exiting a game' may lead to immediate sanctions by the remaining players – For instance a game where a supplier company in a specific institutional field does not implement a specific organisational practice ('just in time') and thus loses touch with partner organisations.	The potential problem with prescriptive rules is that non-conform social actions may actually have positive outcomes on individual level. Sanctions are therefore very important for prescriptive rules as the have a 'corrective' function.

Table 3: Sociological approaches of institutions as rule systems – overview

A comprehensive approach to institutions would comprise all these approaches. It is easy to see that an institutionalised social practice may rely on a combination of different types of rules. Stachura et al. (2009) also show that the types of rules are interlinked – prescriptive rules may refer to constitutional rules defining a 'game' which is highly valued – for instance 'scientific research'. But scientific research and the social practice of using certain methodologies also refers to instrumental rules – as we would generally agree that scientific methods are most effective to reach outcomes such as *"evidence-based and consistent knowledge of natural and social phenomena"*. Furthermore, we could argue that social practices which rely on multiple rules, acceptances, motivations and rewards/sanctions may be more stable than social practices which for instance only rely on prescriptive rules. This three-fold approach thus provides us with a provisional instrument to assess the stability of an institution, but also to detect ways in which this stability may be challenged. We may focus on the socially innovative practice we study or the existing institutionalised practices which are challenged by the social innovation. How are they stabilised? Are they strong or do they already 'crumble'? In which ways is the socially innovative practice 'better': Is it more effective? Is it becoming a new un-questioned routine? Is it more valued?

2.4.1 Degrees of institutionalisation

While the terms institution and institutionalisation are omnipresent in sociological thinking, starting from Durkheims 'social facts', the *process of institutionalisation* and *criteria by which the degree of institutionalisation of a certain practice may be assessed*, have not found sufficient attention yet. This could however be crucial to understand the relative stability or instability of a social practice and its relation to existing practices. As shown above practice theories and Tarde's social theory provide important insights in this context, which have to be linked more in further research.

Jepperson (1991) provides a general definition of the terms institution and institutionalisation which highlight the process dimension*: "Institution represents a social order or pattern that has attained a certain state or property; institutionalisation denotes the process of such attainment. By order or pattern, I refer, as is conventional, to standardised interaction sequences. An institution is then a social pattern that reveals a particular reproduction process. When departures from the pattern are counteracted in a regulated fashion, by repetitively activated, socially constructed, controls - that is, some set of rewards and sanctions - we refer to a pattern as institutionalised. Put another way: institutions are those social patterns that, when chronically reproduced, owe their survival to relatively self-activating social processes. Their persistence is not dependent, notably, upon recurrent collective mobilisation, mobilisation repetitively reengineered and reactivated in order to secure the reproduction of a pattern. That is, institutions are not reproduced by "action" in this strict sense of collective intervention in a social convention."* (p. 145)

In the context of the new institutionalism, Jepperson tried to define different forms and degrees of institutionalisation. He conceives the degree of institutionalisation in terms of relative vulnerability to social intervention:

"A given institution is less likely to be vulnerable to intervention if it is more embedded in a framework of institutions. It is more embedded if it has been long in place (so that other practices have adapted to it) or more centrally located within a framework (so that it is deeply situated). It is more embedded if it is integrated within a framework by unifying accounts based in common principles and rules. Further, the greater the linkage of this institution to constraints conceived to be socially exogenous - namely, to either socially exogenous (transcendental) moral authority or presumed laws of nature - the less vulnerability to intervention. The degree of institutionalisation is also dependent on the form of taken-for-grantedness. If members of a collectivity take for granted an institution because they are unaware of it and thus do not question it, or because any propensity to question has halted due to elimination of alternative institutions or principles (e.g., by delegitimating them through reference to natural or spiritual law), the institution will be decidedly less vulnerable to challenge and intervention, and will be more likely to remain institutionalised." (p. 151f.)

We tried to systematise this perspective in the following table (see table 4) which includes an initial compilation of criteria for assessing the 'degree of institutionalisation' (Giddens, 1984; Jepperson, 1991; Czada & Schimank, 2000; Stachura et al., 2009):

1. The (relative) independence of a social practice from continuous mobilisation Institutions are described as self-maintaining structures. Ongoing mobilisation would mean that continuous 'external' impulses are necessary to maintain a certain social practice. Imagine for instance that traffic regulations would have to be televised once a week to remind people on how to drive their cars. In reality, the institutional social practice of driving a car according to traffic regulations is maintained by many interconnected elements. **2. The (relative) independence of a social practice from individual persons** As long as the reproduction of a social practice relies on certain individuals (CEOs, Gurus, Initiators, etc.) the degree of institutionalisation is rather weak. Removing certain individuals would in this case lead to a 'break-down' of the reproduction of the practice **3. The (relative) independence of a social practice from specific contexts**
The diffusion or put differently - the transferability – of a social practice may also indicate the degree of institutionalisation. A social practice which only works in a specific context (a village for instance) is less institutionalised than a practice which works in different settings. **4. The duration of a social practice** Institutions are characterised by their long-term stability. Practices which are adopted for longer time periods are usually institutionalised to a stronger degree **5. The vulnerability of a social practice through external interventions or changes** The question here is whether a social practice can be easily irritated or even stopped by external intervention. Does a social practice remain stable despite changing conditions or the occurrence of competing social practices? **6. The degree to which a social practice is embedded in other institutionalised social practices ('networks or layers of institutions')** Institutions are embedded in institutions and thus form layered systems. An example: The institutional practice of buying a product (consisting of the roles of seller and buyers, the practice of exchanging goods for money, norms of reciprocity and fairness, the way his exchange takes place, etc.) is embedded in the institutions of money, national currency systems, banks and governments, etc. **7. The 'taken-for-grantedness' of a social practice** A non-questioned social practice which is carried out as a routine is usually institutionalised to a higher degree. This also implies the independence from high cognitive efforts to understand the practice. **8. The societal acceptance of a social practice** 'Acceptance' is a conscious attitude towards a certain social practice. Institutional practices are usually accepted. If they are not accepted and have to be maintained by force ('external mobilisation') this would signify a process of de-institutionalisation. **9. The complexity and stability of organisational structures maintaining a social practice** Institutionalised practices are in many cases supported or even carried out by organisations. Organisations are set-up to increase the efficiency and effectiveness of a social practice. Organisations comprise professional roles, distribution of labour, systematic planning, 'rationalisation' of activities, etc. **10. The existence of sanctions for non-conform behavior** The derivation from established practices is not always sanctioned. The existence of sanctions will generally signify some degree of institutionalisation. Sanction however may also be seen as 'external mobilisation'. A social practice which has to be sanctioned continuously may lack acceptance or 'taken-for-grantedness'. **11. The interpretation of institutions and sanctions: 'Economic necessity', 'Given by nature', 'Given by the gods', 'Result of societal consensus building', etc.** Institutions are interpreted in different ways which influence their perceived 'authority' over individual behaviour and the perceived consequences of conform or non-conform behaviour.

Table 4: Criteria for assessing the 'degree of institutionalisation'

2.4.2 Institutional design and institutional dynamics

We always have to remember that institutions do not exist separately from each other. And while they are characterised by *"relative stability"* (Zapf, 1994) we need to take into account that social change is characterised by a constant and interdependent flux of institutionalisation and de-institutionalisation of social practices.

Mayntz and Schimank (1995) developed an institutionalist theory called 'actor-centred institutionalism' (German: 'Akteurszentrierter Institutionalismus'). The actor-centered institutionalism is characterised by the fact that acknowledges the restrictions of intended institutional design (German: 'Institutionelle Gestaltungsintention') without denying its central importance for social change.This approach acknowledges

the simultaneity of intended institutional design and institutional dynamics. These are *"two mechanisms of the formation of institutions: The unintended emergence of spontaneous order from the contingent interaction of actors and the intentional setting social rules"* (Schimank, 2000, p. 23; translated by the authors). Any design intention is confronted with this tension as institutions do not 'freeze', but are reproduced by social action, which always implies the possibility of non-conform behaviour. The consequence of such deviations may be an intended or unintended transformation of an institution.

Schimank created a simple but instructive scheme that relates the characteristics of intended institutional design and institutional dynamics (see table 5). His general diagnosis is that social science focused on rather extreme situations of unleashed institutional dynamics (box 3.1) or an idealised setting where institutions are freely created (box 1.1) in contrast to the much more common situation of moderate institutional dynamics and parallel institutional design (box 2.1.). In this area, Schimank emphasises that 'steering competence' (German: 'Steuerungswissen') becomes relevant which is based on intended institutional design which strategically takes institutional dynamics into account. This is obviously the area where 'social innovation' is mostly situated as a response to identified institutional dynamics which led to specific societal challenges and problems.

		Intended institutional design	
		Yes	No
Institutional dynamics	low	1.1 Change is a matter of power distribution	1.2 Institutional equilibrium
	moderate	2.1 Change is a matter of "steering competence"	2.2.'Silent' and unconscious change
	strong	3.1 Change is a matter if political revolution	3.2 'Escalation' or 'bandwagon effect'

Table 5: Characteristics of intended institutional design and institutional dynamics (adapted and translated from Schimank, 2000, p. 30)

2.5 CONCLUSION

Relevance

While the question of the relationship between social innovations and social change has currently become a core issue of scientific discussion and for the politically practical shaping of social innovations, recourse to Tarde highlights their importance as a central element of a non-deterministic explanation of social change and a key element of social transformation processes. Since Tarde places the practices of imitation – and its laws – at the centre of his theory of social development, reference to the associated micro foundation of social phenomena provides vital input into an integrative theory of innovation. As a consistent scientific conception of active social life (Toews, 2013, p. 401) it enables us to discover how social phenomena, conditions and constructs come into being and transform.

A theoretically sound innovation theory must therefore examine the manyfold and varied imitation streams, and decode their logics and laws. From this perspective, the focus is always on social practice, since it is only via social practice that the diverse inventions etc. make their way into society and thus become the object of acts of imitation. Social practice is a central component of a theory of transformative social change, in which the wide variety of everyday inventions constitute stimuli and incentives for reflecting on and possibly changing social practices. It is only when these stimuli are absorbed, thereby leading to changes in existing social practices which spread through society and construct social cohesion via acts of imitation, that they drive social transformation. Thus new perspectives open up on an understanding of innovation which adequately captures the diversity of innovations in society.

Key lessons learned

In reference to practice theory and Tarde's social theory it is possible to develop a sound and comprehensive concept of social innovation and the relationship to social change. It also allows us to analyse the relationship

between social and technological innovation and to better understand the most appropriate conditions for introducing implementing diffusing and establishing social innovation as a new social practice.

The key lessons learned could be described as follows:

- Starting from the interdependent relations between the elements of social practices, or in Tarde's words, from the interdependent relations between imitation, opposition and adaption resp. new configurations, social innovations are central driver and element of social change. Hence, it is not surprising that they take a key position in the debate concerning the major social challenges and associated necessary social transformation processes.

- Tarde's approach can be used to bring about an important shift in perspective. Rather than constantly producing new individual interventions, it seems more meaningful to creatively reconfigure the potentials of existing inventions through social practice.

- With the shift in perspective from inventions to social practices of imitation, the key question in the context of diffusion is how new social practices come into being through the imitation of social practices.

- The internal logic of these processes of imitation and social learning, which is the focus of Tarde's attention, therefore determines the innovation process. The unpredictable dynamics of the self-organised interaction of heterogeneous actors dealing in various ways with innovations requires *"more realistic assumptions about decision-making processes"* (Schröder et al., 2011, p. 28) and an approach that ultimately inverts Rogers' perspective. Whereas traditional diffusion research offers ex-post explanations of how individual innovations have ended up in social practice, the goal here is to develop approaches to understanding the genesis of innovations from the broad range of social practice. Special attention should be paid not so much to the transfer and modification of isolated singular innovation offers, but rather to multiple innovation streams, fed by an evolutionary interplay of invention and imitation: the *"cycle of interlinked and recurring (repeating with variations) actions"* (Tarde, 2009c, p. 73).

- If we join Tarde in pointing to the social embeddedness of any invention in a dense network of imitation streams, then social innovations are first and foremost ensemble performances, requiring interaction of many actors and therefore cross-sector analyses of the dynamics of social practices and the corresponding governance of transition in practice.

- Social Innovation implies the institutionalisation of social practices (see SI definition of SI-DRIVE). Diffusion and institutionalisation have to be understood as parallel processes determining the stability or instability (vulnerability) of a social practice. For the process of institutionalisation we may differentiate dimensions and degrees of institutionalisation. The 'degree of institutionalisation' (relative stability or instability of a social practice) can be assessed based on criteria (as proposed above).

- Institutionalisation is not only relevant to assess the degree of institutionalisation of a social practice, but also to assess the degree of institutionalisation of established social practices which are challenged by new developments. The way new social practices relate to existing and institutionalised practices is highly relevant for their diffusion and institutionalisation! This leads to the study of parallel and interdependent processes of institutionalisation and de-institutionalisation which constitute social change.

- Different institutionalist theories can be combined to create a comprehensive approach: Institutions are based on instrumental (institutional economics), constitutive (neo-institutionalism) and prescriptive rules (Max Weber). The concepts of institution and institutionalisation may have to be 'translated' into the language of social practice theory and actor-network theory.

- From this point of view, however, the ambivalence of social innovations is easily obscured. The concept of innovation is not suited to distinguishing 'good' and 'bad'. The decisive difference is new and old. *"The normative linking of social innovations with socially highly esteemed values, which is often found, ignores the fact that in each case according to the differing perspectives concerned and prevailing rationalities, different goals and interests certainly can be pursued with a social innovation. Accordingly, depending on whose interests and social attributions are involved, social innovations in no way have to be considered 'good' per se*

in the sense of socially desirable in order to be called a social innovation – 'there is no inherent goodness in social innovation' (Lindhult 2008, p. 44). Their benefit and their effects, depending on the point of view, just as in the case of technological innovations, can indeed be ambivalent" (Howaldt & Schwarz, 2010, p. 61).

- New social practices cannot per se *"be regarded as the answer to the problem of sustainable development"* (Rückert-John, 2013, p. 294). Consequently, also when evaluating social innovations, advanced standards (Stiess, 2013) should be applied and a process of social discourse should be started which allows an exchange of different perspectives and rationalities and considers socially relevant interactions, via which they are given *"an orientation towards sustainability"* (Rückert-John, 2013, p. 294).

- Therefore, it is also necessary to develop a social innovation impact assessment and the selection of those social innovations which have the potential for a system change leading to a sustainable society. The broader question, however, is how social inventions or ideas become social innovations, and how their diffusion and the accompanying contingent and self-managing, problem driven, reflexive and rational social learning process can be analysed - especially if this is a phenomenon that is fundamentally distinguishable from technological innovations?

Next steps

Given the fact that the potential of social innovation theory is still under-exploited, it will be necessary to put a stronger focus on social theory approaches that will help us to better understand the dynamics and social mechanism of social change and the role of social innovation within these processes. In addition to a deeper analysis and inclusion of practice theory, institution theory and Tarde's social theory, especially the following approaches should be revisited:

- Social contagion research und memetic theory (Marsden, 1998)

- The process and figurational sociology of Norbert Elias,

- The formal sociology of Georg Simmel, precursor of social network analysis

- And the mechanism-approach of the so called analytical sociology (Hedström & Bearman, 2009).

While social change, as a *"process of change in the social structure of a society, its underlying institutions, cultural patterns, corresponding social actions and conscious awareness"* (Zapf, 2003, p. 427) can hardly be traced back to specific intentions, most social innovations result from intentional and goal-oriented action to establish new social practices in certain areas (Kesselring & Leitner, 2008; Hochgerner, 2009). The *"systemisation of trend-setting innovations"* as well as *"path-enhancing social changes"* (Geber, 2006) are, however, extremely difficult processes with many requirements.

For the SI-DRIVE project, understanding social innovation and how it can be steered by political intervention requires a solid theoretical and empirical understanding of how social innovation works, and also an informed view of how social innovation might evolve in the future, what problems it might have to address, etc.

We think that *"theories of practice have yet untapped potential for understanding change. Realizing their potential depends on developing a means of systematically exploring processes of transformation and stability within social practices and between them"* (Shove et al., 2012, p. 1). This opens up a new perspective on the concept on 'transition management' underlining the social mechanism of social learning and imitation (p. 160).

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3 DEVELOPMENT THEORY

Jeremy Millard (UBRUN)

3.1 INTRODUCTION AND OVERVIEW

3.1.1 Definitions of development

Development theory is a collection of theories about how desirable change in society is best achieved with a specific focus on so-called developing countries and emerging economies. However, it also relates directly to any context that requires socio-economic development or improvement, normally through planned or coordinated actions. It therefore draws on a wide range of social science disciplines and approaches (Allen & Thomas, 2000; Sachs, 1992). 'Development' can thus be seen as a multi-factor and cross-sectoral issue, potentially cutting across all areas of social, economic, political, cultural and technological change, and attempts to link these areas together to account for their combined effect at different scales and levels. In this sense, development addresses macro and typically global societal change as what is experienced in one country or region is perceived as being intrinsically part of larger scale and often pervasive trends. From this perspective, development is seen more specifically as 'international development' or 'global development', and as such, it is the basis for international classifications such as 'developed' country, 'developing' country and 'least developed' country. However, development theory also recognises that these trends in turn have significant impact at the meso and micro scales.

Given its breadth and inclusiveness, there are many schools of thought regarding the exact features constituting the development of a country. It is often used in the holistic and multi-disciplinary context of human development, especially concerning human quality of life (Gregory, 2009). In this sense, development encompasses foreign aid, governance, healthcare, education, poverty reduction, gender equality, disaster preparedness, infrastructure, economics, human rights, environment and issues associated with these.[13] The United Nations discusses development in terms of "*reducing poverty, promoting prosperity and protecting the planet*", and explicitly links this approach to the notion of "*lasting international peace and security which are only deemed possible if the economic prosperity and the well-being of people everywhere is assured.*"[14] Although the greatest and most pressing development concerns remain in the so-called developing world, Europe and other developed economies are by no means immune as each has its own set of societal challenges to confront. One issue is how similar or different these are in relation to the global challenges. Development is also a relative concept, certainly in the way it is measured, and is typically seen in the context of specific conditions in a given country or region, as well as what is happening at the global level (Sachs, 2005).

3.1.2 Development research and social innovation

Development research relevant to social innovation has taken a very wide range of different approaches addressing a variety of important questions. One approach sees the poor and marginalised as a resource in economic terms as producers rather than consumers, so that they become economic assets in terms of profit-maximisation and cost minimalisation. Not all observers see such an approach as positive, however. For example, the 'bottom of the pyramid' approach examines how companies and countries can enable these groups to deliver products suited to their situation (Simanis & Hart, 2008), as well as seeing them as constituting a huge new and often untapped consumer base (Prahalad, 2004). Others have focused on the economic nature of social innovation where social innovators might be change agents working for the poor and marginalised, although classical economists tend to see philanthropic or social enterprise as an aberration due to market failure which, once rectified by 'bureaucratic rules', can be ameliorated (Boettke & Rathbone, 2002). From this perspective, such activities would be classified as inefficient with the solution being instead to enable markets to deliver solutions for the poor (Sachs, 2005).

Another view is that social innovators can survive (and are thus economically efficient) because they fill the void between the state and the market. Boettke and Rathbone (2002) see social innovation as the non-market dimension of 'civil society'. Markets are also a part of this 'civil society', although social innovators do not have recourse to the institutions of property, prices and profit/loss to the same extent as markets. Social entrepreneurs traditionally need to rely on face-to-face mechanisms of self-governance, with the anonymous mechanism of the market being absent. In Boettke and Rathbone (2002)'s view, micro-finance is only seen to

[13] http://www.qeh.ox.ac.uk/research
[14] http://www.un.org/en/development/index.shtml

work because the transaction is built on the principle of reputation as collateral: family members must vouch for the lender. This helps to create opportunities not functioning in the market or in state action. The mechanism of reputation also limits the success of social entrepreneurship: the moment that the social entrepreneur cannot rely on reputation, they argue that the market becomes a better regulator (see also the chapter 4 where social entrepreneurship is covered in more depth.)

Although social innovation is widely recognised as an important development phenomenon, it has traditionally been perceived as being limited in scope. According to Boettke and Rathbone (2002) "*this problem of overcoming the dispersed knowledge makes social entrepreneurship a local phenomenon.*" However, this discourse has since been revised particularly because of the impact of new technology which is already transforming local and even national socio-economic dynamics from the bottom in many parts of Africa and elsewhere (Millard, 2014). Concurrently, in the more developed world, new technology is helping to scale up local success stories, enable resource poor individuals and small organisations have global reach (Anderson, 2006, 2012), and transform economic behaviour from being purely incentive-based to one more susceptible to widespread networks and the so-called social signal of social media (Ormerod, 2012). A good example of this is the 'sharing economy' movement where the internet helps people with excess or unused resources to share with those who need them.[15]

There is a strong consensus that social innovation approaches are imperative for finding solutions to the interconnected challenges of global and sustainable development (Babu & Pinstrup-Andersen, 2009; Couto Soares, 2012). As the STEPS Centre (2010) manifesto on innovation, sustainability and development clearly states, despite the important advances in science and technology, "*poverty is deepening, the environment is in crisis and the progress towards the United Nations Millennium Development Goals has been stalled*". The manifesto sees social innovation as having the potential to generate far-reaching and sustainable social welfare, while safeguarding the environment. To achieve these goals, however, public policies and funds, as well as social entrepreneurship at the grassroots, need to be effectively designed and deployed, and in many cases balanced partnerships need to be made with SMEs, as well as with corporates.

3.1.3 The development challenge

The challenges could not be more pressing. In September 2000, world leaders adopted the United Nations' Millennium Declaration (United Nations, 2000), committing their nations to a new global partnership to reduce extreme poverty and setting out a series of targets known as the Millennium Development Goals (MDGs). The eight MDGs, which range from halving extreme poverty rates to halting the spread of HIV/AIDS and providing universal primary education, are time-bound to the target date of 2015.

Although impressive gains have already been achieved in some MDGs, like the reduction of extreme poverty, access to safe drinking water, gender parity in primary schools, and improvement in lives for at least 100 million slum dwellers, targets are likely to only be partially met for many goals. Serious shortfalls are expected in targets like access to basic sanitation and health care, deaths from tuberculosis and maternal mortality. In addition, hunger remains a global challenge, illiteracy still holds back more than 120 million young people, progress on primary school enrolment has slowed and one in five children under age five in the developing world is still underweight (United Nations, 2013a).

The UN High Level Panel report (United Nations, 2013b) proposed that in addition to the 2015 goals, the post-2015 Sustainable Development Goals (SDGs) should ensure that everyone has access to good governance and effective institutions which are open and transparent, as well as to modern infrastructure like drinking water, sanitation, roads, transport and ICT. However, a serious barrier to real progress is increasing inequality in access to these benefits, and that this is strongly linked to other aspects of inequality such as income and education. "*We are deeply aware of the hunger, vulnerability, and deprivation that still shape the daily lives of more than a billion people in the world today. At the same time we are struck by the level of inequality in the world, both among and within countries. Of all the goods and services consumed in the world each year, the 1.2 billion people living in extreme poverty only account for 1 %, while the richest 1 billion people consume 72 %*" (United Nations, 2013b). Alongside improving governance systems and capacities, therefore, social and economic inequality has become an increasingly important theme, often highlighted in much of the United Nations preparation work for the forthcoming Sustainable Development Goals (SDGs) as part of the post-2015 development agenda (United Nations 2013a; United Nations 2013b). There is increasing evidence that inequality directly damages economic growth, so that countries with high levels of inequality suffered lower growth than nations that

[15] See for example the 'Shareable' website: www.shareable.net.

distributed incomes more evenly (IMF, 2014). Thus, regardless of any social or ethical objections to large and increasing inequality, strong evidence is now available that it also damages the economy and thereby the prospects for development (see also Wilkinson, 2005; Wilkinson & Pickett, 2009; Piketty, 2014).

It is clear there are many development challenges that need to be addressed in new and innovative ways. Across the world, there is huge unemployment, increasing landlessness and loss of sovereignty. Governments are often more responsive and accountable to international corporations and financial institutions than to their own citizens. Civil society, including voluntary groups, NGOs, trade unions, faith-based organisations, indigenous peoples' movements and foundations, faces huge barriers in many countries, especially when they are not recognised by the state as legitimate. In some countries, these organisations are oppressed by governments, in others they are marginalised by large corporations or overlooked in favour of a narrow focus on the private sector. Most success seems to occur where all these actors work together but also where civil groups, when truly anchored in local communities, have a significant voice (United Nations, 2013b).

3.1.4 Purpose and structure of this chapter

In this context, this chapter looks at the relevance of development theory to social innovation and its relationship to transformative social change approached from three perspectives. First, some of the main general development theories seen from the perspective of governments and international organisations are outlined using a chronological approach, given that many have evolved in reaction to previous or existing theories so can often best be understood in terms of their antecedents. Second, innovation theories typically arising from the bottom or from development practitioners on the ground are evaluated. Third, social innovation concepts and approaches which have largely been derived in the development context are assessed from a theoretical perspective. In each case the relevance for social innovation is examined.

3.2 STATE OF THE ART

3.2.1 Development theory and its relevance for social innovation

In this sub-section, some of the main general development theories, seen from the perspective of governments and international organisations, are outlined using a chronological approach, given that many have evolved in reaction to previous or existing theories so can best be understood in terms of their antecedents.

3.2.1.1 Modernisation and growth models

An important early component of theories of development focused on the process of so-called 'modernisation'. This was determined by the characteristics of a country which appear to be moving it towards modernisation defined as economic development, as well as those which seem to be holding it back. The backstory here is that development assistance, normally in the form of international aid programmes for developing countries which are traditionally seen as 'traditional' or 'backward', should be targeted at the particular aspects of a country which can lead to its modernisation (Tipps, 1973; Inglehart & Welzel, 2005). Modernisation theory itself springs from the earlier notion of 'progress' in the sociological and anthropological traditions. These were popularised by authorities like Durkheim (1893) who described inter alia how social order is maintained in society and ways in which 'primitive' societies can make the transition to more 'advanced societies'.

The mechanisms underpinning the modernisation process were mainly seen as theories of growth, most specifically through the so-called linear stages of growth model. This was exemplified by the Marshall Plan put in place to revitalise Europe's economy after World War II, and which pre-supposes that economic growth can only be achieved by rapid industrialisation. The most widely known example is Rostow's 1959 model which posits five stages for a developing country to pass through in order to become an advanced economy: traditional society; preconditions for take-off; take-off; drive to maturity; and the age of high mass consumption.

Rostow's assumption that development takes place through the same stages in all countries by overcoming traditional and pre-existing institutions of 'primitive' societies to achieve modern economic growth, has been questioned by Khun (2008), who points out that the social and institutional structures that have to be present to foster development are not considered. According to Kuhn (2008) such industrialisation, rather than leading to development, simply replaces existing coherent social structures with new forms of poverty and degradation, for example in urban slums or shanty towns, which perpetuates dependence.

3.2.1.2 Structuralism, dependency and basic needs

One reaction to the shortcomings of modernisation and growth theories was the emergence of structuralism as a development theory. This focused on the structural aspects which impede the economic growth of a developing country and its transformation from a mainly subsistence agriculture to a modern, urbanised manufacturing and service economy. Such a transformation needs major government intervention to promote the industrial sector, often known as Import Substitution Industrialisation (ISI), based on the so-called Prebisch-Singer thesis (Prebisch, 1950; Singer, 1949), in order to move towards self-sustaining growth. According to this theory, this can only be reached by ending the reliance of the underdeveloped country on the export of primary goods or semi-finished materials, and instead pursue inward-oriented development by shielding the domestic economy from exploitation by developed economies. Trade with these economies is minimised through trade barriers and an overvaluation of the domestic exchange rate to promote the production of domestic substitutes for industrial products which might otherwise be imported (Sachs, 1992). The origins of structuralism theory lie in South America, and particularly Chile, which promoted the idea in the 1950s that the only way for developing countries to develop is through action by the state to promote industrialisation and reduce dependency on trade with the developed economies, and instead trade among themselves. However, at least up until the 1990s, it was mainly practised in East Asian countries with considerable success, particularly in the early growth phases of Japan, South Korea and Taiwan where the socio-political and cultural factors were arguably conducive to such an approach (Smith, 1985).

Dependency theory shares many of the core ideas structuralism, but in contrast promotes the benefits of developing external links with the developed parts of the globe in a form of so-called 'dependent development'. This accepts the premise that developing countries will remain highly vulnerable to the world market and will be part of the flow of resources from the 'periphery' of poor and underdeveloped states to a 'core' of wealthy countries, leading to the accumulation of wealth in the latter at the expense of the poor states (Harrison 1979; Pacione 1988; Gottman, 1980). In contrast to modernisation theory, dependency theory recognises that not all societies progress through similar stages of development, and argues that underdeveloped countries remain economically vulnerable unless they reduce their connectedness to the world market. However, this is difficult given that they provide natural resources and cheap labor for developed nations which thereby attempt to maintain this position of power in a world system divided into a core, semi-periphery and periphery (Harrison, 1979; Gottman, 1980). One of the results of this world-system theory is the commodification of things, like natural resources, labour and human relationships (Wallerstein, 1974).

Because modernisation and structuralist-inspired development approaches were not achieving obvious poverty alleviation or reductions in inequality in developing countries, an alternative 'basic needs' approach was launched by the International Labour Organization in 1976. This defined an absolute minimum of resources necessary for long-term physical well-being in terms of a poverty line showing the minimum income needed to satisfy those basic needs. Basic needs theory does not directly focus on investing in economically productive activities but instead attempts to measure poverty in order to understand how to eliminate it. This, it is argued, is a good way to make people active in society so that they can provide labour more easily and act as consumers and savers (Jolly, 1976). According to Ghai (1978) and others, however, the basic needs approach lacks theoretical rigour and practical precision, as well as runs the risk of leaving developing countries in permanent backwardness .

3.2.1.3 Neo-liberalism and structural adjustment

Based on the theories of classical economics of the 18th and 19th Centuries, and building on some of the themes of the modernisation and growth theories, neo-liberalist theories became popular in the late 1970s and 1980s. These were based on the need to open and free-up markets, to reduce government intervention through deregulation in order to stimulate those markets, and to strictly control the money supply in line with the new 'monetarist' theories (Friedman, 1970). Based on such thinking, the World Bank and the International Monetary Fund shifted in 1980 from their 'basic needs' approach and started to impose so-called Structural Adjustment Programmes (SAPs) on developing countries as a condition for receiving loans and other forms of support. With the goal of improving the 'comparative advantage' of the developing country in global markets, SAPs required fiscal austerity through reducing government spending on infrastructures and services, privatisation to both raise money for governments and improve the efficiency and financial performance of the sectors involved, as well as trade liberalisation, currency devaluation and the abolition of market controls.

Neo-liberalism applied in a development context became known as the Washington consensus, a termed originally coined by Williamson (1989) to reflect his prescriptions for policies in such areas as macroeconomic

stabilisation, economic opening with respect to both trade and investment, and the expansion of market forces within the domestic economy. Despite opposition from Williamson, however, the term Washington Consensus has come to be used fairly widely to refer to a more general orientation towards a strongly market-based approach across all areas of society.

3.2.1.4 Sustainable development

Sustainable development encompasses forms of development (whether social, economic, cultural or technical) that "*meet the needs of the present without compromising the ability of future generations to meet their own needs"* (Brundtland Commission, 1987). All definitions of sustainable development relate to the carrying capacity of the earth and its natural systems and the challenges faced by humanity. The book *Limits to Growth* (Meadows, 1972) underpinned awareness about sustainability, which also quickly came to encompass the dangers of global warming and led to the 1997 Kyoto Accord with the plan to cap greenhouse-gas emissions (United Nations, 1998). More recently, the United Nations Inter-Governmental Panel on Climate Change has issued its latest 2014 report providing "*a clear and up to date view of the current state of scientific knowledge relevant to climate change*".[16] Sustainable development has today also come to mean much more than a sustainable environment, although this remains paramount, and increasingly applies just as much to sustainable societies, economies and cultural and political systems. In fact, from a sustainability perspective, its different components are closely interlinked and cannot be easily separated (United Nations, 2013a; United Nations, 2013b).

Critics of the sustainable development movement often point to disagreement amongst scientists around the complex physics and the role of human agency in climate change. One theory is based on the environmental Kuznets' curve which postulates that, as an economy grows, it shifts towards more capital and knowledge-intensive production leading to less pollution once a threshold is reached where production becomes less resource-intensive and more sustainable. This would imply that a pro-growth rather than an anti-growth policy is needed to solve the environmental problem (Kuznets, 1955; Yandle, 2000). But the evidence for the environmental Kuznets curve is inconclusive, and there is stronger empirical evidence that as income increases people consume more which counterbalances any environmental gains from more efficient production (Fields, 2001; Roberts & Thanos, 2003).

3.2.1.5 Post-development and human development theories

In the 1980s and 1990s, post-development theory started to fundamentally question the whole idea of national economic development, given that the goal of improving living standards depends on disputable claims about the desirability and possibility of the 'development' goal. From this perspective, the idea of development is just a 'mental structure' (Sachs, 1992) that leads to a hierarchy of developed and underdeveloped nations, with the latter desiring to be like the former. According to Sachs, development thinking has been dominated by Western ethnocentricity, but the Western lifestyle may not be a realistic nor desirable goal for all countries if it means destroying indigenous cultures, identities and modes of life. Escobar (1995) proposes a post-developmental approach embedded in local culture and knowledge, and structural change based on solidarity and reciprocity.

Building on some of these ideas, human development theory focuses on how social and institutional capital can contribute to the overall value of human capital in social and economic systems. It draws on many sources of inspiration, including ecology, sustainable development, feminism and welfare economics. According to Wikipedia (2014a), human development theory like ecological economics focuses on measuring well-being and curtailing the 'uneconomic growth' that comes at the expense of human health. However, it goes further in seeking not only to measure but also to optimise well-being through a more explicit ecological approach to modeling. The role of individual capital within that ecology, and the adaptation of the individual to *"live well"* within it, is a major focus of human-development theory. Sen (1999) emphasises capabilities rather than needs, prioritising what people can do and be, rather than the income focus of the 'basic needs' approach. This core idea also underlies the United Nations' Human Development Index, a human-focused measure of development pioneered by the UNDP in its Human Development Reports.[17]

3.2.1.6 Globalisation

According to Robinson (2007), globalisation is reshaping how we have traditionally gone about studying the social world and human culture, and a field of globalisation studies is now emerging across the disciplines

[16] http://www.ipcc.ch.
[17] http://www.undp.org/content/undp/en/home/librarypage/hdr/

(Appelbaum & Robinson, 2005). Robinson sees a number of main trends driving this development, first the emergence of a globalised economy involving new systems of production, finance, consumption and worldwide economic integration. Second, new transnational or global cultural patterns, practices and flows, and the idea of 'global culture(s)' (Moore, 1993). Third, global political processes such as the rise of new transnational institutions, alongside the spread of global governance and authority structures of diverse sorts. Four, the unprecedented multidirectional movement of peoples around the world involving new patterns of transnational migration, identities and communities. Robinson's final trend is new social hierarchies, forms of inequality, and relations of domination around the world and in the global system as a whole. Others would add additional trends, particularly the increasing flexibility of technology to connect people around the world, from mass media to ICT (Kaplan, 1993; Reyes, 2011). Global communications systems are rapidly gaining importance with easy and increasingly cheaper, virtually instantaneous and multi-directional interaction, not only by governments and companies but also by individual at all levels.

There is much agreement concerning these trends as the defining characteristics of globalisation, but this does not extend to considerations about its benefits. On the one hand authors like Wolf (2004) and Legrain (2002) see globalisation as mainly bringing benefits at every level driven by trade and foreign direct investment, which, under the right conditions, can lift millions out of poverty, as in China. They argue that, for example, international corporations typically pay better wages than local employers and that their investment is essential for development. Largely dismissive of these arguments are scholars like Held (2004), Moore (2004) and Meisel (2004) who point to the burgeoning social, economic and environmental problems thrown up by globalisation. For example the undermining of national social settlements especially between capital and labour and the consequent *"race to the bottom"* in which governments deregulate the business environment and tax regimes in order to attract or retain economic activity in their jurisdictions, resulting in lower wages, worse working conditions and lower environmental protection. Further, Stiglitz (2003) argues that rather than producing prosperity, globalisation invariably brings poverty, economic uncertainty and social distress, and that this is mainly the result of the poor or non-existing governance and management of globalisation. Spurred by the global financial and economic crisis of the last six years, Stiglitz (2010) further developed this thesis in a call for a new global financial architecture in order to fundamentally reform the ills global economy. This has been very recently supplemented by Piketty (2014) who marshalls impressive global evidence, as well as from wide historical sources, to show the need for global structures to tax wealth rather than income both to tackle inequality as well as promote economic growth, jobs and social cohesion.

3.2.1.7 Emerging theories of the social economy and the development context

At the present time a number of new concepts and theories are emerging in early form around incipient types of new social economies which have resonance as part of the broader set of development theories. Porter and Kramer (2011) performed something of a volte-face when they revised their ideas about where business value can and should be found from their hitherto focus on shareholder value, business strategy and core competencies. Instead, they now emphasis what they term 'shared-value' in which not just shareholders should benefit from business profits, but so should wider society. They suggest that the competitiveness of a company and the health of the communities in which it operates are mutually dependent, and that indeed recognising and capitalising on these interdependencies between societal and economic progress is where the next phase of global and economic growth is to be found.

Moving from the company to the global and historical scale, Perez (2009) has studied the dynamics of socio-economic-technological transformations which every 50-80 years fundamentally reconfigure societies around new so-called 'general purpose technologies', such as steam and electricity in the past to Information and Communication Technology (ICT) today. According to Perez's definition, each such paradigm shift brings with it fundamentally new forms of production, innovation, culture and institutional and societal structures in two phases of development. First, an installation phase in which the new technological systems are rolled out, and are typically over-invested, over-hyped and not well-used. This leads to a massive economic bubble and then crash. Secondly, a deployment phase in which societies learn how to extract both social and economic value from the shift, and which represents the phase we are now entering.

Others have and are documenting the socio-economic consequences of these changes. Castells, Caraca and Cardoso (2012) charts how ordinary people are coping with the latest economic crash through field work in Barcelona which shows that 97% of families surveyed have engaged in non-capitalist economic practices since 2008 simply to survive. This is a massive rise compared to the period before the crisis. Such practices include growing food, consumer cooperatives, exchange and social currency networks, free universities, hacklabs, etc.

The interesting aspect here is that the solutions being found are coming from ordinary people in their own localities responding creatively and innovatively to the pressing challenges they and their families and communities are experiencing every day. Gansky (2010) and others are starting to document and map out part of this movement as the 'sharing economy' in which people start to share goods, services and facilities rather than have exclusive ownership rights over them, whether this be cars, buildings, tools, clothes, machines, etc. One of the principles here, in a world bedevilled by pollution, over-production and a throwaway culture, is that without more intense use of under- or un-used assets (like a power tool that is only used by its owner for 8 minutes a year), our socio-economic systems are at best inefficient and at worst unsustainable. Doshi in 2012 estimated that the value of the UK's so-called sharing economy was already worth €22 billion, illustrating the economic as well as societal value of asset sharing and a move away from the primacy of ownership both on a monetary as well as non-monetary basis.

It is also clear that the sharing economy is nothing new and has always existed in both the developed and developing worlds. What dramatically boosts its relevance and impact today is the power of ICT enabling instantaneous communication and linking on a global scale between would-be sharers and loaners. Indeed, in Jeremy Rifikin's latest book (2014) he observes and theorises that such developments with such tools are rapidly carving out a new economic niche which he terms the 'collaborative economy and society'. Here, people and organisations do not just share existing things but are also empowered on a large scale, for the first time since the modern market economy formed, to opt out of passively purchasing goods and services. Instead, Rifkin documents, people are increasingly producing these themselves as so-called 'pro-sumers', largely bottom-up and laterally rather than top-down and hierarchically as in the traditional market economy.

Rifkin (2014) sees these developments as already emerging as a significant new social economy which, although not elbowing out the traditional market economy in the short term, is destined to become a huge part of global society in the next twenty years. It started with virtual and information services exploiting the so-called 'long tail' (Anderson, 2006) and the network effects (Ormerod, 2012) of ICT, which dramatically disrupted numerous industries (music, publishing, journalism, software, etc.). It is now spreading to physical goods and services through, for example, 3D printing and the 'maker's movement' (Anderson, 2012), as well as energy sharing networks as in Germany. Here, large numbers of small scale suppliers exchange and sell the energy they generate, with solar and wind-power, for example, over an energy network similar to the internet of information we are familiar with. Rifkin's thesis builds on Pine's 1992 theory of 'mass customisation' in which he observes that, whilst the 20th Century was dominated by mass production and consumption, the 21st Century is already coming to be characterised by mass customisation in which goods and services are only produced when an individual customer wants and designs them, thus reducing the costs of waste and inventory as well as giving people precisely what they need. Customisation or personalisation can only become 'mass' by using ICT. Rifkin's theory also harks back to Perez's theory of installation and deployment stages, as once the infrastructures have been built (whether the internet, the energy-network or the internet of things), then the marginal cost of producing value over them moves to zero, which in his view also heralds the end of capitalism as we know it.

The above developments are already impacting thinking in development circles at a number of levels. They signal a clear return to an understanding that local social, economic and cultural structures and competencies have huge value and are crucial to sustainable development, as first seriously investigated in the basic needs approach in the 1970s, and then again since the 1990s in the context of post-development and human development theories. Empirically it also recognises the changes taking place in some developing countries, as in both Eastern and Southern Africa and Asia, which are exploiting the technology from the bottom within their own socio-cultural contexts. This is leading rapidly to new production and consumption systems within both the monetised and non-monetised economies, even though these are still small scale compared to the existing globalised market system. Much of this is based on the explosive growth of mobile technologies in these countries, as well as technologies for 3D printing and local energy production, but is also dependent on indigenous innovation capacities which are meeting local needs first and foremost as well as in some cases also having global impacts (see also section 2.2.3).

3.2.1.8 Summary and overview

In charting the construction of development theories and related concepts of relevance to social innovation, it's clear that this is closely linked to issues surrounding the building of societies and economies particularly in the poorer regions of the world, the so-called developing countries. Much of the debate has been and remains at the macro and global level, but this is always translated at the meso and micro scales into practice on the

ground. This has involved the steady incorporation of more locally embedded and bottom-up theories to inform the main actors, whether governments, the private sector, non-profits and NGOs as well as local communities themselves. Indeed, it has been demonstrated that development theory has often been tested, some would say to destruction, in real life situations, and in fact just as often follows practice than leads it.

Development theory is, however, not just relevant to the so-called developing world, but also to the more developed parts of the world including Europe. For example, six years ago the subject of widespread poverty in Europe itself would not have had much traction. However, the economic and financial crisis has re-opened a serious north-south and west-east split between European countries with levels of relative poverty soaring in countries like Greece, Portugal and Spain. In addition, the number of poverty-stricken people within many northern and western European countries has also risen dramatically in the last few years, for example in the UK and even in countries like Denmark. According to the Equality Trust think-tank, the ever-increasing gulf between rich and poor in Britain is costing the economy more than €48 billion a year. The effects of inequality can be measured in financial terms through its impact on health, wellbeing and crime rates, according to statisticians at the independent campaign group.[18]

Looking at the theories and concepts presented in this section, the early development theories, such as modernisation, growth, structuralism and dependency, tended to dominate up until the 1970s but still have influence today. All focus strongly on macro-economic intervention, typically imposed top-down by governments and/or by so-called 'global forces', and which largely ignore existing social and institutional conditions and needs. Transformative social change in these theories is seen as taking place almost despite social need, however defined, but imposes itself on such needs typically through a commoditisation of them on the assumption that they require 'modernisation'. In the mid 1970s, the basic needs approach, on the other hand, provided some reaction to these underlying assumptions by attempting to understand social and economic needs as reflected in specific contexts and through a specific focus on poverty alleviation by activating people in society. However, this more bottom-up basic needs approach attempting to look at the real lives of people and communities, found it difficult to translate its perspective into a more rigorous theoretical approach.

Because of the difficulties of the 'basic needs' approach, the appeal of an essentially fundamentalist top-down and macro approach as an explanatory theory for tackling development, both economic and social, across all societies and cultures, reasserted itself as neo-liberalism in the late 1970s and early 1980s. Transformative social change was once again seen as needing a strongly market-based framework across all areas of society and, although the more simplistic and extreme interpretations of this approach have since ebbed, much of the furniture remains today and still determines much societal policy despite the economic and final crisis of 2008. Indeed over the last twenty years, and despite the continued overall sway of neo-liberalism, promising new theoretical frameworks have started to be built in the development context. Since the late 1980s, the rationales of sustainable development have grown significantly especially under the auspices of international organisations like the United Nations. Much of this has been driven by the early realisation of the dangers of climate change and other environmental concerns, and their growing and pernicious impacts on social and economic development generally, as well as in particular on the least developed countries and the most vulnerable populations.

Over the same period other important theoretical constructs began to emerge, notably post-development theory and human development theories. The former developed its critique of the heretofore existing panoply of development theory by exploring the idea that development is just a 'mental structure' imposed by the West in almost blanket terms, whether appropriate or not, on other cultures and social structures. Post-development theory is interested both in the micro-level of local culture and knowledge and the promotion of local grassroots movements, as well as at the level of systemic social change in the structural developments needed for achieving more widespread solidarity, reciprocity, and the incorporation of traditional knowledge. Similarly, human development theory takes ideas from many sources including ecology, sustainable development, feminism and welfare economics, and focuses directly on well-being through a more explicit ecological approach to theory construction and modeling. In contrast to the earlier basic needs approach, Sen (1999) focuses on the importance of capabilities rather than needs in determining well-being, an approach now directly incorporated into the United Nations' Human Development Index.

[18] Reported in the Guardian newspaper, 16 March 2014: http://www.theguardian.com/society/2014/mar/16/inequality-costs-uk-billions

Since 2000, new theories of globalisation have, both consciously and unconsciously, attempted to knit many of the aforementioned development theories into a more overarching framework. In so doing, the debate has to some extent again bifurcated into, on the one hand, a more fully-fledged market-based approach which sees globalisation as bringing largely beneficial impacts at every level driven by a globally-based division of labour, trade and foreign direct investment. On the other hand, however, there is also burgeoning evidence and theoretical explanation for the acute social, economic and environmental problems thrown up by globalisation. Moreover, in the past ten years critiques of the neo-liberalist doctrine have nevertheless mushroomed from a number of perspectives. In terms of morality and ethics and their links to social change, Sandell (2009) built upon Sen (1999) by focusing on fairness and justice and fundamentally questioning the morality of extending market principles into all aspects of our lives. From a broader perspective and by theorising that "*all economies are cultural, social and institutional*" and have little to do with classical economic theory, Castells (2012) demonstrated their thesis through detailed empirical research into the rise of "*alternative economic cultures*" in Barcelona, resulting in transformational social change at the grass-roots.

In mainly economic terms, Stiglitz (2010) mounted the strongest direct attack by documenting the neo-liberalist causes of the crisis itself, and urged the building of a new global financial architecture in order to fundamentally reform the ills of the global economy, and especially its clear link to increases in widespread poverty and social distress. Social and economic inequality, alongside improving governance systems and capacities, has also been an increasingly important theme, often highlighted in much of the United Nations preparation work for the forthcoming Sustainable Development Goals (SDGs) as part of the post-2015 development agenda (United Nations, 2013a; United Nations, 2013b). The theoretical understanding of inequality has been led by Richard Wilkinson (Wilkinson, 2005; Wilkinson & Pickett, 2009) and was recently underpinned by the erstwhile champion of neo-liberalism, the International Monetary Fund (IMF 2014). The case for the neo-liberal causes of inequality have now been elegantly reinforced by Piketty (2014) who writes that, because economic growth will always be smaller than the profits from any money that is invested, there is an inbuilt bias towards increasing inequality. Economic growth is what we all benefit from, but profits from invested money accrue only to the rich who alone have the money to invest, so no one else can ever catch up. In essence, Piketty is debunking the notion that hard work will lead to wealth. On the whole it is "*only wealth that reliably leads to more wealth and everything else is chancy*" (Piketty, 2014).

At the present time a number of new concepts and theories are emerging in early form around incipient forms of new social economies, such as Porter's (2011) thesis of 'shared-value' in which not just shareholders should benefit from business profits, but so should wider society. At the global and on an historical scale, Perez (2009) proposes long cycles of socio-economic-technological transformations triggered by 'general purpose technologies' like steam, electricity and ICT, each heralding new forms of production, innovation, culture and institutional and societal structures. Others are documenting the socio-economic consequences of these changes, such as the 2008 economic crash examined by Castells (2012) in Barcelona showing that 97% of families surveyed have engaged in non-capitalist economic practices since 2008 simply to survive. Gansky (2010) and others are starting to document and map out part of the rapidly growing movement of the 'sharing economy' in which people start to share goods, services and facilities rather than have exclusive ownership rights over them, whether this be cars, buildings, tools, clothes, machines, etc.

It is also clear that the sharing economy is nothing new and has always existed in both the developed and developing worlds. What dramatically boosts its relevance and impact today is the power of ICT enabling instantaneous communication and linking on a global scale between would-be sharers and loaners. Indeed, in Jeremy Rifikin's latest book (2014) he observes and theorises that such developments with such tools are rapidly carving out a new economic niche which he terms the 'collaborative economy and society'. Here, people and organisations do not just share existing things but are also empowered on a large scale, for the first time since the modern market economy formed, to opt out of passively purchasing goods and services but instead produce these themselves as so-called 'pro-sumers' largely bottom-up and laterally rather than top-down and hierarchically as in the traditional market economy. In all this recent theory development, ICT plays a critical enabling role, although its precise impact is as yet far from clear.

The above developments are already impacting thinking in development circles at a number of levels. They signal a clear return to an understanding that local social, economic and cultural structures and competencies have huge value and are crucial to sustainable development. Empirically it also recognises the changes taking place in some developing countries like Kenya, Rwanda and India which are exploiting the technology within their own socio-cultural contexts to support rapidly growing new production and consumption systems within

both the monetised and non-monetised economies, even though these are still small scale compared to the existing globalised market system.

In relation to developing a theory of social innovation based on its objectives, content and processes, many of these development theories, and especially the more recent manifestations, closely mirror the objectives and desired impacts of social innovation in meeting real social need in new ways. Their content, which has increasingly been focused more specifically on the daily social needs of people for work, education, health and prosperity in local contexts and in ways they themselves have some control over, can also contribute to strengthening theories of social innovation. Likewise, the more bottom-up and participative development practices, and the theories based on them, is in line with the scope of social innovation and can complement new more broadly based theories of social innovation. Similarly, most of the theories presented attempt to explain and promote systemic societal change from their specific perspective. As we saw there has been a dialectic between, on the one hand, a more macro, top-down and fundamentalist market-driven different set of constructs, whilst on the other hand, a more locally-embedded, nuanced as well as socially and culturally aware approach has become more important in recent years without seriously threatening the former. Into this mix of views on systemic societal change, new conglomerations of the two approaches have emerged even more recently. Many of these are attempting to build new economic models based on shared value and social value, a focus on the sharing and collaborative economy enabled by ICT alongside an increased concerned for inequality, poverty and social distress.

3.2.2 Innovation theories in development contexts

In this sub-section, three innovation theories, typically arising from the bottom or from development practitioners on the ground, are evaluated within the context of social innovation.

3.2.2.1 Bottom of the pyramid

The bottom of the pyramid (also known as the base of the pyramid or BoP) is made up of both the largest and the poorest socio-economic group, consisting of about 4 billion people globally each of whom lives on less than US$2.50 per day (Wikipedia, 2014b). The purpose of BoP theory is to demonstrate innovative new models of doing business that specifically target this demographic, often using new technology. The main proponent of BoP is Prahalad (2004) who urges that, even though the poor as individual consumers may have very small purchasing power, their very large numbers mean that collectively they represent a huge market. Prahalad contends that this is a better approach than seeing the poor only as victims in need of development assistance but instead able to engage in the global economy and help themselves in moving out of poverty, especially if large multi-nationals design appropriate new business models working with local communities and national governments. Some sceptics, however, most notably Karnani (2006), argue that while a few market opportunities do exist, the market at the BoP is generally too small monetarily to be very profitable for most multinationals. He also stresses, however, that the private sector might play a key role in poverty alleviation by viewing the poor as producers, and emphasise buying from them, rather than only selling to them.

Hart (2005) advanced a complementary BoP approach that instead sees the poor as potential partners and innovators in creating new business models, for which he developed a so-called 'Base of the Pyramid Protocol'. This is a guide for companies in developing business partnerships with poor communities in order to *"co-create businesses and markets that mutually benefit the companies and the communities",* and has been adopted by a number of companies. The potentially resource-light BoP approach has also been recognised as part of sustainable development theory given that the products and services being sold, as well as their marketing and packaging, can be relatively simple and low cost. BoP has also been seen as a useful tool for Corporate Social Responsibility, although the latter has been criticised by Porter and Kramer (2011) as an easy way out for companies to dispense such responsibility, and which ultimately has very limited impacts.

3.2.2.2 Frugal and inclusive innovation

To some extent countering the critique of the BoP as of insufficient market weight to attract the interest of the multi-nationals of, frugal innovation, sometimes termed frugal engineering, is the process of reducing to the minimum possible the cost and complexity of a good or service and its production (Wikipedia, 2014c). Usually this refers to removing non-essential features from a durable good, such as a car or phone, in order to sell it in developing countries. This does not necessarily mean less, but often greater, durability given the contexts in which the product is to be used, but it does sometimes mean selling through unconventional distribution channels to consumers who have traditionally been largely overlooked. According to The Economist (2010), the roots of frugal innovation can be seen in the appropriate technology movement of the 1950s, but has since

shifted its focus from only being a sideshow for large corporation to involving local entrepreneurs in developing countries innovating and producing for each other. For example, frugal innovation is not limited to durable goods, such as General Electric's US$800 electrocardiography machine or the US$100 'One Laptop Per Child' programme, but increasingly also encompasses services such as the 1-cent-per-minute phone calls, mobile banking, off-grid electricity, and microfinance (Bhatti, 2013).

Many countries in the global 'South' (especially Brazil, India and many developing countries in Africa) are pioneering this new approach to innovation which is diametrically opposed to what Bhatti et al. (2013) terms the costly, rigid and elitist research and development-driven approach prevalent in industrialised countries. Unlike the structured and resource-intensive Western innovation model which strives to do more with more, frugal innovation boasts the ability to do better with less – to create significantly greater social value while minimizing the use of scarce financial and natural resources.[19] Frugal innovation has gained particular popularity in the South Asian region, and especially in India, where it is often known as 'Jugaad innovation', a Hindi word based on a traditional Gandhian approach (Tiwari & Herstatt, 2012, and Roberts et al., 2012).

The term 'inclusive innovation' is very close in meaning to frugal innovation, is often used interchangeably with it, and has very recently in fact begun to be the more common label. In an unofficial report to the European Commission in August 2013, Mashelkar (2013) defines inclusive innovation as a means to promote inclusive growth which embraces the 'have-nots' and attempts to bring them into the mainstream of the economic system as customers, employees, distributors and intermediaries in order to ensure that resource-poor people gain access to the essential necessities of life at affordable prices. Mashelkar (2013) goes on to outline the five key characteristics of inclusive innovation as: affordable access; working on a sustainable basis; developing quality goods, services and livelihood opportunities; access to the excluded population; and having significant outreach.

Frugal and inclusive innovations are also giving rise to an important theoretical behavioural debate about how individuals behave in a variety of situations. Prominent amongst these is the view that for every frugal innovation borne from the necessity of scarcity and making a virtue of limited available resources, there are huge numbers of individuals and communities who are so focused on survival that they do not have spare 'cognitive capacity' to do anything else. Research by Mullainathan and Shafir (2013) has shown that this 'channelling' on one task diverts attention from other life activities, even important ones but which may not be as important today. This is a characteristic not just of income poor people, but of the vast majority of people placed temporarily or permanently in scarcity situations. The fact that this is not the 'fault' of the poor but is a trait we all share (Mullainathan & Shafir, 2013), leads to a 'scarcity design' approach as a specific type of 'design thinking' strategy (see the chapter on this). This approach proposes developing customised systems of support around people with lack of time, as well as vulnerable or resource-weak individuals, that are designed to make their lives as easy and as simple as possible so they can focus on solving their own problems of scarcity rather than grappling with a complex system. This approach might involve creating a customised 'cockpit' of information, controls and support aiming to provide the user which as much 'slack' (i.e. spare cognitive capacity) as possible when juggling the whole range of public and other services they need, e.g. education, health, care, childcare, employment support, paying bills, etc. Some versions of this involve the informational, coordinating and integrative facilities of ICT.

3.2.2.3 Reverse innovation

Reverse innovation or 'trickle-up innovation' is closely related to frugal and inclusive innovation as an innovation originating in the developing world. However, it differs because the innovation is then encouraged to spread to the developed world. According to Govindarajan and Trimble (2012), reverse innovation takes place when a good or service developed in and for a developing country context, such as battery-operated medical instruments because of unreliable power infrastructures, are then sold as innovations in developed countries thus opening up new markets. Traditionally, a multi-national company markets existing products and services in developing countries by paring them down to basic and inexpensive features, but still targets the richest economic segments. Reverse innovation, in contrast, takes locally developed products and services from developing countries that have already been successful there, and adapts them for the global market.

Prahalad (2009) enumerates five features of goods and services originating in developing countries which might give them a marketing edge in developed markets through reverse innovation: affordability; leapfrog technologies; service ecosystems; robust systems; and add-on applications. According to Carus (2012) a sector

[19] http://ideas4development.org/en/frugal-innovation-new-approach-pioneered-in-the-global-south/

where reverse innovation seems to have had some success is in global health systems and especially in rural health services through skills substitution; decentralisation of management; creative problem-solving; education in communicable disease control; innovation in mobile phone use; low technology simulation training; local product manufacture; health financing; and social entrepreneurship. Other archetypal examples include the ICT innovations emanating from Kenya, such as M-Pesa ('M' for mobile, 'pesa' is Swahili for money) which is a mobile-phone based money transfer and micro-financing service which is currently the most developed mobile payment system in the world allowing users with a national ID card or passport to deposit, withdraw, and transfer money easily with a mobile device with no need of a bank account. Another example that is now having a global impact is Ushahidi, a non-profit software company that develops free and open-source software for information collection, visualisation, and interactive mapping. The company's products and services have been used over the last five years by local volunteers to map Kabira, the world's largest shanty town on the outskirts of Nairobi, where no reliable maps had existed before, and is now being used in many other developing as well as developed country contexts, such as response tools for emergencies and natural catastrophes.

3.2.2.4 Summary and overview

In terms of innovation theories arising from the bottom or from development practitioners on the ground, three stand out. Firstly, the bottom of the pyramid (BoP) theory focuses on the approximately 4 billion people globally, which are at the same time both the poorest and largest group. They are thus a demographic which can be treated by suppliers of goods and services as a huge and rapidly growing market. In addition to being a new potential market for multi-national and global trade, the BoP can also be seen as potential partners and innovators in creating new business models that mutually benefit both companies and communities.

Secondly, so-called frugal and inclusive innovation attempts to reduce to the minimum possible the cost and complexity of a good or service and its production. This often involves selling through unconventional distribution channels to consumers who have traditionally been largely overlooked. However, unlike in the BoP approach, frugal and inclusive innovation focus on the creativity and ingenuity of people in resource-poor contexts being driven by this very scarcity to innovate in new ways with a significant focus on affordability. On the other hand, behavioural theories about how individuals actually behave in situations of scarcity are also being developed which purport to show that, although frugal and inclusive innovation are real and important, this does not divert from the need to tackle this scarcity. This is because the vast majority of people and communities do not have the cognitive capacity to innovate in ways which will make any significant difference to their lives. Thus, better governance is required to create the framework conditions in which resource poor people can focus directly on solving their underlying social needs rather than being constantly diverted to tackle a continuing series of scarcity crises.

Third, reverse innovation or 'trickle-up innovation' is closely related to frugal and inclusive innovation as referring to an innovation seen first, or likely to be used first, in the developing world, but the difference is that the innovation is encouraged thereafter to spread to the developed world. Reverse innovation takes place when a good or service developed in and for a developing country context, such as battery-operated medical instruments because of unreliable power infrastructures, are then sold as innovations in developed countries thus opening up new markets.

In summary, these innovation theories developed and applied largely in the development context show how poor and often marginalised groups can also be seen as potential consumers, producers and business partners as well as innovators in their own right, rather than passively remaining dependent on the developed world's social and economic structures and cultures. Through their own independent social and economic innovation systems, they can start from where they are, use their own resources and ingenuity, in combination where relevant with Western and global resources, to address their own particular social needs and support transformative social change in their own way.

This clearly has strong relevance for theory development in social innovation, both in relation to objectives and impacts, as well as content, based on addressing the real social needs of individuals and communities, such as for employment, education, health and prosperity, especially in local contexts. Moreover, a specific focus of the innovations outlined in this section is their relevance for the processes of social innovation, in particular the openness, inclusiveness and participatory nature of the innovation, as well the focus on local resources and innovative capacity not directly reliant or beholden to outside demands or inputs.

The innovations presented in this sub-section are not directly aimed at, or related to, systemic societal change, but to more bottom-up, micro and perhaps piecemeal approaches. However, cumulatively and with the right supports for scaling up, there does seem to be good potential to impact the meso and macro societal levels.

3.2.3 Concepts and approaches to social innovation in development contexts

In this sub-section, social innovation concepts and approaches which have largely been derived in the development context are assessed from a theoretical perspective. In each case the relevance for social innovation is examined.

3.2.3.1 Theory of change

The concept of theory of change (ToC) first emerged in the mid-1990s in response to the challenge of assessing the impact of complex social development programmes. Weiss (1995) argued that the assumptions behind such impact were poorly articulated and those involved were unclear about how the change process would unfold. Consequently little attention was paid to the sequence of changes necessary to reach a longer term goal. This lack of clarity not only made assessment difficult but also reduced the likelihood that all important factors would be addressed. ToC was developed in order to use participatory approaches to ensure all stakeholders are involved in describing the set of assumptions that explain both the steps that lead to the long term goal and the connections between programme activities and outcomes that occur at each step, whether at programme, organisational and project levels. Although there are many variations, the basic components, which are often depicted in diagrammatic form, consist of: a big picture analysis of how change happens in a specific context and thematic area; an articulation of an organisation or programme pathway in relation to this; and an impact assessment framework which is designed to test both the pathway and the underlying assumptions about how change happens.

According to Clark & Taplin (2012), the identified changes are mapped as outcomes pathways which show each outcome in logical relationship to all the others, as well as their chronological flow. The links between outcomes are explained by 'rationales' or statements of why one outcome is thought to be a prerequisite for another. This mirrors the 'logic models' of the more traditional 'logical framework approach' but whilst the latter have developed an 'implementation theory' behind their work, they lack an underlying 'theory of change' (Funnell & Rogers, 2011). ToC also contrasts with logic models and logframes by beginning with a participatory process to clearly define desired outcomes and to air and challenge everybody's assumptions. The innovation of ToC lies in making the distinction between desired and actual outcomes, and in requiring stakeholders to model their desired outcomes before they decide on forms of intervention to achieve those outcomes (Clark & Taplin, 2012).

ToC thus focuses not just on generating knowledge about whether a programme is effective, but also on explaining how what methods it uses are effective and understanding how this change is actually achieved (Coryn, 2011). Kubisch (1997) and others established three quality control criteria: plausibility referring to the logic of the outcomes pathway, whether it make sense and the outcomes are in the right order; feasibility referring to whether the initiative can realistically achieve its long-term outcomes and impact; and testability referring mainly to the indicators, whether they are relevant and measurable, will yield sufficient information to evaluate success, and whether they will be convincing to necessary audiences. The process of change is not perceived linearly, but rather constantly renewed with numerous feedback loops within a context that can be seen as experimental and socially innovative. Consequently, ToC helps to strengthen monitoring, evaluation and learning.

Just as the development of a ToC is a participatory process, a ToC-based monitoring and evaluation system can be designed in a participatory way. For example, funders and organisers can be involved in choosing the outcomes of greatest interest to them in their decision-making. In similar way, the intended target group and beneficiaries can make an input into which indicators to use, their operationalisation, how to collect data, and the data sources which can be used to track indicators (Patrizi & Patton, 2010).

The demand for better 'theories' to explain development especially at the micro scale of programmes, organisations and projects, led to the formation in 2013 of the first non-profit organisation dedicated to promoting and clarifying standards for ToC. The Center for Theory of Change[20] houses a library, definitions, glossary and is licensed to offer ToC Online by ActKnowledge[21] free of charge. The use of ToC for planning and

[20] www.theoryofchange.org
[21] www.actknowledge.org

evaluation purposes, as well as linking it to systems and complexity theories, has grown enormously throughout the world by governments, international NGOs, philanthropies, as well as international organisations such as the UN.

3.2.3.2 Appreciative inquiry

The appreciative inquiry (AI) model has some similarities with ToC in that it is driven by the concept of desirable goals. AI is based on the assumption that a focus on problems and asking questions about how to solve them, which is the traditional approach to tackling societal issues, will tend to focus our attention on particular pre-determined path directions and goals so that stakeholders become stuck in a path-dependent mindset. This is what Cooperrider & Srivastva (1987) define as the 'deficiency model' approach, i.e. asking questions such as *"where are we deficient?"* and therefore *"what needs to be fixed?"*. They argue instead for a new positive thinking AI approach that will enable new theories and models of organising, planning for the future and improving society to be developed, which will often look very different from those derived from just trying to solve quite specific problems. According to Bushe (2013), AI *"is a method for studying and changing social systems (groups, organisations, communities) that advocates collective inquiry into the best of what is in order to imagine what could be, followed by collective design of a desired future state that is compelling and thus does not require the use of incentives, coercion or persuasion for planned change to occur."*

Various authors have articulated a set of basic AI principles, such as the eight proposed by Hammond (1996):

1. In every system, organisation or group there are things which function well (identify strengths).
2. What we focus on becomes our reality (select focus).
3. The language we use creates our reality (select form).
4. Reality is created in the present so there are many realities (discover the reality of others and select which you wish to help create).
5. In a process where questions are put to systems, organisations and groups influence takes place (use questions and choose them with care).
6. People have more self-confidence when they research the future if they start from a reality they know functions well (start by valuing what there is).
7. The things you take with you into the future should be the best (collect the 'gold' together and leave the 'stones' behind).
8. It is important to value difference (do things together).

Appreciative inquiry attempts to envision the future and formulate questions to foster positive relationships and build on the potentials of people, organisations or situations. A typical AI model deploys a cycle of 4 processes:[22]

i. Discover: the identification of organisational processes that work well.

ii. Dream: the envisioning of processes that would work well in the future.

iii. Design: planning and prioritizing processes that would work well.

iv. Destiny or deploy: the implementation (execution) of the proposed design.

A basic tenet of AI is that the problem-oriented approach gets stuck in solving a problem to reach an already identified goal. The AI approach on the other hand involves identifying goals during the process, so these are not pre-determined to 'solve' the wrong problems or to aim for a goal no one really wants. This can be contrasted in the following table 6 (Thybring, 2012):

[22] http://www.new-paradigm.co.uk/Appreciative.htm.

Problem-orientated development approach	Value-based development approach (AI)
Basic principle: people are a problem to be solved	Basic principle: people are a mystery to be investigated
Desire for development and change	Desire for development and change
Identification of problems to solve	Identification of strengths *("the best of what we have")* to build on
Analysis of causes	Dreaming about what we wish for
Analysis of possible solutions	Innovating/creating *"how it can happen"*
Development of an action plan based on solving problems	Development of an action plan based on desirable futures

Table 6: Problem-orientated development approach and value-based development approach (AI)

Building on frameworks like this, Bushe (2007) nevertheless argued that sometimes AI can place too much focus on 'positivity' but insufficient on what he terms the 'generativity' it should lead to. Positivity on its own might feel invigorating, but it also needs to lead to transformational changes through the creation of new ideas (generativity) to see existing problems in a new light. The difference between the two is according to Bushe that in the latter case AI must be directed at situations that people are sufficiently concerned about to really desire change.

3.2.3.3 Summary and overview

In terms of concepts and approaches which have been largely derived in the development context, two stand out. Firstly, the concept of theory of change (ToC) which emerged in the mid-1990s as a participatory response to the challenge of assessing the impact of complex societal development programmes. The assumptions behind such impact were poorly articulated and the stakeholders involved were unclear about how the change process would unfold. Consequently, little attention was paid to the sequence of changes necessary to reach a longer-term goal. This lack of clarity not only made assessment difficult but also reduced the likelihood that all important factors would be addressed. ToC thus focuses not just on generating knowledge about whether a programme as a whole is effective, but also on explaining precisely how the methods it uses are effective and understanding how this change is actually achieved. Change processes are no longer seen as linear, but as having many feedback loops that need to be understood in a process that can be seen as experimental and socially innovative.

The appreciative inquiry (AI) model has some similarities with ToC in that it is based on a positive approach to desirable goals where things which work well and positive attributes are taken as the starting point. AI theory contends that a focus on problems and asking questions about how to solve them, which is the traditional approach to tackling societal issues, will tend to focus our attention on particular pre-determined path directions and goals, so that stakeholders become stuck in a path-dependent mind-set. A basic tenet of AI is that the problem-oriented approach gets stuck in solving a problem to reach an already identified goal, whilst the AI approach involves identifying goals during the process, so are not pre-determined to 'solve' the wrong problems and to aim for a goal no one really wants.

In summary, these concepts and approaches have developed participatory responses to the need to assess the impact of complex societal development programmes where the assumptions were poorly articulated and those involved were unclear about how the change process would unfold. They also attempt to build on existing strengths, positive attributes and things which work well, often through experimental and socially innovative approaches, rather than simply looking for problems and attempting to tackle them, thus avoiding a path-dependency outcome.

Like the innovations and theories presented earlier, this has a clear and strong relevance for theory development in social innovation, both in relation to objectives and impacts, as well as content, based on addressing the real social needs of individuals and communities whatever these are, as they see, feel and

understand these themselves. In addition, a specific focus of the concepts and approaches outlined in this section is their relevance for the processes of social innovation, in particular the bottom-up, self-driven and self-controlled practices involved in which traditional development paths are shunned or revised based on what the community itself sees as its most important assets and goals. Indeed, these approaches are largely about the process of change itself, where goals are often identified during rather than prior to the process, and the recognition that these processes are rarely linear but instead have many feedback loops that need to be understood within the context of experimentation and social innovation.

The concepts and approaches presented in this sub-section are not directly aimed at, or related to, systemic societal change, but to more bottom-up, micro and perhaps piecemeal approaches. However, cumulatively and with the right supports for scaling up, there does seem to be good potential to impact the meso and macro societal levels.

3.3 CONCLUSION

Relevance for social innovation theory and further research

The above sub-sections with their summary conclusions about the relevance for social innovation theory show that the underlying rhythms of the theoretical debate around development issues can, at its simplest still be characterised as being between the neo-liberals and their opponents each with their theoretical rationales, although today increasingly at a more sophisticated and in many ways through more evidence-driven and bottom-up approaches.

The early development debate was largely driven by classical economics, and despite the brief emergence of the more bottom-up basic needs approach of the 1970s attempting to look at the real lives of people and communities, the neo-liberals re-asserted their dominance in the 1980s. Since then, however, good theoretical progress has been made alongside and (almost in spite of) the hegemony of this largely top-down market-based approach, as shown by the innovation theories, concepts and approaches discussed above. Social innovation's own recent rise to greater prominence, especially since 2000, is an important part of these new developments and, especially given its wide ranging scope of interest and relevance, should be well poised to begin to help weave a more comprehensive theory and conceptual toolbox over the next few years, to which SI-DRIVE will make a strong contribution.

Relevance of development theory for the five key dimensions of social innovation

The wide range of development theories reviewed in this chapter can both directly and indirectly provide inputs to further refining and developing the five key dimensions of social innovation, as summarised in the following.

1. **Concepts and understanding of social innovation including the relationship to technology and business innovation**
   - Theories and concepts of sustainability and globalisation can help align large scale and macro (social and societal) changes with grassroots and micro resources, processes and impacts. Sustainability theories and approaches also underline the importance of longer-term objectives and processes through greater integration across and between economic sectors and social structures that are firmly contextualised, impact-oriented and multi-actor.

   - Post-development and human development theories reveal the fundamental cultural and mental constructivism which underlines much theorising and practice of social innovation, and this also helps to strengthen understanding of the behavioural and psychological processes and contexts in which innovations take place. This emphasises, in turn, the importance of local cultures and local knowledge in addressing social need challenges, including at the level of systemic social change. Embedded within these new approaches are issues like feminism and welfare economics, as well as developments of the sustainability concept which employ theories of ecology and ecosystems which are not simply biological or physical but also social and cultural.

- More recent developments of post-development, human development and related theories emphasise the power of ICT to enable instantaneous communication and linking up to the global scale between different actors, as well as to empower new actors and to access and better exploit new resources.

- Reverse innovation theories show how trickle-down innovations can be supplemented by trickle-up processes when social, economic and technical innovations emanating from frugal conditions can be scaled much more widely, further empowering and integrating poor societies.

- Frugal and inclusive innovation can also contribute behavioural and cognitive capacity concepts for better understanding how individuals and communities actually innovate and are able to meet their own social needs.

2. **Objectives and social demands, societal challenges and systemic change**
   - Development theories generally focus strongly on addressing and attempting to solve poverty and inequality as large scale societal challenges, as well as the challenges of job creation, wellbeing, education and health, all of which also have very specific local manifestations.

   - Post-development and human development theories strengthen integrative and multi-disciplinary approaches, for example through concepts like sustainability and eco-system development. More recently, they have begun to focus on the new dimensions of morality, ethics, fairness and justice in innovation and societal change, which helps underline the need to see economic and development processes as just as much cultural, social and institutional as they are technological, financial and market-based. Moreover, this involves greater emphasis on the capabilities of people and communities rather than only their needs, which is also the theme of the appreciative inquiry approach.

   - Bottom of the pyramid theories focus on resource poor people and communities and how they can be mobilised to both meet their own objectives and needs and become important actors in their own right. This includes becoming potential partners and innovators in creating new business models that mutually benefit both companies and communities.

   - The theory of change focuses not just on generating knowledge about whether a programme as a whole is effective, but also on explaining precisely how the methods it uses are effective and understanding how change is actually achieved.

3. **Governance, barriers and drivers (including the role of social entrepreneurship, networks, user involvement) of social change and development**
   - Development theories rely strongly on a better understanding of how specific social and institutional frameworks in different places and times shape innovations. This manifest contextualisation helps to circumvent barriers erected by mindsets and culture, and to exploit the otherwise unexploited drivers inherent in local frameworks.

   - Post-development and human development theories underpin new understandings of governance issues that are open, transparent, participative and empowering. They provide new types of governance models in public, commercial and civil realms, such as shared value, as well as both sharing and collaborative economies and societies. In this context, ICT is seen as a fundamental and transformatory tool opening new ways of innovating as well as improving and making existing processes more efficient and effective. Network concepts and theories are also being radically transformed by new technologies, especially ICT and social media, which have the potential to considerably enhance the scaling and spread of innovations, as well as to enable rapid imitation and copying across large distances.

   - Theories of frugal and inclusive innovation show how behavioural and cognitive capacity concepts deriving from scarcity theories also require better governance to create the framework conditions in which resource poor people can focus directly on solving their underlying social needs rather than being constantly diverted to tackle a continuing series of scarcity crises.

4. **Social innovation cycle and processes (prompts, proposal, prototypes, sustaining, scaling up, systemic change)**

- Development theories provide new insights into bottom-up processes that are contextualised in distinctive local conditions and by specific local needs involving multiple actors.

- Reverse innovation and bottom of the pyramid theories related to innovations emanating from resource-poor societies, show how their own innovations have the potential for scaling, both across similar contexts as well as to resource-rich societies, further empowering the poor through bottom-up and grassroots processes.

- Frugal and inclusive innovation theories underline the importance of simplification in an innovation process using few resources, and how this can propel innovators to focus on the social needs which must be addressed in completely new ways rather than falling back on familiar tried and tested conventional solutions which are often imported from well-endowed countries and companies.

- The theory of change focuses attention on the sequence of changes and processes necessary to reach a longer-term goal using participatory processes to meeting social needs. Change processes are no longer seen as linear, but as having many feedback loops that need to be understood in a process that can be seen as experimental and socially innovative.

- Appreciate Inquiry (AI) focuses on things that are likely to work well, so that positive attributes are taken as the starting point of the innovation process. A focus on problems and asking questions about how to solve them, which is the traditional approach to tackling societal issues, will tend to focus our attention on particular pre-determined path directions and goals, so that stakeholders become stuck in a path-dependent mind-set. A basic tenet of Appreciative Inquiry is that the problem-oriented approach gets stuck in solving a problem to reach an already identified goal, whilst the AI process involves identifying goals during the process, so are not pre-determined to 'solve' the wrong problems and to aim for a goal no one really wants.

5. **Resources, capabilities and constraints, including finance and regulations of the finance industries, human resources, empowerment**

- Development theories open new insights into empowerment through involving and activating local actors at the grassroots, thereby drawing on many un- and under-used assets that would otherwise not materialise. These can involve all types of resources, including human, financial, organisational, material and infrastructural, as well as networks and relationships.

- Frugal and inclusive innovation theories show how social innovation can be deployed to meet the needs of resource poor people and communities for the first time, as well as in new ways, by focusing on affordability, typically by harnessing their own resources and empowering their own creativity and ingenuity.

- Appreciate Inquiry is a conceptual approach examining the attributes, assets, and capabilities a community already has, rather than the problems/needs they (think) they have, so can lead to greater potential social innovation impact.

Suggestions for further research

Some of the tentative conclusions emerging from development theories and their relevance for social innovation also lead to some very provisional suggestions for the SI-DRIVE research agenda within this context.

- Many development theories and development practices are predicated on their overall purpose to generate beneficial and often transformatory and systemic societal change through directly meeting social and economic needs, especially in contexts of poverty, scarcity and social distress. We need much better understanding of the links especially in a social innovation context, and given the global remit of SI-DRIVE.

- We need to understand much better how social innovation plays an important role in the new forms of sharing and collaborative economies and societies currently emerging mainly through bottom-up processes, and how these meet real social needs.

- What is the role of digital social innovation (i.e. social innovation enabled or even driven by ICT) in development efforts and particularly in contexts of poverty, scarcity and social distress?

- How can some of the more recent development theories arising in developing country and emerging country context, such as BoP and frugal and inclusive innovation, inform social innovation theory development and derive benefit from it? Of particular relevance here would appear to be the openness, inclusiveness and participatory nature of the innovation, as well the focus on local resources and innovative capacity not directly reliant or beholden to outside demands or inputs.

- How can some of the more recent concepts and approaches to social innovation arising from development contexts, such as the theory of change and appreciative inquiry, inform social innovation theory development and derive benefit from it? Of particular relevance here would appear to be their participatory responses to the need to assess the impact of complex societal development programmes, as well as building on existing strengths, positive attributes and things which work well. Important in this context are experimental and socially innovative approaches, rather than simply looking for problems and attempting to tackle them, thus avoiding a path-dependency outcome.

- Research focus should also be on how some of these their concepts and approaches derived in the development context are based on addressing the real social needs of individuals and communities whatever these are, as they see, feel and understand these themselves. Important also would appear to be the bottom-up, self-driven and self-controlled practices involved in which traditional development paths are shunned or revised based on what the community itself sees as its most important assets and goals. Indeed, these approaches are largely about the process of change itself, where goals are often identified during rather than prior to the process, and the recognition that these processes are rarely linear but instead have many feedback loops that need to be understood within the context of experimentation and social innovation.

- Although many of the innovations, concepts and approaches presented in the second half of this chapter are not directly aimed at, or related to, systemic societal change, but instead to more bottom-up, micro and perhaps piecemeal approaches, they nevertheless might cumulatively, and with the right supports for scaling up, have good potential to impact the meso and macro societal levels.

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SOCIAL INNOVATION STUDIES

4 SOCIAL INNOVATION PROCESS AND SOCIAL ENTREPRENEURSHIP

Anna Davies (YF)

4.1 INTRODUCTION

The central challenge of the SI-DRIVE project is to better understand and describe the relationship between social innovation and social change. To do this requires developing a comprehensive and theoretically sound understanding of the concept of social innovation. In this first deliverable of Work Package 1 on theory, our task is to review existing literature within social innovation and closely related fields to examine how this work enables us to enhance our understanding of the theoretical underpinnings and mechanisms of social innovation.

The focus of this chapter is twofold. First we will look at the (limited) literature on the idea of a social innovation process or life-cycle. There is much debate and research about how social innovation can be supported systematically. We will explore different models which have been developed to try and explain how different stages of the innovation 'life cycle' are interrelated. We will also consider the suitability of these models and their utility in exploring the relationship between social innovation and both social entrepreneurship and social change.

Second we will examine what can be learnt from the field of social entrepreneurship and social enterprise. This is a field that has grown considerably in the last ten years, being enthusiastically embraced by governments, business schools and academics. It is very closely related to discussions of social innovation and sometimes the two phenomena are discussed as if they were synonymous.

We will explore the different schools of thought related to social entrepreneurship and the contexts from which these emerged. We then examine some of the literature that considers the problematic of social enterprises – what are their distinctive features and challenges? Next we consider what the field of entrepreneurship has to say about growing and scaling social impact. We then turn to look more explicitly at the relationship between social entrepreneurship and social change.

Finally, we examine how an understanding of social entrepreneurship can deepen our understanding of social innovation – how should we understand the relationship between these two discourses? Overall we argue that although we should recognise the important overlap between social innovation and social entrepreneurship, we also need to be clear where the former goes wider than, or parts company with the latter. This is particularly important given that narratives around social entrepreneurship are particularly dominant at present. One of the tasks of the SI-DRIVE project will therefore be to consciously carve out a different emphasis and narrative for social innovation where we think this is necessary. We end this chapter with a summary of key findings and further questions that we may want to pursue through the course of the SI-DRIVE project.

4.2 THE SOCIAL INNOVATION LIFE-CYCLE

There has been relatively limited explicit discussion within social innovation literature of the idea of a 'life cycle' or stages of social innovation. Certainly, there is discussion of the idea of diffusion or scaling as a distinctive stage within social innovation (Dees, Anderson, & Wei-Skillern, 2004; Westley, & Antadze, 2010). And there tends to be agreement both that there is a key difference between invention and innovation (see chapter 1) and that it is important to distinguish between the two (see for example the recent definition of social innovation put forward by the WILCO project, which includes the criteria, *"ideas, turned into practical approaches"* (Evers, Ewert, & Brandsen, 2014, p. 11).

Less common are attempts to lay out distinctive stages of social innovation. Although a challenging undertaking, life-cycle models are useful tools for practitioners and policy-makers, with the potential to help justify the need for resources and to define why, how and when they should be allocated.

Bates (2012) proposes a three stage model for social innovation. This comprises 'investigation' - *"defining the social challenge, determining unmet needs and examining opportunities to achieve them"*; 'innovation' *"devising a*

workable solution and a powerful, effective social business model"; and 'implementation' *"to ensure the unique solution creates shared value among all stakeholders and engages techniques to ensure that ideas don't become orphan innovations"*. This model however does not say anything about spreading, scaling or diffusing as a further stage.

Murray, Caulier-Grice and Mulgan (2010) propose six stages of social innovation, as set out in the figure 2 below:

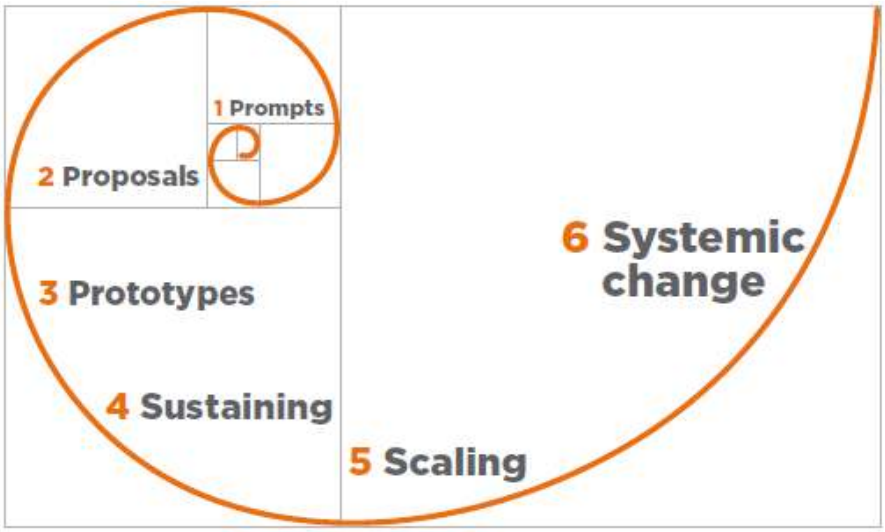

Figure 2: The process of social innovation (Murray et al., 2010, p. 11)

- Prompts – which highlight the need for social innovation
- Proposals – where ideas are developed
- Prototyping – where ideas get tested in practice
- Sustaining – when the idea becomes everyday practice
- Scaling – growing and spreading social innovations
- Systemic change – involves re-designing and introducing entire systems; will usually involve all sectors over time

This is also the framework introduced in the TEPSIE project (Young Foundation, 2012). Here though, a number of caveats are made concerning the model, for example that *"many of these stages overlap and may be undertaken in a different order"* and that *"feedback loops exist between every stage, which makes the process iterative rather than linear"* (Young Foundation, 2012, p. 34). Although the use of a spiral is intended to underline the fact that social innovation processes are not linear, setting out a logical order of stages does hold the danger of implying that this is a rational, orderly process that one can decide to undertake. On the contrary, scholarship on innovation processes makes clear that the journey from idea generation to diffusion rarely follows a predictable, staged pattern (van de Ven, Polley, Garud, & Venkataraman, 1999). It is more accurate to categorise innovation processes in organisations as *"complex, iterative, organic and untidy"* (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2005).

In particular the process of generating proposals and ideas, and prototyping and piloting can be highly iterative and the development of new ideas and adaptations of approaches may well continue long after an innovation becomes sustainable or starts to scale. This experimental process inevitably means that many ideas never make it off the ground. In many cases, plans are abandoned, prototypes fail and innovators start all over again. Failure is a natural part of the social innovation process and of learning what works. One study of 1990s US

'ecopreneurs' (generally characterised as innovative environmentally and socially minded entrepreneurs) identified that between 1991 and 2010, one-third of an original sample of 94 enterprises had failed (Holt, 2011). The literature on failure is extremely limited, however, and in the context of social enterprise two main obstacles have been identified: a prevailing assumption that third sector activities should be viewed in a positive light; and that the conceptualisation of failure and the associated data collection and reporting is still problematic (Scott, 2010). Evidently there is a need for social innovators and social entrepreneurs to be more open about the demise of promising ventures and to share those learnings.

However, even if we acknowledge that this model is intended as a helpful framework rather than a representation of reality, it raises other significant questions. For example, should we think of scaling as a 'stage' within the social innovation process? After all, so long as an innovation goes beyond an idea to become a practice, it is still an innovation regardless of whether it becomes widespread or remains localised.

More problematic still is the inclusion of 'systemic change' as a final 'stage' within the process. Adding this as a final stage in the process of the journey of a single innovation strongly suggests that systemic change can be achieved through the scaling of any one innovation. However, the very idea of systemic change implies that multiple institutions, norms and practices will be involved, and that multiple kinds of complementary innovations will be introduced. It might be more accurate visually to think of many spirals together leading to systemic change.

Finally, another limitation of this model is that it appears to suggest that social innovations will continue in perpetuity. Evidently this is misleading; apart from the fact that many social innovations fail there is also the issue that successful social innovations may become embedded in routines, norms and structures and thereby institutionalised as a widespread social practice. Once the innovation has become institutionalised, new needs and demands might arise, leading to fresh calls for social innovation.

This is well reflected in Frances Westley's concept of the 'adaptive cycle'. She uses this concept as a heuristic for analysing the dynamics that drive social innovation. This adaptive cycle (see figure 3) charts the development of a social innovation from idea to maturity.

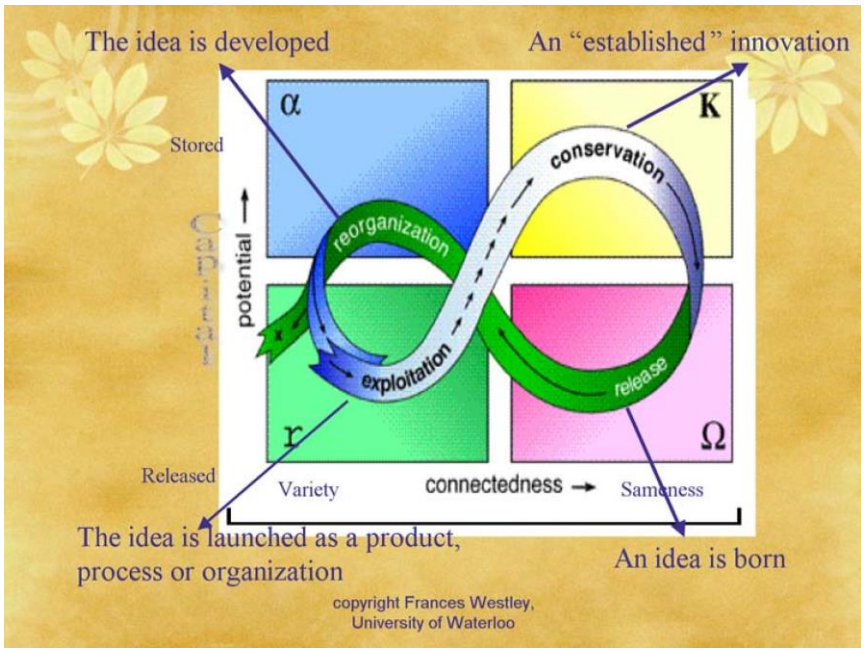

Figure 3: The adaptive cycle (Westley, 2008)

For Westley (2008), the concepts of social innovation and resilience, namely, the *"capacity to adapt to shocks and changes while maintaining sufficient coherence for identity"* (p. 3), are closely tied together. Indeed, for Westley, *"social innovation is an important component of being resilient – new ideas will keep a society adaptable, flexible and learning"* (Moore, Westley, Tjornbo, & Holroyd, 2012). This is reflected in her description of the

process of social innovation: *"once an idea or organization reaches the maturity (conservation) stage it needs to release resources for novelty or change and reengage in exploration in order to retain its resilience. The release and reorganization phase is often termed the "back loop" where non-routine change is introduced. The exploitation and conservation phases are often termed the "front loop" where change is slow, incremental and more deliberate"* (Westley, 2008, p. 3). To highlight the fact that the process of social innovation is not linear, Westley has depicted it as an infinity loop. There are a number of features of Westley's model which are important and relevant to our broader understanding of social innovation – such as the link between resilience and social innovation, and the notion that while there may be various phases or stages in generating social innovations, the process is not linear.

Ultimately, life-cycles and social innovation process frameworks are useful from a practitioner perspective but are conceptually flawed. Trying to tie these frameworks to a thorough exploration of how social innovation leads to social change is likely to be problematic. It is a key question for the field, and for the SI-DRIVE project in particular, to consider how social innovations in aggregate may contribute to social change across whole systems. What impact do they have? This is a much more complex question that positing systemic change as simply 'the next step' in the social innovation process. One of the key research questions for the remainder of this project will therefore be: how do we understand the relationship between the process of developing individual social innovations and wider social change?

4.3 SOCIAL ENTERPRISE AND SOCIAL ENTREPRENEURSHIP

The terms 'social enterprise', 'social entrepreneurship' and 'social entrepreneur' are all closely connected to the concept of social innovation. In this section, we examine the relationship between these concepts, some of the scholarship around them and how this relates to our central questions about social innovation and social change.

4.3.1 Social enterprise and social entrepreneurship: unpacking schools of thought

There has been a major uptake in scholarship around these three concepts in the last ten years; two journals have now been created to deal with them explicitly, *The Social Enterprise Journal* and *The Journal of Social Entrepreneurship*. Similarly to debates on social innovation, definitional questions have persisted because these are concepts with blurred boundaries and multiple interpretations with authors still *"apparently unable to find agreement on what it means to be a social entrepreneur, to start a social enterprise or to write on social entrepreneurship"* (Alegre, 2013). Indeed, Young characterises social enterprise as *"two little words, interpreted in many different ways"* (Young, 2009, p 22).

Defourny and Nyssens (2010) help to situate these different interpretations in their historical context, outlining the different ways that ideas about social enterprise have emerged in European and US contexts. In the 1990s, discussion of social enterprise emerged in connection with European social cooperatives. In particular, in many European countries, social enterprises were strongly associated with employment creation or work insertion initiatives. For example, in Finland, the 2003 Act on Social enterprises reserved this term for the field of work integration concerned with creating market oriented enterprises for employing people with disabilities or the long term unemployed. In contrast, in the United States, discussion of social enterprise emerged in the context of non-profits expanding their commercial activities to fill in the gaps following reductions in federal funding for their activities.

Another important strand of thinking around entrepreneurship from the US was embodied by Bill Drayton and the Ashoka movement which highlighted the role of particular individuals – social entrepreneurs - who could bring about social change by accessing and combining resources in new ways. One of the most citied definitions of the social entrepreneur comes from Dees (1998) who states that:

"Social entrepreneurs play the role of change agents in the social sector, by:

- *Adopting a mission to create and sustain social value (not just private value),*
- *Recognizing and relentlessly pursuing new opportunities to serve that mission,*
- *Engaging in a process of continuous innovation, adaptation, and learning,*

- *Acting boldly without being limited by resources currently in hand, and*
- *Exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created."* (p. 4)

In the US context, the work of these actors has been highlighted and supported in particular by foundations. A good example is the Skoll Foundation which produced and distributed *Uncommon Heroes*, a film series looking at the work of 18 social entrepreneurs who exemplify how *"one person can change the world"*.[23]

Drawing on these historical contexts, Defourny and Nyssens (2012) outline three schools of thought within social enterprise and social entrepreneurship which help to make sense of the breadth of interpretations and understandings that we currently see. These are summarised in Figure 4:

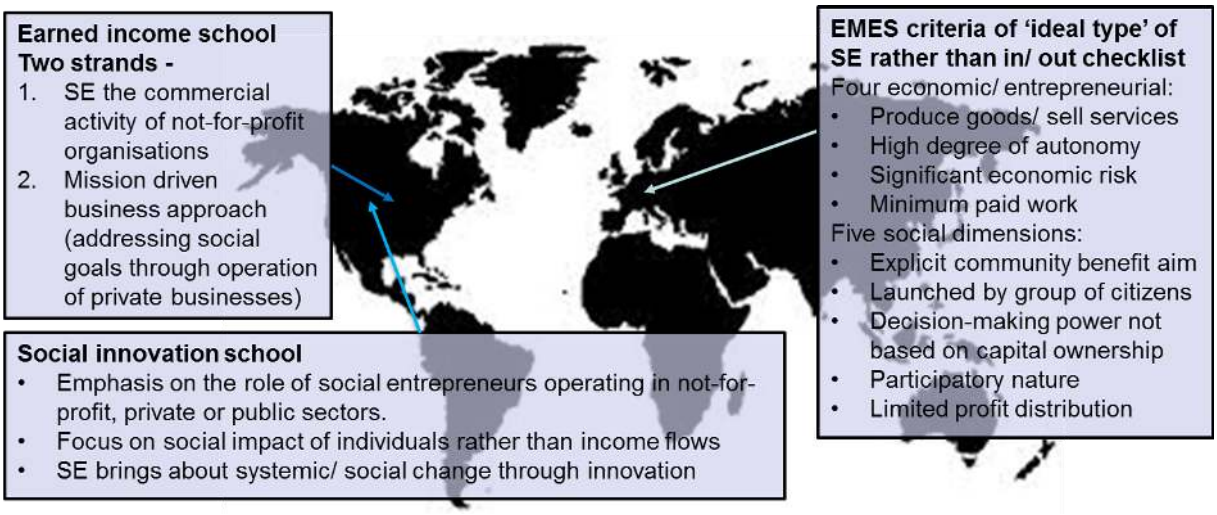

Figure 4: US and European 'school of thought' on social enterprise and social entrepreneurship

First, originating from the US, there is the 'earned income school of thought'. This comprises two strands – the first understands social enterprise as the commercial activities of non-profit organisations. A good example of this is the Social Enterprise Alliance which in the 1990s stated that a social enterprise is *"any earned-income business or strategy undertaken by a non-profit to generate revenue in support of its social mission"* (Defourny & Nyssens, 2012, p. 73). The second strand in the 'earned income' school extends the understanding of social enterprise beyond non-profits to encompass all forms of business initiatives, in what could be termed a 'mission driven business approach'. An example here is Young's broad definition of social enterprise as *"activity intended to address social goals through the operation of private organisations in the marketplace"* (Young, 2009, p. 23). The emphasis within this school is on social enterprises as combining social and economic goals, and not necessarily as vehicles for innovation.

Second, following Dees and Anderson (2006), Defourny and Nyssens identify the 'social innovation school' coming out of the US. Here the emphasis is on social enterprise as the activities of social entrepreneurs, who may be setting up new non-profits, but who equally may be operating in the private or public sectors. In this school there is less concern about income flows and more on the outcomes and social impact achieved by individuals. There is also often an emphasis on the idea of social entrepreneurship as bringing about systemic change through innovation.

Third, there is the EMES European Research Network understanding of social enterprise. The work of academics in EMES has been to develop criteria for an 'ideal type' of social enterprise rather than to create a 'check-list' by which we could determine what counts as 'in or out'. The EMES understanding includes four criteria related to economic and entrepreneurial dimensions:

- a continuous activity producing goods and/or selling services;

[23] (http://www.skollfoundation.org/approach/uncommon-heroes)

- a high degree of autonomy;
- a significant level of economic risk;
- a minimum amount of paid work.

And there are five indicators related to the social dimensions of social enterprises:

- an explicit aim to benefit the community;
- an initiative launched by a group of citizens;
- a decision-making power not based on capital ownership;
- a participatory nature, which involves various parties affected by the activity;
- a limited profit distribution.

Looking across these three schools of social enterprise, what are some of the key points of convergence and difference? Defourny and Nyssens suggest five that are particularly important.

4.3.1.1 Social value

All three schools make clear that a defining feature of social enterprises is the emphasis on social value as being an explicit and primary aim as opposed to distribution of profit. In itself, of course, 'social value' is a contested term which is also subject to multiple interpretations. Nonetheless, it is broadly understood by most to mean a value or benefit which accrues to society or is for the public good, rather than for private or individual gain. Yet at the same time, to fix a definition *"inevitably requires exclusionary and ultimately political choices about which concerns can claim to be in society's 'true' interest"* (Cho, 2006, p. 36).

However, for the mission-driven business approach there is some debate as to the extent to which activities of for-profit organisations ought to be considered as social enterprise. In the US there has been a tendency to identify corporate social responsibility activities in such terms. However, as Defourny and Nyssens (2012) point out, the danger in this is that it might lead to considering any social value generating activity as belonging to the wide spectrum of social entrepreneurship, *"even if this activity remains marginal in the firm's overall strategy"* (p. 73). Others see this prospect as less problematic, for example Young and Lecy (2012) have suggested that we can draw an analogy between the diverse universe of social enterprise forms and a 'zoo' in which *"many different 'animals' combine social and market goals in substantially different ways"* (p. 1).

4.3.1.2 Enterprise

Some form of trading or enterprise is also central to all three schools. All agree that social enterprises are not organisations engaged only in activities such as advocacy or grant giving. They must be directly involved in the production of goods and services on an on-going basis. However, there is a distinction in that the European school understands that it is the production of goods and services *in itself* which constitutes the fulfilling of a social mission of a social enterprise. This is certainly the case if we think about work insertion organisations, where the social mission to create employment for a certain group is met by providing them with employment opportunities. In contrast, within the 'commercial non-profit' strand of the 'earned income' school, trading activity need not necessarily in itself constitute part of fulfilling the social mission – it may just represent a source of income to help fulfil that mission.

4.3.1.3 Economic risk

Another common strand in the different schools is that social enterprises must manage risk by securing adequate resources. In the social innovation school where the role of social entrepreneurs is emphasised, there is particular attention to how entrepreneurs aim to exploit all types of resources from donations to commercial revenue. Risk doesn't necessarily come from exposure to the market, but from the fact that the entrepreneur, as the one who established the enterprise, bears the risk for it. In contrast, in the earned income school, there is an assumption that social enterprises are mainly relying on market resources.

4.3.1.4 Governance

One of the key points of difference across the schools is the way they incorporate governance and structural issues into their understanding of social enterprise. It is here that the European EMES school tends to be rather more prescriptive, being much more interested in issues of governance than the US perspectives. While in the EMES formulation, autonomy - and therefore independence from public authorities or for-profit firms - is a key criteria, the other schools are more agnostic about levels of independence. For example, the Social Enterprise Knowledge Network (a partnership between Latin American business schools and Harvard Business School) states that social enterprises can be *"any kind of organization or undertaking engaged in activities of significant social value, or in the production of goods and services with an embedded social purpose, regardless of legal form"* (Austin et al., 2004, xxv).

The EMES formulation is much more concerned about social enterprise as a collective endeavour which contrasts strongly with the social innovation school's emphasis on individual social entrepreneurs. The EMES definition also talks about *"decision-making power not based on capital ownership"* and indeed several of the European legal forms such as the Italian social cooperative and the French 'collective interest cooperative society' require the inclusion of the principle of 'one member one vote'. And while EMES includes a clause about prohibiting or limiting distribution of profits, for the 'mission-driven business' strand and the social innovation school, there is no such requirement and social enterprises may take any legal form, including those which may involve distributing surplus to shareholders.

4.3.1.5 Scaling and diffusion

Finally, Defourny and Nyssens (2010) note that the three different schools tend to have a different understanding of how the growth and diffusion of innovations happens. In the European school, there is a recognition that public policies will usually be a key channel for the diffusion of social enterprise models. In contrast, in the US schools of thought, expansion has been expected via the growth of social enterprises themselves. Underlying this is *"a kind of implicitly shared confidence in market forces to solve an increasing part of social issues in modern societies"* (p. 49). The understanding of growth and scaling of innovation within social entrepreneurship discourse is an issue we return to below.

One thing it is interesting to observe in discussion of these schools of thought is the different weight given to innovation. While there is often an implicit assumption that social enterprises are by nature new, entrepreneurial and innovative, it is only in the second 'social innovation school' that innovation is drawn out as a major defining feature. This is one of the reasons we should be careful about conflating discussion of social enterprises/social entrepreneurship and social innovation.

4.3.2 The distinctive features of social enterprise

Although there has been extensive work unpacking the different meanings and understanding of social enterprise, there is also a significant literature that seeks to describe and respond to the problematic related to social enterprises: what are the unique features and challenges associated with social enterprises?

A common theme among all interpretations of social enterprise is the idea of needing to balance commercial and social objectives. This is seen as the distinctive feature of social enterprise and one of the reasons they require special analysis and research.

According to Galaskiewicz and Barringer (2012) *"the social enterprise is special because it incorporates contradictory institutional logics into its mission and operations"* (p. 52) – for example, the logics of commerce and corporate success on the one hand and social purpose and democratic participation on the other. They are considered 'extreme hybrids': *"based on input traits they would be categorized as firms but based on beneficiaries they would be categorized as charities"* (p. 55). Galaskiewicz and Barringer argue that as a result, social enterprises are *"controversial because they are difficult for audiences to categorise"* (p. 47). This is important because categories enable audiences to *"draw on rules, standards and measures that can be applied against the organisation's performance to evaluate it and hold it accountable"* (p. 52). And if donors and investors are unable to categorise them easily, they are less likely to support them. This makes social enterprises vulnerable; struggling with this 'limbo' position, *"they are likely to embrace the for-profit form"* (p. 63). This is because they are likely to gravitate to a category where performance is easier to measure.

The stability of social enterprise forms is also a frequent concern – both in terms of long term survival and stability in terms of whether they can maintain a balance of social purpose and market success. Young (2012)

points out that while we have good levels of theory around commercial corporations and how they are likely to develop over time, and decent levels of knowledge of non-profit organisations, *"we don't have equivalent theory to understand the longer term roles and status of new forms of social enterprise including whether they are stable or transient"* (p. 23). Young illustrates the special demand on social enterprises with an image of a hill top with valleys on either side which represent commercial and social purpose logics (see figure 5). Those organisations that are true hybrids employing logics of both commercial and social purpose organisations are in a more precarious position because relatively weak forces could push them down into one of the 'valleys' below.

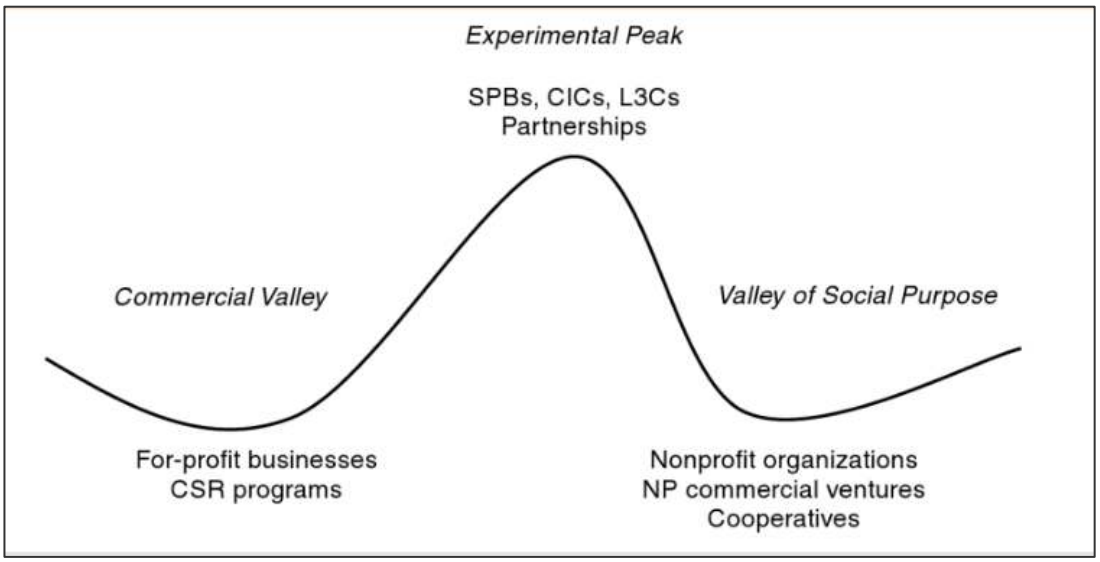

Figure 5: The topography of social enterprise (Young, 2012, p. 52)

Young argues that the particular features of a social enterprise that are most likely to impact whether it can remain stable at the top of the hill are governance and finance. The composition of a governing board and the rules by which it operates will have a major impact on the direction of the organisation. Similarly, the mix of financial sources of support Young (2012) argues can *"make the difference between autonomy and focus on desired mission balance on the one hand and co-option by commercial or governmental interests on the other"* (p. 42).

4.3.3 Social entrepreneurship and scaling

Another major preoccupation within social entrepreneurship discourse has been the growth or 'scaling' of entrepreneurial activities. Indeed, according to Bradach (2010), there may be *"no idea with greater currency in the social sector than the idea of 'scaling what works'"* (p. 27). This is of particular interest for our purposes since theories of how social enterprises or entrepreneurial activities scales relate to the understanding of social change: transformative social change presumably requires at a minimum that innovative practices are spread beyond their original context. In this section we review some of the ways scaling and growth have been discussed in the social entrepreneurship literature.

One early typology of scaling strategies that might be adopted by social entrepreneurs is offered by Dees et al. (2004). They suggest social entrepreneurs may wish to engage in scaling of three types. The first is spreading an organisational model. The second is spreading a programme, defined as *"an integrated set of actions that serve a specific purpose"* (p. 26). And the third is scaling a set of principles. They then identify three mechanisms for scaling, illustrated in the figure 6.

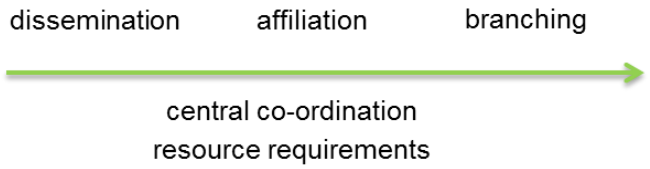

Figure 6: Spectrum of scaling mechanisms (based on Dees et al., 2004)

Dissemination involves *"actively providing information, and sometimes technical assistance, to others looking to bring an innovation to their community"* (p. 28). Affiliation is about creating formal relationships with specific agreements to create an identifiable network. Branching is *"the creation of local sites through one large organisation, much like company-owned stores in the business world"* (ibid.). These three mechanisms for scaling can be thought of as sitting along a continuum: when we move from dissemination to branching, there is an increasing requirement for central coordination and a greater need for resources. In some cases there is clear correlation between what an entrepreneur wishes to scale and the preferred mechanism for doing so. For example, principles are best scaled using a dissemination approach. However, Dees et al. argue that *"any combination is possible and social entrepreneurs need to consider their options before settling on a specific strategy"* (p. 30).

Another set of strategies for scaling social enterprises is offered by Lyon and Fernandez (2012). They looked at case studies of early years childcare providers in the UK to develop a typology of strategies that social enterprises tend to adopt. These are shown in the figure 7.

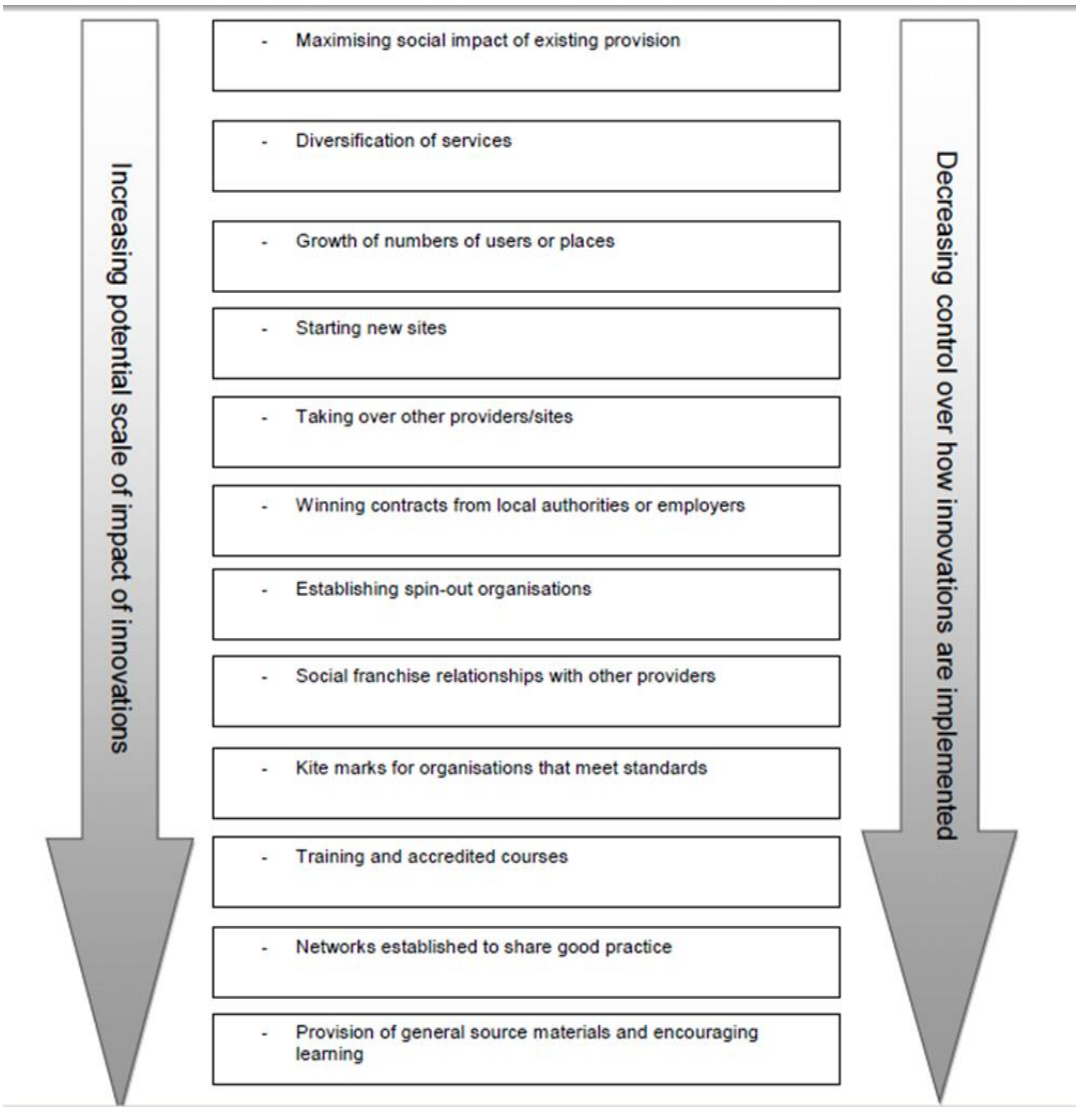

Figure 7: Scaling spectrum (Lyon & Fernandez, 2012, p. 13)

These strategies can be divided into three types. First there are strategies which involve organisational growth. Examples here include setting up new branches of activity, growing the number of individuals they serve, or winning contracts from local authorities. The second type of strategy involves developing formalised relationships with other actors. Examples here include setting up a social franchise or spinning out part of an organisation to form a separate organisation (note that there has been more detailed examination of social franchising as a particular growth strategy for social enterprises – e.g. Tracey & Jarvis, 2007). The last strategy entails open sharing and dissemination of good practice. This could include activities such as developing networks through which good practice can be shared or making materials, toolkits etc. freely available (for example, online) to encourage adoption by a widest possible number of external organisations. Similarly to Dees et al. (2004), Lyon and Fernandez (2012) suggest these strategies can be thought of as operating along a continuum: the further we move away from traditional organisational growth strategies and towards sharing and disseminating, the greater the potential for social impact to be achieved. However, there is also a corresponding decrease in levels of control along this same continuum: *"with increases in scale, the original innovator wanting to scale up will have less control"* (p. 11).

Although much work on strategies for scaling comes out of case studies, there have been some attempts to develop theoretical models for how successful scaling happens. One example is Bloom and Chatterji's (2009) SCALERS model. This suggests that there are seven 'drivers of entrepreneurial impact': Staffing, Communicating, Alliance building, Lobbying, Earnings-generation, Replicating and Stimulating market forces,

together forming the acronym, SCALERS. Bloom and Smith then tested the hypothesis that high levels of capacity related to each of the SCALERS would be positively related to increased social impact by using a large scale sample of more than 500 social enterprises from the United States (Bloom & Smith, 2010). They found that all the SCALERS are positively related to scaling social impact but 'alliance building' was only marginally significant. And they noted that 'earnings generation' has a relatively stronger effect that the other SCALERS.

4.3.3.1 Scaling beyond organisational growth

An interesting development in scholarship around social entrepreneurship in recent years is the idea that we should move beyond thinking about scaling in terms of growing organisations, and instead focus on the idea of scaling social impact. For example, Lyon and Fernandez (2012) argue that *"there is a need to go beyond a preoccupation with growth within specific organisations"* (p. 14). A review of literature on scaling impact from the Growth Philanthropy Network (GPN), the Center for the Advancement of Social Entrepreneurship (CASE) and the Center for Strategic Philanthropy and Civil Society (CSPCS) notes that there has been a shift *"away from the concept of scaling as organisational growth and towards the concept of scaling impact, or the outcomes the organisation has generated beyond just the organisation itself"* (Clarke et al., 2012, p. 5). This has resulted in a new focus on 'non-replication' strategies, which could include *"affiliating with new partners, disseminating ideas about change models directly or indirectly, working to change policy environments and other strategies to create change or promote a social movement"* (p. 5).[24]

Westley et al. (2011) suggest that we should be most interested in scaling understood as attempts to bring about whole system change, not just organisational growth. They make a distinction between the concepts of 'scaling up' and 'scaling out'. 'Scaling out' they argue is the term that should be used when we are talking about *"the efforts of organisations to replicate and disseminate their programs, products, ideas and innovative approaches"* (Westley et al., 2011, p. 3). It is essentially about attempts by an organisation to impact more people or over a larger geographical area. 'Scaling up' on the other hand, is about wider system change: *"when the organisation aims to affect everybody who is in need…or to address the larger institutional roots of a problem, we refer to their attempt as 'scaling up'" (*p. 3f.). Westley and Antadze (2013) point out that the transition from 'scaling out' to 'scaling up' can cause difficulties because the former requires very different skills to the latter. If the social entrepreneur is the critical figure in 'scaling out', then in contrast, scaling up requires 'system entrepreneurs' – *"individuals committed to and skilled in changing broader systems"* (p, 7). In particular, they argue that system entrepreneurs are able to *"recognise and seize an opportunity without the ability to control it directly"* (ibid.).

Similarly, McPhedran Waitzer and Paul (2011) suggest that we should move from a focus on growing organisations to what they call 'mission-networking'. Like Westley and Antadze, they also acknowledge that this requires a very different approach to that of the traditional social entrepreneur. There will need to be a *"letting go of personal ego, brand, intellectual property or other elements of organisational conditions in order to maximise the number of change-makers across the system"* (McPhedran Waitzer & Paul, 2011, p. 154). However, we can detect something of the classical 'hero entrepreneur' discourse in their confidence that social entrepreneurs will be able to make this shift to a new role, since they are individuals who, have in their view *"seen beyond the horizon and are quietly shaping new pathways to scale their vision"* (ibid.).

Other work on 'non-replication' scaling strategies has looked at the idea of open sourcing as an approach for spreading an innovation. Clay and Paul (2012) for example describe how in contrast to organisational growth, an alternative strategy is *to "take something that is proprietary to your enterprise and turn into an open source tool for the whole field in which you work"* (p. 18). McLeod Grant and Fulton (2010) describe one example where this principle was followed – the non-profit Kaboom! which was able to dramatically increase its reach and impact by making its model freely available online for others to take up. However, in general, content which goes beyond just recommending that we need more focus on non-replication scaling strategies is rather lacking. As Clarke et al. (2012) point out, work on these non-replication strategies *is "newer, less formalised and less complete…there are few case studies, almost no empirical studies and very few tested or generalizable theories"* (p. 6). These different scaling strategies are summarised in table 7 at the end of this chapter.

However, some have also questioned whether the framing of 'scaling' itself is helpful when thinking about trying to maximise the social value produced by social entrepreneurship. Mueller, Nazarkina, Volkmann and Blank (2011) note *that "terms such as 'scaling', 'replicating', or 'maximising' - in this case in the format of scaling, replicating or maximising social value as opposed to economic value – have been transferred from commercial to social entrepreneurship"* (p. 117). They caution that *"adopting these terms without questioning whether or not their*

[24] See chapter 6 for more of these strategies.

application is beneficial to the subject matter is wasting the opportunity to consciously shape the field" (ibid.). Davies and Simon (2013) argue that the concept of 'scaling' with its strong associations of standardisation and central control does not necessarily sit well with the social field where outcomes are not products that can be easily made to formula and packaged. They also argue that the terminology of 'scaling' may be particularly ill suited to social entrepreneurs who are concerned with delivering services of various kinds: *"while scaling might be appropriate terminology for a mid-twentieth century model of public service based around the idea of delivering standardised packages of care, it does not sit well with more recent discourses on public sector innovation"* (p. 26).

Approach	Strategy	Overview
Replication	'Scaling out'	Organisations attempt to replicate their innovation in other geographical areas
	'Scaling up'	Organisations attempt to effect wider system change by tackling the institutional causes of a problem
	Mission networks	The social entrepreneur lets go of traditional aspects of organisational control (brand, IP, etc.) to influence and create other 'change makers' within the system
Non-replication	Open Source	The core IP of the innovation or organisation is turned into an open source tool for others to take up
	Other (less explored potential strategies)	Including: Affiliation with new partners Direct/indirect dissemination of ideas Working to change policy environments Social movement building

Table 7: Summary of main scaling strategies discussed in this chapter

4.3.4 Social entrepreneurship and the relationship to transformative social change

By examining the accounts of scaling innovation within social entrepreneurship, we have begun to explore its connection to theories of social change. But what has been stated more explicitly about this relationship? In other words, how clear an account does social entrepreneurship discourse present of its relationship to broader social change?

Consistent with the argument above about the different schools of thought that exist, the answer to this depends very much on what variety of social entrepreneurship we are looking at. Nicholls (2012) argues that the social innovation school *"conceptualizes social entrepreneurship as being a process of systemic change rather than a marketization of social goods"* (p. 241). Perrini (2006) distinguishes between a 'limited' and an 'extended' view of social entrepreneurship concerning how it understands its scope. The limited view considers social entrepreneurship as belonging to theories of non-profits (equivalent to the 'commercial activity of non-profits' strand of the 'earned-income' school). On this view, social entrepreneurship is principally about a shift to managerial competency and market based attitudes to non-profit actors in order to improve their operational efficiency and effectiveness. In contrast, according to the extended view, social entrepreneurship is not limited to the study of non-profits but is an entirely new field of study primarily concerned with the activities of people *"who are able to contribute to social change with creativity and innovation, typical of the classical entrepreneurial process"* (Perrini, 2006, p. 7).

Mair (2010) similarly outlines a broader view of social entrepreneurship which explicitly connects it to social change. In her view, *"the defining purpose of social entrepreneurship, regardless of the financial model, is to effect social change by altering the social economic and political day-to-day realities at the local level"* (p. 20). In particular, she understands the ultimate purpose of social entrepreneurship with reference to Sen's idea of

instrumental freedoms that enable development by fostering individual capabilities. Social entrepreneurship is an attempt to address the opportunity spaces created by failures to realise Sen's instrumental freedoms. As such, *"the main objective is to change or modify the social and/or economic arrangements that create the situation of failure to satisfy basic needs"* (p. 19)

On this 'wider' conception of social entrepreneurship, there is acknowledgment that market activities are not on their own sufficient to bring about transformative social change. Nicholls and Huybrechts (2012) argue that *"enduring social change cannot be the result of social entrepreneurship alone; it necessarily involves political action at various levels from the formal to the informal, as well as partnerships with broader social movements"* (p. 10). In a similar way, Mair highlights that microfinance, for example, will not in itself change the social structure that makes economic development difficult in the first place. It can only do this by acting in concert with non-market, non-banking activities such as training and education.

This position, which strongly connects social entrepreneurship to wider social change, is not unusual. Alvord, Brown and Letts (2004) also conceive of social entrepreneurship *"as a catalyst for social transformation"* (p. 262). In their paper which hones in on cases of social entrepreneurship that have been widely recognised as successful, they argue that they are concerned with social entrepreneurship which *"creates innovative solutions to immediate social problems and mobilizes the ideas, capacities, resources, and social arrangements required for sustainable social transformations"* (p. 262). As such, they argue that the fields of development studies, organisational theory, and social movement research are all highly relevant to the study of social entrepreneurship.

Clearly then, there is an important strand of thinking within social entrepreneurship that sees it as intimately connected to processes of social change. But what is the theory of change inherent in social entrepreneurship? This is often somewhat unclear. Mair (2010) asserts that *"the key to social entrepreneurship" is "an explicit or implicit theory of change"* (p. 20). And she implies one potential theory of change in her comment that the role of social entrepreneurs may be to 'provide proof of concept'*: "in an ideal world, after they had developed the proof of concept, social entrepreneurs would be replaced by governments and businesses"* (p. 24). This suggests perhaps that social entrepreneurship plays a key role in the early stages of the social innovation life cycle, but that for scaling and diffusion of an innovation, we will require different actors, namely governments and the private sector. However, this is only hinted at in Mair's work and is not set out as an explicit theory of change for social entrepreneurship.

4.3.5 Critical turn in social entrepreneurship scholarship

The brief overview above suggests that though many scholars understand social entrepreneurship to be intimately connected to processes of social change, the theory of change underlying this view is often not well explained or developed. However, there is an increasing acknowledgement of this gap and of questions around the ultimate purpose of social entrepreneurship in the literature.

First, there has been an important recognition that there is no single 'true' account of the field of social entrepreneurship and how it connects to social change. Rather, what we currently see reflects the logics of actors with particular resources who are shaping the field in particular ways. Nicholls (2012) argues that *"the current status of social entrepreneurship can be conceptualized as a field that has yet to achieve a paradigmatic consensus and that lacks a 'normal science' or clear epistemology"* (p. 222). On the contrary, *"social entrepreneurship currently represents a fluid institutional space for dominant actors to shape and exploit"* (p. 223). Nicholls also argues that the two narratives that are most dominant within social entrepreneurship are:

- Narratives based on 'hero entrepreneur' success stories. Here there is often a focus on systemic change although this is *"never very clearly defined"* (p. 236). This narrative supports internal logics that legitimate new philanthropic practices that we see in the field of venture philanthropy, with the emphasis on getting maximum social return on investment.

- Narratives based on organisational models reflecting ideal types from commercial business. This supports internal logics that legitimate ideas of efficiency and the marketisation of the state.

Nicholls argues that these two narratives dominate such that alternative conceptions of social entrepreneurship based around discourse of social justice and communitarianism tend to be marginalised.

Second, we have seen an interesting critique around the substance of some of these social entrepreneurship discourses and their accounts of how they relate to social change. Dey and Steyaert (2010) argue that social entrepreneurship is currently dominated by a 'grand narrative' *"which imparts an optimistic script of social change"* (p. 86) characterised by certain values of rationalism, utility, progress and individualism. This is problematic, they argue, because it is a narrative that ends up over-simplifying inherently complex issues in relation to social change. Social entrepreneurship discourse in this grand narrative contributes to *"the impression that social change can be achieved without causing debate, tensions or social disharmony"* (p. 88). And this impression is achieved because the grand narrative around social entrepreneurship *"introduces a de-politicised image of social change"* (p. 92). Indeed, there is a denial of the political – Dey and Steyaert describe this as a 'neutralisation' of social entrepreneurship which suggests it is ideology free (or post-ideology) and is best understood as a purely pragmatic means of addressing social problems. This tendency within dominant narratives of social entrepreneurship to *"de-politicize, trivialize and individualize" complex social processes "culminates in a depoliticized story of harmonious social change"* (p. 99f).

The concern that the dominant narrative of social entrepreneurship tends to give an apolitical account of social change is shared by Cho (2006). As highlighted previously, Cho points out that the very act of defining something as 'social' and therefore within the domain of social entrepreneurship is inherently political because there is no broad agreement about what concerns are in a society's 'true' interest. Determining collective social interest is something that we typically have to do by a process of deliberation. But *"when social entrepreneurs organise their actions around values they have identified as social, they have already made demanding epistemological and political claims around their ability to articulate what lies in the public interest"* (p. 42). Cho's argument is that social entrepreneurship as a field is therefore guilty of *"bypassing political processes in favour of a subject-centred, market-oriented approach to the definition and achievement of 'social' objectives"* (p. 49). The implication of his argument is that social entrepreneurship cannot itself constitute a normative account of social change. Rather, *"social entrepreneurship is a means to an end; it is not itself capable of defining social needs or assessing whether the burdens of meeting these needs are being shared equitably. These are fundamentally political questions"* (ibid.).

These arguments from Dey & Steyaert(2010) and Cho (2006) make clear that we need to challenge and better interrogate the underlying assumptions about the concept of social entrepreneurship and its connections to social change. Arguably, the same process needs to be undertaken for the concept of social innovation.

4.4 CONCLUSION

Social entrepreneurship in relation to social innovation

As outlined in the introduction to this chapter, we are concerned with theories of social entrepreneurship to the extent that these can elucidate our understanding of social innovation and the relationship between social innovation and social change. But how should we understand the relationship between social entrepreneurship and social innovation?

When social entrepreneurship is identified as going beyond market activity to encompass innovation in the public sector and civil society, it may seem that there is little to separate it from social innovation. However, one common way of thinking about these two concepts is that we should understand social entrepreneurship as a subset of the wider field of social innovation.

There is often an implicit or explicit argument that social innovation is distinct because it aims at change at a broader, system level. For example, Westley and Antadze (2010) argue that while *"social entrepreneurship is a human-centred concept that highlights the personal qualities of a person who starts a new organisation", "social innovation is oriented towards making a change at the systemic level"* (p. 3). Similarly, Phills et al. (2008) suggest that social innovation is distinctive in terms of the depth at which it operates*: "unlike the terms social entrepreneurship and social enterprise, social innovation transcends sectors, level of analysis and methods to discover the processes – the strategies, tactics and theories of change – that produce lasting impact"* (p. 37). Nicholls and Huybrechts (2012) also argue that, while social entrepreneurship and social innovation clearly overlap, *"a difference lies in the fact that social innovation is not necessarily market oriented, while social entrepreneurship clearly is. Hence some authors view social innovation as the broader umbrella term under which social entrepreneurship, as well as other novel public and third sector initiatives located outside the market, can be*

affiliated" (p. 39). Indeed, Nicholls has previously represented the relationship between these concepts visually to demonstrate that social innovation should be understood as the broad, overarching concept: (see figure 8)

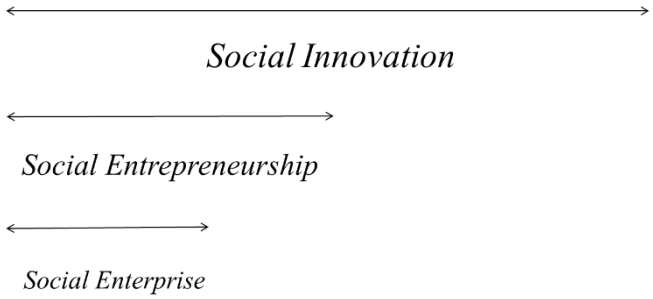

Figure 8: Nicholls 2012, Presentation to 4th International Social Innovation Research Conference

The recent TEPSIE project shares this understanding, stating that *"social innovation is much broader than either social enterprise or social entrepreneurship – but may overlap with one or the other or both. For example, a social entrepreneur may set up a social enterprise which delivers a socially innovative programme"* (Young Foundation, 2012). However, the representation of Nicholls (2012) suggests that all social entrepreneurship and social enterprise are socially innovative. We suggest that this is evidently not the case, and that the relationships could be more accurately represented as in Figure 9:

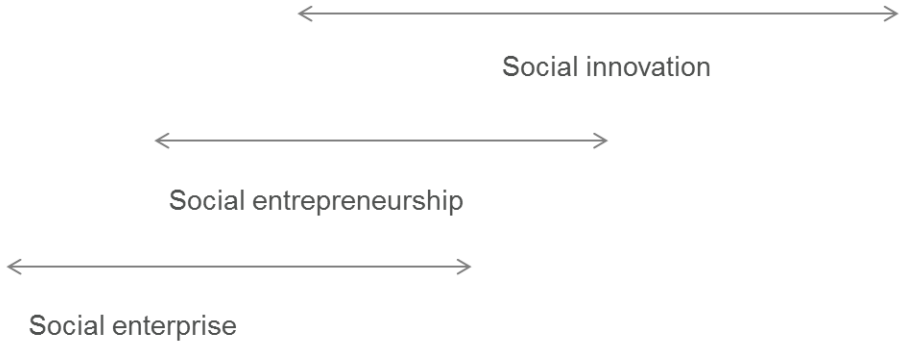

Figure 9: Relationship between social innovation, social entrepreneurship and social enterprise

What implications does this have for how we understand the role of social entrepreneurship within a theory of social innovation? It strongly suggests that we should view social entrepreneurship discourse as a key component of current thinking within social innovation, but that we should understand social innovation as a field that is much wider than this. While social innovation is clearly concerned with new combinations of activities and resources to develop new social practices, these need not be generated by entrepreneurs, and they need not take the form of market based activity. And while social entrepreneurs may be important actors for social innovation to understand, and social enterprises important organisational forms for us to study, they do not tell the whole story. In particular, it is important we do not become too fixated on social enterprises as an organisational form, not least because these may not necessarily involve innovation. Addressing social goals through the operation of independent organisations in the marketplace may involve significant innovation, but not necessarily. Indeed as Barraket and Furneaux (2012) note, *"to date, the social innovation produced by social enterprise has largely been presumed rather than empirically demonstrated"* (p. 218).

In addition, as we have seen, although some discourses on social entrepreneurship view the concept very broadly, and understand it as operating within a much wider political and social context, there is generally a poor account of how social entrepreneurship relates to politics, social movements and collective action. We will need to look at the specific existing discourses around these individual fields to better develop an understanding of how they relate to social innovation.

With these points in mind, we argue that the theory of social innovation developed over the course of the SI-DRIVE project should recognise the important strand of social entrepreneurship within it, but be very clear

where it parts company with this. This is particularly important given the point highlighted by Dey & Steyaert and Nicholls that fields and discourses tend to be shaped by actors with certain resources in order to legitimise certain courses of action. The narratives that dominate social entrepreneurship around hero entrepreneurs and reflecting ideal types from commercial business arguably also dominate much discussion around social innovation at present. We need to be aware of these dynamics and consciously carve out a different emphasis and narrative for social innovation discourse where we think this is important. The SI-DRIVE project provides an excellent platform from which to do this.

Finally, although we have argued here that we should think of social entrepreneurship as having a carefully limited role in our understanding of social innovation, this is not to say there is nothing we can learn from how this overlapping field of study has developed. In particular, some of the more critical work we have noted which questions whether social entrepreneurship sets itself up as an apolitical discourse, is readily applicable to social innovation as well. As we investigate the relationship of social innovation to social change, are we equally likely to fall into making the 'social change' we seek seem depoliticised and neutralised of any normative content? This is an important facet of social entrepreneurship critique that it is essential for us to acknowledge and address.

Next steps: key lessons learned and key questions

On the basis of this review and critique, what are some of the key lessons learned and emerging questions for further research? We summarise these below:

- The life cycle of social innovation requires more systematic study. In particular, we need to distinguish between attempts to map out the stages that will characterise the development of individual social innovations and attempts to understand how multiple social innovations can together contribute to wider social change. In thinking about stages of social innovation, can we find ways to represent this process that make clear that (like all forms of innovation) social innovation processes are rarely linear, planned or easy to direct and control, and that the life-span of many social innovations will be limited?

- Social enterprises and social entrepreneurs may often act as vehicles for social innovation but do not necessarily do so. This is why the field of social innovation goes beyond the field of social entrepreneurship.

- Social entrepreneurship is currently quite dominant within discussions of social innovation and indeed the two are often discussed synonymously. How can we ensure that we put a clear framing around the aspects of social innovation that are not encapsulated by social entrepreneurship? Could we, for example, make a clearer case for forms of social innovation where the tools and mechanisms of social entrepreneurship are less appropriate, or even counter-productive?

- The frame of 'scaling' for discussing mechanisms for spreading innovation may be useful for thinking about social innovation which takes place through particular organisations. However, it has limited utility as a framing for our thinking about the spread of social innovation overall, since not all social innovation takes place in social ventures or will grow like social ventures.

- There are multiple discourses within social entrepreneurship but within these there is no clear account of the relationship between social entrepreneurship and social change. There are some early suggestions of how the two might relate – for example, the idea that the activity of social entrepreneurs provides proof of concept for practices that should then be taken up by the private or public sectors. How could we test this out as a model for how social innovation connects to social change?

- An important critique has developed within social entrepreneurship which acknowledges the tendency for this field to bypass political questions and to present the pursuit of social change as an individualised, ideology-free and non-conflictual process. This is a tendency we may equally recognise within discussions of social innovation. How can we ensure that we present a more nuanced account of social change processes in the course of this project?

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5 SOCIAL INNOVATION IN THE SOCIAL ECONOMY AND CIVIL SOCIETY

Anette Scoppetta (ZSI), Anna Butzin (IAT), Dieter Rehfeld (IAT)

5.1 INTRODUCTION

The focus of this chapter is on 'Social Innovation in the Social Economy and Civil Society' as part of the project SI-DRIVE. The findings are drawn based on literature review of recent articles published by European and international scholars.

Social innovation has various meanings and specifications in a variety of areas such as innovation within management and organisational research, employment and quality of working life, the social economy, sustainable development, or as an aspect of territorial development. Due to the recognised potential for social innovations in the social economy and the civil society (Moulaert, Martinelli, Swyngedouw, & González, 2005; Neamtan, 2002; Moulaert & Nussbaumer, 2005; Murray, Caulier-Grice, & Mulgan 2010; MacCallum, Moulaert, Hiller, & Vicari Haddock, 2009; Gerometta, Häussermann, & Longo 2005) and because of the strong linkages between the two strands this section provides insights into social innovation in the social economy and the civil society. Please note that the concepts are reviewed in connection to social innovation only and that the themes 'social entrepreneurship' and 'social enterprise' are not part of this section.[25]

The section is structured as follows: chapter 5.2 give a historical perspective on the growth of social innovations in the social economy and the civil society. Chapter 5.3 is dedicated to social innovation in the social economy whereas chapter 5.4 focusses on important dimensions of social innovation in civil society such as empowerment, social movements and the territorial dimension. Chapter 5.5 provides insights into the two strands of social innovation and their relationship to social change. Based on the theoretical framework for further empirical work of the SI-DRIVE project, general findings, key lessons learned and resulting research questions are presented in the conclusion (chapter 5.6).

5.2 HISTORICAL PERSPECTIVE

In taking a historic view, the two strands of social innovation under scrutiny, social innovation in the social economy and the civil society, have common roots in more recent history: the collapse of Fordism, the crisis of the welfare state and the demise of full employment have been identified as crucial factors for the growth of the social economy (Amin et al., 2002). Many other scholars point in the same direction. Also Moulaert & Ailenei (2005) regard Fordism as important for the development of the social economy: "*This 'up-scaling' of the social economy received a major new impetus under Fordism, when the national social security and welfare systems integrated part of, or worked out, a division of labour with social economy institutions (especially mutual support organisations)"* (p. 2048). Also for Gerometta, Häussermann and Longo (2005), the starting-point for social innovations in the civil society is social exclusion processes and social fragmentation in European cities in the context of changing welfare state arrangements in the transition to post-Fordism. These processes lead to a spatial pattern of social segregation and culminate in distressed neighbourhoods where social problems were concentrated and which then affect the city as a whole (Moulaert et al., 2005, p. 1983). Though the European welfare states are characterised by plurality (Schubert et al., 2008; see also Esping-Andersen's welfare regimes), all of them faced fragmentations and divisions imposed by the global post-Fordist economy. Thus, social innovations in both, the social economy and the civil society, result from alterations in social, economic and political contexts.

According to Moulaert et al. (2005), a conflict of temporalities between agencies exists: the different temporality of the political world, the social economy and the civil society movements have led to arising social economy initiatives. This conflict may seriously disturb the reproduction of socially innovative initiatives. It is therefore relevant to analyse the factors of these differences and how they can be oriented towards a better time-convergence. Many scholars such as Moulaert thus try to understand how initiatives were launched, agendas set, and institutional dynamics promoted or hampered. Within the FP5 project SINGOCOM[26], a

[25] See chapter 4.
[26] http://users.skynet.be/bk368453/singocom/index2.html

transverse survey of the multitude of ideologies and social movements in the various national and local contexts has been undertaken, starting in the 19th century and ending with the contemporary society. The study looked at which visions, philosophies and movements have inspired or founded social change both at the local and broader scales in Europe. One result of the survey is that with the faltering of the 'safety-net' of the welfare state, which had somewhat compensated for social disintegration, especially in large metropolitan areas, the philosophical tradition of the social economy, i.e. self-help, mutual aid, civic or religious associationism, makes its appearance, even in public discourses (Moulaert et al., 2005, p. 1971). Sometimes the welfare state even became a catalyst through which social innovation became acceptable to 'the larger society' (Moulaert et al., 2005). WILCO[27], another FP7 project, examined, through cross-national comparative research, how local welfare systems favour cohesion through social innovation. Further insights will still also follow from results of FP7 projects[28] that are still in place such as TRANSIT[29]: the starting point for TRANSIT is the need to understand transformative social innovations: social innovations that contribute to systemic changes that address urgent societal challenges. TRANSIT unpacks the relation between social innovation and systemic change in the context of a rapidly changing world that faces 'game changing' developments (e.g. financial crisis, climate change or the ICT-revolution). TRANSIT will explore constituent links in the causal chain between social innovation and systemic change. The main research question is: how and under what conditions do social innovations lead to systemic change, and how are actors (dis)empowered in transformative social innovation processes (European Commission, 2014)?

The existing literature surveys thus deal with a variety of features of social initiatives such as redistribution of income and wealth within the market economy, various allocation systems and their political governance, solidarity and reciprocity relations, satisfaction of alienated individual and collective needs, the role of the public, private and third sector in operating and governing the social economy, and global governance as an alternative for Keynesianism (Moulaert & Ailenei, 2005, p. 2037). The two strands, the social economy and the civil society, thus have much in common. *"Instead of encouraging an economic approach where all must either be private or public, we must value and acknowledge the importance of a social economy, run by civil society, that defends the collective interest",* states also Neamtan (2002, p. 6). The following chapters, nevertheless, provide insights into the findings that are drawn based upon literature review with regard to social innovation in the social economy and the civil society.

5.3 SOCIAL INNOVATION IN THE SOCIAL ECONOMY

Whilst the first, second and third sector have in common that they provide goods and services, they may differ with respect to structural elements like ownership and ways of distribution (Anheier & Seibel, 1990). Next to the regular economy, the social economy thus is the important 'third dimension' when reviewing the contributions of social innovations to social change. Some scholars even think that the social economy is *the* source of social innovation (Murray et al., 2010; MacCallum et al., 2009). Social economy entities are also considered by many as important agents in the battles against social exclusion, poverty and environmental degradation, and key actors in the creation of social capital and the delivery of public services. The European Commission estimates that 11 million jobs are provided in the social economy across Europe.[30]

In the first sections of this chapter the term social economy is defined and the relation of the sector with social innovations clarified. Finally, the contribution of social innovations in the social economy is scrutinised and potentials for social innovations in the social economy summarised.

5.3.1 Understanding the social economy concept

Frequently, the social economy is presented as a family of hybrids between market, state and civil society. As the social economy is a hybrid, so are the firms, states, charities and households that operate within it. They have a base in one of the four sub economies, but also operate across its boundaries (Murray et al., 2010). As a consequence, many synonyms are apparent when speaking about the social economy. These range from the third sector to the solidarity economy or alternative economy, the non-profit sector and not-for-profit sector, to, finally, the voluntary sector. Key features that combine the various forms, nevertheless, include

[27] http://www.wilcoproject.eu/
[28] SSH-research http://ec.europa.eu/research/social-sciences/index.cfm?pg=about
[29] http://www.transitsocialinnovation.eu/
[30] http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/social-economy/

- The intensive use of ***distributed networks*** to sustain and manage relationships, helped by broadband, mobile and other means of communication;

- ***Blurred boundaries*** between production and consumption;

- An emphasis on ***collaboration*** and on repeated interactions, care and maintenance rather than one-off consumption; and

- A strong role for ***values and missions*** (ibid.).

Social economy is embedded in historical, institutional and local contexts. Thus, not one definition captures all features of the social economy. Rifkin, for instance, makes a distinction between the North American and European use of the concept: while the Anglo-American charitable model refers mainly to non-profit organisations (associations and foundations, etc.), the continental European perception of the third sector also includes co-operative and mutual support organisations (Rifkin, 1995 in Moulaert & Ailenei, 2005, p. 2044). Next to geographical differences, scholars like Haugh and Kitson (2007) suggest to clarify the fuzziness of the relationship between the third sector and the social economy by reflecting the distinction between social objectives and social activities. The latter comprise social and environmental activities which may be undertaken by actors in the third sector but may also be undertaken by other organisations in the economy such as those in the private sector.

Many scholars, furthermore, discuss the question of whether entities of the social economy make profits or not. According to Moulaert and Ailenei (2005), we should step beyond this question since the literature on the social economy is characterised by an ambiguity about the orientation of financial benefits. Practice-oriented definitions usually define these agents' activities in the first place with reference to what they produce - usually for the satisfaction of needs neglected by *"either market or state"* (p. 2048). Some scholars even argue that the economy is not limited to the market, but includes principles of redistribution and reciprocity (Godbout, 2000). Social economy yet is understood in the European Commission's policy context (DG Enterprise) as to make profits not only for investors. Social economy entities thus are *enterprises* - in the majority micro, small and medium sized enterprises including cooperatives, mutual societies, non-profit associations, foundations and social enterprises.[31] The EU-level representative institution for the social economy, Social Economy Europe, refers to both, social economy enterprises and organisations. They define social economic entities as *economic and social actors* present in all sectors of society, which are set up in order to meet citizens' needs.[32]

Since the real-life spectrum of initiatives and institutions lying between pure market functioning and state administration is wide, social economy in the context of the paper thus refers to *"practices and forms of mobilising economic resources towards the satisfaction of human needs that belong neither to for-profit enterprises, nor to the institutions of the state in the narrow sense"* (Moulaert & Ailenei, 2005, p. 2042). In presenting the definition provided by Moulaert and Ailenei (2005), we thereby follow a 'European-centred' approach.

5.3.2 Social economy and its relation to social innovation

Now, why is the sector important when reviewing social innovations? Many scholars argue that market failures as well as the dissatisfaction and frustration due to state interventions build the ground for social innovations to grow. And often social innovation is directly linked to the social economic sector: socially responsible business practices and social economy are regarded as main fields of social innovation (Moulaert et al., 2005; Neamtan, 2002). Other scholars consider the social economy as part of social innovation (Moulaert & Nussbaumer, 2005) or refer to the social economy as the source of social innovation (Murray et al., 2010; MacCallum et al., 2009). According to Moulaert et al., the thriving forces of many initiatives for social innovation are the dialectics between the satisfaction of human needs, the mobilisation of resources for the local social economy and the organisational as well as institutional dynamics of civil society, including empowerment. The shortcomings of the private sector and the market *"leave a place for the use of other (often pre-existing) social bonds in meeting natural, psychological and cultural needs. This is where social innovation plays an important role in the social economy: social innovation means innovation in social relations as well as new modes of satisfying needs"* (Moulaert & Ailenei, 2005, p. 2050).

[31] http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/social-economy/

[32] http://www.socialeconomy.eu.org/spip.php?rubrique215

Klein and Harrisson (2006) regard social innovation as an essential element of a form of economic development based on social justice. Also Moulaert and Ailenei (2005) take this line: *"Social innovation in the economy is mainly about the (re)introduction of social justice into production and allocation systems"* (p. 2037). They show the high relevance of connecting socially innovative dynamics in the economy (satisfaction of needs, diversity in economic allocation systems, egalitarian property relations and democratic economic governance) with dynamics of alienation and exclusion. Thus, the social economy serves as basis of action in the fight against poverty and exclusion. Local projects anchored in the social economy contribute to the creation of jobs, the reinsertion of the excluded, and the provision of services to the poorest citizens (see also chapter 3).

5.3.3 Contributions of social innovations in the social economy

According to the European Economic and Social Committee 2007 over 240,000 co-operatives were economically active in 2005 in the EU-25. There are more than 11 million jobs in the social economy across Europe, but membership of social economy enterprises is much wider, with estimates ranging as high as 160 million. Turning to another example, in Quebec, even without considering its institutionalised components (the Desjardins movement and the two largest agricultural co-operatives), the social economy accounts for over 10,000 collective enterprises and community organisations that employ over 100,000 workers (Neamtan, 2005, p. 72). Millions of people therefore depend on such enterprises in areas such as healthcare. The progress achieved by the social economy, however, differs within the European Union from one member state to another. This is due to the fact that the critical situations, the actions, the institutional and legal framework and the overall context of the social economy are different in the European countries (Cace & Stanescu, 2013).

Organisations in the social economy are considered by many as important agents in the battles against social exclusion, poverty and environmental degradation, and key actors in the creation of social capital and the delivery of public services. The sector has significant economic impact: increasing output and reducing official, and more importantly, hidden unemployment by helping those marginalised by the orthodox labour market to re-enter employment (Haugh & Kitson, 2007). Third sector organisations, and particularly social enterprises, which target marginalised labour, help to increase the demand for such labour, provide employment opportunities, offer training and mentoring, and help such labour to move up the labour market queue. Furthermore, the social economy can create new possibilities and provide new forms of fulfilling work (Hudson, 2005). These processes have social effects, such as reducing social exclusion, and also generate tangible economic outcomes (Haugh & Kitson, 2007). Other scholars take the same line: social economy plays a role in promoting social inclusion of people, especially vulnerable ones by assuring sustainable access channels to labour market. Alongside exclusion from education, health, and housing, exclusion from labour market exposes people to absolute poverty and low level of quality of life, self-esteem and loss of human dignity (Cace & Stanescu, 2013). According to the European Economic and Social Committee (2007), the spheres with the highest scientific, social and political consensus concerning recognition of the social value added contributions of the social economy are social cohesion, employment, generating and maintaining the social and economic fabric, the development of democracy, social innovation and local development (p. 29). Against the logic of a globalising capitalism, the social economy prioritises social use-value. It aims to redress the imbalance between private affluence and public poverty, to create local demand, to re-skill the long-term unemployed and reintegrate them into an expanded labour market, to address some of the problems of urban regeneration (e.g. in social housing, insulation, and energy-saving), to provide a different kind of spatiotemporal fix for small and medium-sized enterprises, to regenerate trust within the community, and to promote empowerment (Jessop, 2002).

The social economy has also furthered the modernisation of collective services, serving as a laboratory of research and development. In the social sphere, the social economy serves at least two purposes. First, to find solutions to urgent problems linked to poverty, be it hunger (food banks, soup kitchens, collective kitchens), social or community housing, violence (shelters, support groups, etc.), or social exclusion (reintegration enterprises, employment-related training, literacy groups, etc.). Secondly, to find solutions to new social demands, as has been the case with many local initiatives that served as models for the establishment of institutional, parapublic or community-based networks (Neamtan, 2002). *"The most strategic element of the social economy is perhaps its response to a fundamental need: the ability to respond to collective need by securing collective ownership of our resources, in a context of market globalisation"* states Neamtan (2002, p. 7). Social innovation in the sense of the social economy thus can be understood as serving the satisfaction of various needs in local communities (Moulaert & Nussbaumer, 2005). *"The 'solidarity economy' thus creates synergies*

between actors (local authorities, private enterprises, state, citizens) and generates workplaces by offering new services" (Moulaert & Ailenei, 2005, p. 2042).

5.3.4 Potentials for social innovations in the social economy

According to Haugh and Kitson (2007), several challenges remain in order to further exploit the potential of the third sector. These range from providing a constructive partnership with the sector by the government and resist the temptation to treat it as one of the instruments for the marketisation of the welfare state to constrains in their growth aspirations by limited access to capital due to the fact that the majority of third sector organisations are small and under-capitalised. Additionally, a challenge for economically successful third sector organisations is to continue to grow whilst simultaneously maintaining their social and environmental goals. Finally, it is important to be aware of the geographical imbalances that may arise from over-dependence on the sector in delivering public policy objectives (ibid.).

Other scholars point towards even huger obstacles: "*Socially innovative arrangements of governance-beyond-the-state are fundamentally Janus-faced, particularly under conditions in which the democratic character of the political sphere is increasingly eroded by the encroaching imposition of market forces that set the 'rules of the game'*", informs, for instance, Swyngedouw (2005). Neamtan (2002) also refers to the rise of initiatives as *"proof of the importance of the social and solidarity economy, in the search for new models of development"* (p. 5). It has been argued elsewhere that the social economy, as a source of innovation and production, could stand on an equal footing with the private market economy. This would require significant transformations: new tax and pension rights and other rights for different types of paid and voluntary work; new types of property; and new kinds of institutions, especially in the fields of finance and formation (Murray et al., 2010).

For Gerometta et al. (2005) the reconstruction of social relations at a local level is crucial. Issues such as the distribution of working time, the valorisation of voluntary labour, the content and channels of life skills learning, the role of many of the social and educational services, the arrangements for retirement and unemployment, the size and location of public service centres such as schools and hospitals, and the organisation of public safety – all these will need radical changes (Murray et al., 2010). Thus, by reconstructing these social relations – as suggested by Gerometta et al. (2005)– the basis could be built for new forms of a social economy, which could overcome the fragmentations and divisions imposed by the global, post-Fordist economy.

5.4 SOCIAL INNOVATION IN THE CIVIL SOCIETY

As stated, social innovations in the social economy aim at the satisfaction of human needs. Moulaert et al. (2005) even regard the dialectics between the satisfaction of human needs, the mobilisation of resources for the local social economy and the organisational as well as institutional dynamics of civil society, including empowerment as the thriving forces of many initiatives for social innovation. Thus, social innovations are often rooted in both the social economy and/or in civil society. Having considered social innovation in the social economy, we, now turn to social innovation in civil society.

The issues highlighted in the second chapter comprise at general introduction to civil society, empowerment, social movements and territorial development, all of which are linked to each other:

- Civil society refers to the social field, the actors and institutions that provide a seedbed for social innovation (chapter 5.4.1).
- Empowerment aims at strengthening the capability of people and groups to engage in civil society in an active way (chapter 5.4.2).
- Social movements come on the agenda when the heterogeneous actors of civil society act in a directed, often informal way (chapter 5.4.3.).
- The territorial aspect focuses on the local level, the place where grassroots activities from the civil society come to life (chapter 5.4.4).

Although the issues are very broad and dispersed, we focus on the actors, preconditions, institutional frame and societal embeddedness of social change as a potential consequence of social innovation. By presenting these

issues we do not theorise social change in a direct way and in most cases do not refer to the debate about social innovation, but raise important questions concerning the understanding of the roots and processes related to social innovation.

5.4.1 Civil society

Civil society is a very heterogeneous concept. In one of the most prominent definitions, civil society refers to social organisation in the field between the state and households. That field enables people to manage their resources and activities (Layton, 2006). Therefore, civil society is of high interest when studying social innovation: this is the field where social innovations have their roots, where social innovations develop and, finally, where social innovation can result in social change.

In political philosophy the idea of civil society goes back to the concept of the 'good life' that means an active life as a political human being in the polis by Aristotle (Kocka, 2004), the civil society as a counterpart of the all dominating Leviathan of Hobbes (Boltanski, 2013, p. 216), or the civil society as the social and cultural base of democracy in the work of Tocqueville (Woldring, 1998). All these ideas came back on the agenda of political thinking in the 20th century. The key ideas of Aristotle have been revived with the discourse about 'vita activa' by Hannah Arendt (1958). Tocqueville's social and cultural base of democracy was linked to the concept of social capital by Putman (1993), and in certain terms most important considering the background of the social conflicts in the late 1960ies, Etzioni (1968) worked out a new balance between state and individual citizens mediated by institutions for an active society: *"It is the exploration of a society that knows itself, is committed to moving towards a fuller realization of its values that commands the levers such transformation requires, and is able to set the limits on its capacity for self-alteration – lest it become self-mutation. This would be an active society"* (p. 16). Further approaches to be mentioned are Habermas' (1981) concept of a rational discourse to revitalise an active political public space or Gramsci's approach (1971, p. 206ff) to renew Marxism by overcoming economic determinism through studying civil society as the social field which has a certain autonomy where the struggle about societal hegemony takes place (see also the concept of 'third space' by Bhabha, 2000). New impulses in the discussion about civil society came from studies about the new international political order. Whereas Strange (1996, p. 86; p. 108f.) analysed civil society as looser from the retreat of the state by global acting groups like multinational companies, crime, or supra-national institutions, Kaldor (2003) was one of the first to interpret actors and institutions from civil society as a new democratic power in global governance; all with different relations to territory. Accordingly, he identified five versions of civil society (see table 8).

Type of society	Territorial dimensions	Global
Societas civilis	Rule of law/civility	Cosmopolitan order
Bürgerliche Gesellschaft	All organised social life between the state and the family	Economic, social and cultural globalisation
Activist	Social movements, civic activists	A global public Sphere
Neoliberal	Charities, voluntary associations, third sector	Privatisation of democracy building, humanitarianism
Postmodern	Nationalists, fundamentalists as well as above	Plurality of global Networks of contestation

Table 8: The five versions of civil society (Kaldor, 2003, p. 10)

Appadurai (2009) follows Kaldor and puts his hope in international civil society as the utopian side of globalisation (p. 149ff). He focuses on the grassroots aspects of civil society that includes networks of political activists who care about human rights, the powerless, rights of indigenous societies, political and natural upheaval, sustainability, gender and humanitarian affairs. Further on, he points out that nowadays civil society is much more than a protest movement but more and more works together with national and international public and private organisations. Despite often local roots, their strength lies in their cellular organisation that means that they are non-territorial and linked to each other, but not centrally governed or coordinated. Nevertheless, they are able to replicate. Insofar, civil society not only stands for key actors and promoters of social innovation, their mode of organisation can be seen as a social innovation sui generis.

The plurality of approaches goes hand in hand with a ***plurality of actors***. Crouch (2011, p. 215ff.) argues that there are five key groups within civil society:

- Political parties that connect state and society;
- Churches with the potential to bring ethical problems on the public agenda;
- Citizens' initiatives ('Bürgerinitiativen') that campaign against government (groups of clinical patients, human rights associations);
- Volunteers and charitable organisations that intervene in societal processes in a direct way, and
- Professional organisation of workers (in this context he avoids the notion of trade unions).

Crouch furthermore points out, that civil society in our modern understanding flowers in the intermediate space between noble manifestations of political and economic power (materialised for example in small little houses that are built without any order and rule and that give the closed, highly controlled and sky-scraper dominated streets some idea of vital life) (p. 223). Following Crouch, civil society is characterised by heterogeneous and often competing groups with specific and often opposite values and morality.

This notion of heterogeneity is important ***to avoid a euphemistic understanding of the civil society as a collective actor***. Civil society stands for a utopian hope in a global active society (Appadurai, 2009). And this active society includes discussion, controversy and conflict. Because civil society is originally related to political discourse and not ruled by anonymous or invisible hands like the market, social innovations rooted in civil society are controversial. In addition, conflicts are vital and obvious in a direct way. In this context, the notion of Boltanski (2013, p. 125) is important: in the course of the 19th and especially the 20th century, the modification or change of normative frame of Western societies deeply roots in affairs and scandals and the resulting societal discourse.

5.4.2 Empowerment

Empowerment is a comprehensive concept: in its broadest understanding it refers to the goal, means (instrument), process and result of individual and social change. It is deeply rooted in social work and community work, but it can also be found in health management, education, psychotherapy, or human resource management. In addition, it is a key concept of the development activities of the UN, the World Bank and many NGOs. Beyond the different approaches the common assumptions of empowerment are (Bröckling, 2004):

- The unequal distribution of power as a social resource that results in the feeling of powerlessness of the 'have-nots'.
- Interventions that aim at raising the power potential of those who have been identified as powerless.
- These interventions aim overcoming the feeling of powerlessness not by solving a specific problem but by strengthening the individual and social problem solving competence.

Ultimately, the ratio of empowerment is to make latent potentials of power work. This maybe best expressed by Jesse Jackson's phrase that is *"you are not responsible for being down, but you are responsible for getting up"* (cited in Bröckling, 2004, p. 59f.). In consequence, following Rappaport, empowerment aims at ***widening the possibilities for people, individuals as well as communities, to decide themselves how to live*** (Rappaport, 1985). In

this respect, modern understanding of empowerment roots in strategies of social work in oppressed communities in the middle of the 1970ies in the American civil movement (Black Empowerment; Solomon, 1976).

Empowerment is most prominent in development policies and includes all strategies and instruments that enlarge the possibilities of action, self-determination and autonomy. Sen (2010, p. 281ff.) refers to the life that human beings can live when they have the ability to do the things they can and that are important for them. In this context, he highlights that empowerment is not about the resources, the haves and the goods for daily use. It shifts thinking in direction of the real chances and possibilities that human beings have and need to participate in societal life in an active way.

However, the empowerment approach is recently more and more linked to social innovation, not only in developing contexts, but also in European frames. The ratio is that the empowerment of people and societies provide a seedbed for the emergence of social innovation. As Edward-Schachter and Tams (2013) put it: *"Empowerment and community participation have been recognized as central to mobilizing the creativity and synergies of people in their communities and enablers to growing the pace of social innovation"* (p. 1). The characteristic of social innovation as a practice led field becomes much obvious in relation to the empowerment approach. The scarce (scientific) literature discussing social innovation and empowerment is mainly focussing on testing and evaluation of practices or instruments such as *living labs or design strategies* through which empowerment shall be enforced (Edward-Schachter & Tams, 2013; Melles & Howard, 2012).

5.4.3 Social movements

"Social movements are mobilized networks of groups and organizations, which, based on collective identity and with means of protest, initiate or hinder social change. Social movements may include organizations but as a whole they should not be understood as organizations. Social movements do not have formal members but activists and participants, as well as supporters and sympathizers" (Rucht & Neidhardt, 2001, p. 555; translated by the authors). The range of characteristics of social movements is considerably broad, and reaches from small movements taking political influence to mass protests and violent actions (ibid.). Despite its broad range, Tilly and Wood identify three common elements of social movements. These are

> *"(1) campaigns of collective claims on target authorities;*
>
> *(2) an array of claim-making performances including special purpose associations, public meetings, media statements, and demonstrations; and*
>
> *(3) public representations of the cause's worthiness, unity, numbers, and commitment"* (Tilly & Wood, 2013, p. 8)[33].

Social movements can be powerful and influential due to the high visibility of these three elements and are an important vehicle of social innovation as well as social and political change (Staggenborg, 2012, p. 2). With this ability, social movements provide analytical ground for a vast array of research. The key research issues by which social movements are studied address the entire lifecycle from formation to achieving impact including the potential to stimulate social innovation as formulated by the following set of questions: *"Why do movements originate when they do? How do they attract and maintain support? How to they present issues and formulate strategies and tactics? How do they structure organizations? How do they change cultures? Why do they generate opposition and sometimes decline? How and why do they succeed or fail in achieving their objectives?"* (Staggenborg 2012, p. 2). As it is impossible to discuss all questions in this contribution, instead the major theoretical perspectives under which the questions can be subsumed will be introduced. Major theoretical perspectives on social movements are theories of collective behaviour, relative deprivation theory and resource mobilisation theory.

The fundament of collective behaviour of social movements is constituted by shared beliefs of participants, whereby collective behaviour is understood as being outside of institutional structures. It is furthermore a reaction to some kind of shock, be it structural or cultural breakdowns, natural disasters, rapid social change, or

[33] *"Worthiness: sober demeanor; neat clothing; presence of clergy; dignitaries, and mothers with children; unity: matching batches, headbands, banners, or costumes; marching in ranks; singing and chanting; numbers: headcounts, signatures on petitions, messages from constituents, filling streets; commitment: braving bad weather; visible participation by the old and handicapped; resistance to repression; ostentatious sacrifice, subscription, and/or benefaction"* (Tilly & Wood 2013, p. 5).

a dramatic event (p. 14). The momentum of 'shock' is further elaborated in theories of relative deprivation. In this theoretical strand social movements are seen as reactions to deprivations that are considered unjust and correctable. The evaluation of what is considered as deprivation takes place through prevailing programmes and ideologies that guide reasons, objectives, strategies and actions (Rucht & Neidhardt, 2001). The question of how recognition of a deprived situation transforms into a social movement is taken up in resource mobilisation theories (McCarthy & Zald, 1973, 1977) and relational approaches (Diani & McAdam, 2003). An important insight is that social movements are initiated based upon existing social networks that facilitate coordination of participants (Freeman, 1999; Staggenborg, 2012). Furthermore, resource mobilisation theory emphasises the key role of movement organisations and movement entrepreneurs (leaders) that enable planned and coordinated action. Resource mobilisation is an ongoing process in which tangible (funding) and intangible (commitment of participants) resources are considered as drivers of collective actions in social movements. According to McCarthy and Zald (1973, 1977) social movement entrepreneurs and organisations play an important role in the process of defining movement issues and in increasing public awareness. However, these are supported by additional movement structures of formal and informal networks through which new participants are recruited and campaigns are organised (Staggenborg, 2012).

Globalisation seems to impact the characteristics of social movements (Chester & Welsh 2006). Tilly and Wood claim (2013): *"As compared with the twentieth century, internationally organized networks of activists, international nongovernmental organizations, and internationally visible targets such as multinational corporations and international financial institutions all figure more prominently in recent social movements"* (p. 98). However, the authors also issue warnings to avoid the impression of a clear-cut change in social movement characteristics provoked by globalisation and to put opportunities of new technologies in a much too positive light. Accordingly, social movements still result from alterations in social, economic and political *contexts*. New technologies increase communication inequality since they do more efficiently allow communication among those who are connected already, but exclude even more so those who are not connected. Furthermore, social movements still rely on existing local, regional, and national forms of organisation and social movements cannot be reduced to a confrontation of globalisation and antiglobalisation (p. 98f).

Social movements are a form of *"governance beyond the state"* (Swyngedouw, 2009) and, as mentioned above, they are a powerful lever to express specific interests. However, as social movements originate from civil society or from particular actors of civil society (like NGOs), these interests are as diverse as civil society and can never be representative expressions of common thinking. Swyngedouw, therefore, takes a critical stance regarding networked forms of governance among which social movements are part of. Accordingly, "*the power relationships between citizens and governance shift, while, at the same time, the mechanisms of inclusion in and/or exclusion from these new forms of governance alter the choreography of power within civil society. There is a tendency towards loss of democratic control, while there is a corresponding growth in the power and influence of social and political-economic elites*" (Swyngedouw, 2009, p. 73).

5.4.4 Spatial development

Social innovation takes place within a specific spatial context and its development is influenced by the characteristics of the context in terms of local resources, needs, social and human capital, etc. In the literature on social innovation and spatial development, focus is mainly put on the local scale and especially on deprived neighbourhoods. Questions regarding *"(social) innovation diffusion as a spatial process"* (Hägerstrand, 1967), different socio-spatial contexts or the spatial relations of social innovation actors have not yet been discussed. Against this background, however, the relation between territory and social innovation can be distinguished according to two dimensions (van Dyck & van den Broeck, 2013, p. 133). The first relates to territory as a field of action in which strategies and programmes are developed based on local knowledge in order to allow for place specific policy intervention (e.g. in deprived neighbourhoods). The second relates to territory as a field of analysis in which social innovation *"mobilizes the concept of territory to understand and explain the spatial processes that obstruct or enhance the capacity of action of disfavoured social groups"* (ibid., p. 133).

Social innovation is seen as a transformative force that can change the local relations among individuals and social groups (Moulaert, 2009), as illustrated by the Québec-model (Klein et al., 2013): the Québec-model grounds on co-construction and co-production of fields of action related to labour, living conditions and local development with strong involvement of actors of civil society (such as NGOs). These actors of civil society *"equipped themselves with tools to become actors, even stakeholders with private capital and public institutions"* (Klein et al., 2013, p. 379) and were building blocks of a genuine social innovation system. *"The strength of*

these actors resides in partnership action, the ability to rally actors around issues, and the ability to get the government to take vulnerable social sectors into consideration when designing public strategies" (p. 379).

Following this vein, social innovation is mainly approached through its potential to minimise development problems in socially deprived local neighbourhoods (Gerometta et al., 2005), as illustrated for example in the case of informal settlements in Latin America (Abramo, 2009). The mutuality of social innovation and spatial context reveals the ambiguity of deprived neighbourhoods: *"They are both hearts of the doom – they could not avoid or even 'architecture' the decline – and ambits of hope – these arenas of dense human interaction show and often become the loci of new types of social relations and drivers of alternative agendas"* (Moulaert, 2009, p. 16). According to Forrest and Kearns (2001) the reason why local neighbourhoods are of importance is that *"theorisations of social change derived from observed macro processes of disorder, dislocation and social and economic transformation may underestimate the importance of the lived experience of the dull routine of everyday life […]"* (p. 2127). Neighbourhoods are among the most adequate arenas to study these micro-level routines (working places might be another one). They not only are a 'territorially bound entity' but also a 'series of overlapping social networks' (p. 2130). Klein et al. (2009) also show that local initiatives can trigger processes of socio-territorial innovation that allow the trends of impoverishment and exclusion to be countered, i.e. trends that provoke the devitalisation of local collectivities.

The local level is also of interest to Moulaert et al. (2005): they introduce the model ALMOLIN as an alternative model(s) of local innovation. The core of the model is constituted of a concept of social innovation that follows a normative connotation insofar, as social innovation is understood as *"the satisfaction of alienated human needs through the transformation of social relations: transformations which 'improve' the governance systems that guide and regulate the allocation of goods and services meant to satisfy those needs, […]"* (Moulaert, 2009, p. 12; see also Moulaert & Nussbaumer, 2005b). Moulaert and Nussbaumer (2005a), however, argue that multi-scale, extra-territorial co-operation networks and empowerment strategies will be necessary to make social innovation work. Furthermore, they stress the necessity of combining a basic needs strategy with a social innovation strategy in setting up social economy strategies at the local level.

Schneidewind and Scheck (2013) see potentials in considering cities as laboratories for the experimental development of system innovations. System innovations are understood as reaching far beyond purely technological innovations and include massive change in corresponding infrastructures, institutional regimes, and the behaviour of users (p. 229). Cities provide the synergetic background of a 'boundary object' since they are spatially concentrated and include actor structures and social networks that are necessary for the agreement upon common objectives. The authors illustrate their claim with the example of 'Innovation City Bottrop', which aims at reducing 50% of the city's CO^2 Emissions until the year of 2020 by following a holistic approach including actions in different fields reaching from housing through to mobility and work places (Schneidewind & Scheck 2013; see also http://www.icruhr.de/index.php?id=3&L=1).

Moulaert and Nussbaumer (2005a) criticise that human progress is widely reduced to economic and technological achievements. This 'reductionist approach' is also applied to research concerning regional development in which *"concepts and processes such as culture, networks, communication and organization have become increasingly theorized as instruments of economic progress […]. This of course means a hollowing-out of categories which are in essence part of overall social and human dynamics and not of economic life only"* (p. 46). From a conceptually-oriented perspective, Moulaert and Nussbaumer thus plea for moving beyond 'the territorial dynamics of the learning region' by focusing on the 'social region'. Comprehensive and insightful writings about the geopolitics of capitalism have been published by David Harvey (2007, p. 80), who also advocates that space needs to be regarded differently: not as place but as an 'active moment' within social processes. Other academics share this point of view, seeing spaces not just as natural containers but as a condition and result of social processes (Löw, 2008, p. 207). Moulaert and Sekia (2003), in particular, contrast their model of a 'social region' and its community-based ontology with the family of so called 'territorial innovation models'. In 'territorial innovation models' regional economic development is conceptualised based on innovation, learning, and the generation of knowledge, in order to increase efficiency, productivity and technological and organisational innovation. Thereby, 'territorial innovation models' *"exclude economic activities which are not market-efficient; make capital exclusively functional to profitable activities, and in this way provide a biased reading of innovation of capital"* (Moulaert & Nussbaumer, 2005, p. 51). When the market-logic is integrated into the community logic, the authors argue, *"in fact, a wide range of economic activities will become directly linked to the implementation of the broad view of social innovation"* (p. 52). This means that the basic line

of argumentation captured in the model of a 'social region' is that economic action is only a part of human organisation and therefore should be seen in a much more integrated way.

5.5 SOCIAL INNOVATION IN THE SOCIAL ECONOMY AND CIVIL SOCIETY AND ITS RELATIONSHIP TO SOCIAL CHANGE

So far, we have looked at recent research findings within the social economy and civil society, and have learnt that the two concepts are to be regarded as main source of social innovations. But what does literature say about their relationship to social change? We will pay particular attention to this question within this chapter.

Social innovation in the social economy and civil society is linked to crisis, change and transitions as *"way to respond to the alienation and non-satisfaction of needs by the traditional private sector or the public sector"* (Moulaert & Ailenei, 2005, p. 2042). In such situations, initiatives rise *"either within the formal state (social policy) and market system (entrepreneurial initiative, employment), or within 'alternative circuits'"* (p. 2038). Consequently, market and state intervention failures are the main drivers for social change in the social economy and the civil society.

According to Moulaert et al. (2005) many of the analytical lines relevant to the understanding of 'social innovation' have been developed as arguments within the debate on the transformation of society as a whole. This is particularly the case for political science arguments on the role of civil society in social change and the countercyclical role of the social economy in the overall macroeconomic dynamics (p. 1969). Social innovation does not mean that new social bonds emerge ex nihilo, but instead arise in ways more like a reinterpretation or reproduction of already lived social relations but within new contexts (Moulaert & Ailenei, 2005). New paradigms tend to flourish in areas where the institutions are most open to them, and where the forces of the old are weak, informs Murray et al. (2010). Since social economy initiatives live within the life-cycle of civil society, which may become exhausted because of social conflicts, political pressures, undercutting of income situation of leading figures, etc., new contexts arise constantly (Moulaert et al., 2005). These new contexts, however, are embedded in a ***multi-scalar society entangled in webs of power relations*** (Swyngedouw, 2005; Moulaert & Ailenei, 2005, p. 2050). Shifting relations of power (political, economic, gender or cultural) among participating 'holders', between levels of governance/government and between governing institutions, civil society and encroaching market power are a central concern, particularly in light of the link between participation, social innovation and development (Swyngedouw, 2005).

The cases surveyed by Klein et al. (2009) also show that although the social economy contributes to the revitalisation of a community, it cannot guarantee revitalisation. *"Local initiatives anchored in the social economy are significant but that they alone cannot reverse the strong trends toward impoverishment and exclusion"*, states Klein et al. (2009, p. 28). In his view, the challenge lies in the capacity of local actors to mobilise a set of social, public or private, as well as local or exogenous resources, while maintaining local leadership. As informed in previous chapters, the actors involved in the two strands are characterised by plurality: the social economy comprises economic and social actors present in all sectors of society, which are set up in order to meet citizens' needs. They comprise both, social economy enterprises and organisations (Social Economy Europe). According to Moulaert and Ailenei (2005), social economic entities belong neither to for-profit enterprises, nor to the institutions of the state in the narrow sense. Whilst the social economy is presented as a family of hybrids between market, state and civil society, the civil society is build up with actors from heterogeneous and often competing groups with specific and often opposite values and morality comprising political parties, churches, citizens' initiatives and volunteers and charitable organisations as well as professional organisation of workers (Crouch, 2011).

Change, thus, is reinforced by *"mobilizing exogenous resources that these actors insert themselves into networks at the supra-local level, and it is by combining them with local resources that they create or recreate strong social bonds in a community"* (Klein et al., 2009, p. 28). Thus, *the "combined actions of the social economy actors and the public and the private actors create a context where local coalitions of actors can implement development dynamics that favour social cohesion and inclusion and that are essential for a creative economic dynamic"* (p. 37). Theories (especially these covered by Swyngedouw (2005) and Novy and Leubolt (2005)) thus show the impossibility of analysing the role of civil society without defining its relationship to the state, also at the local level (Novy & Leubolt, 2005; Gerometta et al., 2005). Combining this perspective with the analysis of *the role of civil society in the reproduction of the social economy* (Moulaert & Ailenei; Moulaert & Nussbaumer) leads to the definition of several state roles in this: legal regulator, agent in public–private partnerships, protector of the logic of private

capital, provider of resources for the reproduction of a variety groups in civil society (Moulaert et al., 2005). The role of the state in relation to the market and the civil society thus is crucial for social innovations to grow and, as a consequence, essential for social change.

5.6 CONCLUSION

The conclusions are structured alongside the five key dimensions of social innovation (i.e. concepts and understandings, societal needs and challenges, actors, networks and governance, process dynamics and resources, capabilities and constraints) that serve as theoretical framework for further empirical work within the SI-DRIVE project.[34]

General findings related to the five key dimensions

When relating the findings of the literature review to the five key dimensions, it gets obvious that both concepts, the social economy and the civil society, allow studying social innovations in a twofold sense: the concepts are sources or ***laboratories of social innovation*** and they are ***social innovations themselves***. The social economy and the civil society are regarded as the main source of social innovation (see, for instance, chapter 5.3.2) and they are social innovations themselves when reflecting the working definition of social innovation applied in the course of SI-DRIVE[35]. Both concepts, furthermore, share common core ideas. These are:

- the two concepts are in search of answers for problems that derive from market and state intervention failures. Thus, both concepts result from alterations in social, economic and political contexts (due to e.g. crisis, shifting of power, modified governance, etc.).

- both concepts focus on actors, social processes and organisations that rise, develop and exist outside the pure economy and pure state intervention areas and, thus, are to be recognised as operating across boundaries.

- both concepts serve the satisfaction of human needs (they have an implicit or explicit commitment to active human beings and a consequent democratic approach), draw attention to conflicts and tensions, aim at a redistribution/reallocation of resources/services/goods and include self-determination and autonomy.

The main finding from the literature review with regard to the first key dimension of social innovation within our theoretical framework, 'concepts and understandings', comprises the following: social practices rely on their 'local' frame, i.e. the cultural, historical, social and economic environment in which the practices are embedded. This may also be the reason for the different understandings of the two concepts and terms in the varying parts of the world (e.g. social economy in the US and Europe; see chapter 5.3.1). Consequently, social practice in the social economy and the civil society need to be reviewed in context to its 'territorial setting' (Moulaert & Nussbaumer, 2005; Moulaert & Ailenei, 2005; Gerometta et al., 2005; Klein et al., 2009). In addition, social practices operate across boundaries (Murray et al., 2010). Any theory or concept of social innovation, accordingly, needs to pay particular attention to the local environments of social innovations and the cross-relations between the main agents such as the economy, the state and the society.

Since social innovations are ways to respond to the non-satisfaction of needs by the traditional private sector or the public sector (Moulaert & Ailenei, 2005; Moulaert et al., 2005; Neamtan 2002; Moulaert & Nussbaumer, 2005), they address various societal needs and challenges aiming at the redistribution/reallocation of resources/services/goods (e.g. actions to fight against poverty and exclusion from education, health, housing, and from labour market, the reinsertion of the excluded, and the provision of services to the poorest citizens). As initiatives live within the life-cycle of civil society, new contexts arise constantly due to shifting relations of power (political, economic, gender or cultural) among participating 'holders', between levels of governance/government and between governing institutions, civil society and encroaching market power

[34] The five key dimensions in more detail are: 1) Concepts of social innovation including the relationship to technology and business innovation; 2) Objectives and social demands, societal challenges and systemic changes that are addressed; 3) Drivers, barriers and governance (including the role of social entrepreneurship, networks, user involvement) of social change and development; 4) Social innovation cycle (prompts, proposal, prototypes, sustaining, scaling up, systemic change); and 5) Resources, capabilities and constraints including finance and regulations of the finance industries, human resources, empowerment.

[35] Social innovations is a new combination or figuration of practices in areas of social action, prompted by certain actors or constellations of actors with the goal of better coping with needs and problems than is possible by use of existing practices.

(Swyngedouw, 2005). Process dynamics thus are apparent and influence the growth of social innovations (that reflect the needs of the citizens) constantly. The findings concerning the second ('s*ocietal needs and challenges')* and the fourth ('p*rocess dynamics*') dimension, thus, comprise that social innovation concepts should aim at an explanation of the process dynamics of social innovations, in particular concerning the shifting relations of power between agents and levels of governance/government.

With respect to the third (*'actors, networks and governance')* and the fifth (*'resources, capabilities and constraints*') dimension, the findings of the literature review suggest that further research need to be concluded regarding the capacity of local actors to mobilise a set of social, public or private, as well as local or exogenous resources:

- Social innovations of the two strands ground on social relations of actors (Gerometta et al., 2005). The actors involved are characterised by plurality and comprise enterprises, organisations, groups and individuals from the private and the public. Finally, they do not operate in isolation but act as local coalitions of actors. Combined actions of the social economy actors and the public and the private actors create a context where development dynamics are implemented that favour social cohesion and inclusion (Klein et al., 2009).

- Since the local coalitions of actors rely on the resources, the reconstruction of social relations at a local level is a crucial element. In order to exploit the full potential of the two strands many challenges still remain such as the distribution of working time, the valorisation of voluntary labour, arrangements for retirement and unemployment, the size and location of public service centres (Murray et al., 2010).

The radical changes that are required also comprise new pension rights, new types of property and new kinds of institutions (see also Swyngedouw, 2005; Neamtan 2002; Gerometta et al., 2005; Haugh et al., 2007; Moulaert, 2009). Systemic changes, however, need constructive partnerships between the sectors (economy/social economy-state-society). The role of the state in relation to the market and the civil society thus is crucial for social innovations to grow and, as a consequence, essential for social change.

Key lessons learned

Accordingly, the key lessons learned for a theoretically sound and comprehensive concept of social innovation and its relationship to social change comprise:

- The social economy and the civil society are regarded as the ***main context of social innovation.***

- Social practices are embedded in ***'local settings'***, i.e. the cultural, historical, social and economic environment. Accordingly, any theory or concept of social innovation needs to pay particular attention to the local environments of social innovations and the cross-relations between the agents such as the economy, the state and the society.

- Social innovations ground on ***social relations*** of local actors and their capacity to mobilise a set of social, public or private, as well as local or exogenous resources. Process dynamics of social innovations are crucial. Consequently, social innovation concepts should pay attention to the capacity of local actors to mobilise resources and explain the process dynamics of social innovations in relation to the shifting relations of power between agents and levels of governance/government.

- ***Constructive partnerships between the sectors*** (economy/social economy-state-society) are required in order to exploit the potential of social innovations in both strands. The role of the state in relation to the market and the civil society thus is crucial for social innovations to grow and, as a consequence, essential for social change.

Research questions

The research offered insights into different modes of articulation of social innovation and social processes (movement, organisation, representation) bridging the micro-, meso- and macro-level. Promising ideas to cope with the discussion about analytical or normative approach have been identified (focus on problems that root in market and policy failure, the concept of rational discourse, the focus on vita activa, good life, self-

determination and individual autonomy). In addition, an awareness of tensions, conflicts, and upheavals in the process of social innovation revealed. Finally, a lot of hints for typologies of actors, modes of organisation, resources, and process dynamics appeared.

Further research questions for the SI-DRIVE project mainly comprise two sets of questions. These refer to the *social relations & process dynamics* (e.g. capacities of local actors and shifting relations of power between agents and levels of governance/government) and the *partnership between the economy* (including the social economy), *the civil society and the government*; i.e. the roles of the state in supporting social innovations as transformative force. Related research questions for future empirical work within SI-DRIVE thus comprise:

Social relations & process dynamics:

- Which mechanisms are most effective in changing the local relations among individuals and social groups?
- Which shifting relations of power between agents and levels of governance/government foster and hinder the growth of social innovations in the social economy and the civil society?
- How to foster the capacity of local coalitions of actors to mobilise a set of social, public or private, as well as local or exogenous resources?
- Which success factors and barriers exist for networks of local actors to achieve impact in social change?

Partnership between the economy, the civil society and the government:

- How and under which conditions are constructive partnerships build between the economy (including the social economy), the civil society and the government?
- Which development dynamics are apparent in combined actions of the economy, the civil society and the government?
- Which governance structures support the growth of social innovations that are set as combined actions?
- Under which circumstances do the state role of a legal regulator, an agent in public-private partnerships, a protector of the logic of private capital, and a provider of resources for the reproduction of a variety groups in civil society, support social innovations?

To sum up, important insights have been gained via literature review from the two concepts regarding the overall research question. That is: how does social innovation lead to transformative social change of existing structures, policies, institutions and behaviour? Our findings within the two concepts under scrutiny, the social economy and the civil society, suggest that change is enforced by enhancing the capacity of local coalitions of actors to mobilise resources; by setting combined actions of the social economy actors and the public and the private actors that create a context where local coalitions of actors can implement development dynamics favouring social cohesion and inclusion; and by building constructive partnerships between the economy, the state and the civil society.

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6 DESIGN THINKING

Petra Schaper-Rinkel (AIT), Petra Wagner-Luptacik (AIT)

6.1 INTRODUCTION: DESIGN THINKING & SOCIAL INNOVATION

Concepts of design thinking and related approaches have gained attention over the past years in a wide range of contexts beyond the communities of designers and design researchers. The core idea is that the ways professional designers solve problems is useful in different contexts where individuals and groups in economy and society try to innovate and make change happen. This section reviews the core ideas of the concept of design thinking with regard to social innovation and social change.

The term 'design thinking' has been part of the agenda of design researchers since Peter G. Rowe (1987) used the term as the title of his 1987 book on solving problems in the making of buildings and public spaces (Bell et al., 2009). According to this view, design thinking is the central means of inquiry by which architects and planners conceptualise and shape buildings and public spaces. Despite of different theoretical positions from simply providing procedures for solving problems in complex planning to normative stands to create desirable architecture and urban spaces, design thinking is in this view an underlying structure of inquiry common to all design practices.

Multiple models and approaches of design thinking have emerged since then, based on different ways of viewing design practices and using theories and approaches from design methodology, engineering, psychology, education, creativity research etc. Nowadays, 'design thinking' is often identified as a new paradigm for dealing with problems in different professions, such as engineering (Dym et al., 2005) architecture, business economics, art, education and educational research and computer science.[36]

Design thinking has become a dominant issue in contemporary design discourse and rhetoric, especially with the design thinking practice of the design and innovation firm IDEO, and with the application of its concept to design education at prestigious d.school, the Institute of Design at Stanford University (Bjogvinsson et al., 2012). The main characteristic of design thinking is its approach to think beyond the omnipotent designer and to overcome the obsession with artefacts, products, and things (Bjogvinsson et al., 2012). This is one of the interfaces between design thinking and social innovation approaches. Design thinking as part of design studies includes the complex social context of design to highlight the contradiction between uniqueness of design and designer as basis of business models in traditional design and the concept of transferable solutions as in social innovation concepts.

Björgvinsson, Ehn and Hillgren (2012) summarise the suggestions of design thinking in the following way:

1. *"that designers should be more involved in the big picture of socially innovative design, beyond the economic bottom line;*

2. *that design is a collaborative effort where the design process is spread among diverse participating stakeholders and competences; and*

3. *that ideas have to be envisioned, 'prototyped', and explored in a hands-on way, tried out early in the design process in ways characterized by human-centeredness, empathy, and optimism"* (p. 101).

From this perspective, design thinking is closely connected with traditions such as 'participatory design', 'design for change' (Bjogvinsson et al., 2012, p. 101) and socially responsible design (Melles et al., 2011).

Design thinking can be seen as a cognitive style, as a general theory of design, and as a resource for organisations (Kimbell, 2011). With regard to developing a theory of social innovation, the aspect of design thinking as a resource of organisations is important.

[36] Engineering, architecture, business economics, art, education and educational research and computer science are the main areas of research on design thinking (Results: 80 from Web of Science Core Collection, TITLE: design thinking, 29.04.2013).

6.2 INNOVATION AS PRACTICE IN DESIGN THINKING

Design thinking and related concepts focus on how innovation happens and how to design innovation. Design thinking refers to the generation and implementation of new ideas about solving problems at the micro level and meeting one or more common goals by mainly focusing the process of design itself. Related concepts such as 'communities of practice' (Wenger & Snyder, 2000) and 'communities of innovation' (West & Hannafin, 2011) focus on the actors and fragile organisational forms that enable innovation. All these concepts can be seen as models to describe and conceptualises 'successful' innovation as practices.

Design thinking in the business community such as Tom Brown (2008) from IDEO, combine in their models an individualistic concept of innovation with needs on the level of the individual:

- Design thinking is *"a methodology that imbues the full spectrum of innovation activities with a human-centered design ethos. By this I mean that innovation is powered by a thorough understanding, through direct observation, of what people want and need in their lives and what they like or dislike about the way particular products are made, packaged, marketed, sold, and supported."* (p. 86)
- Brown (2008) uses the example of Thomas Edison to historicise design thinking by stating that Edison was already *"creating a team-based approach to innovation"*
- Design thinking is seen as basis for innovation and the *"human-centered, creative, iterative and practical approach to finding the best ideas and ultimate solutions."*

In their article '*Design thinking for Social Innovation'* Tom Brown and Jocelyn Wyatt (2010) describe explicitly examples where design thinking is used to create social innovation. One example is from 1990, describing an approach to decrease malnutrition among children in Vietnam. At that time, most solutions relied on government donations of nutritional supplements, but these measures were found to be insufficient. The initiators of an alternative approach, Jerry and Monique Sternin, used an approach called positive deviance, which looks for solutions among individuals and families in the community who are already doing well. They were searching for poor families whose children were healthy, analysed their uncommon but successful strategies to enable other families to find better solutions. This example of combining the 'positive deviance' approach with design thinking relies on *"local expertise to uncover local solutions"*. *"Design thinkers look for work-arounds and improvise solutions […] and they find ways to incorporate those into the offerings they create"* (Brown & Wyatt, 2010, p. 32).

Within the design research community, a design thinking culture is characterised by collaboration, the value of empathy and creating a safe-to-fail environment for innovation to thrive (Koh, 2012, p. 33). The idea of empathy – a key element in design thinking but not yet addressed frequently in mainstream innovation studies – perceives designers as being willing and able to understand and interpret the perspectives of end users and the problems they face (Johansson-Sköldberg et al., 2013).

Kimbell (2011, 2012) points out that *"by focusing on situated, embodied material practices, rather than a generalized 'design thinking', we may shift the conversation away from questions of individual cognition or organizational innovation."* Drawing on insights from anthropology and science and technology studies, she proposes to understand design expertise and activity as constituted materially and discursively in practice:

> *"it helps researchers see design as a situated, local accomplishment involving diverse and multiple actors,*
>
> *it acknowledges the roles of objects in constituting practices, and*
>
> *it de-centres the designer as the main agent in designing"* (Kimbell, 2012, p. 129).

Whereas design thinking focuses on how to design innovation as process, related concepts such as communities of practice focus on the circumstances and the social relations of groups that innovate. Communities of practice are *"groups of people informally bound together by shared expertise and passion for a*

joint enterprise" (Wenger & Snyder 2000). The core concept focuses more on diffusing innovations than on developing (radical) innovation. *"Communities of practice"* (ibid.) and *"communities of innovation"* (West & Hannafin, 2011, p. 822) focus on the actors and fragile organisational forms that enable innovation. All these concepts can be seen as models to describe and conceptualise 'successful' innovation as practices.

6.3 OBJECTIVES OF INNOVATION & MODELS OF INNOVATION DYNAMICS

From an internal perspective, mainstream design thinking is about developing artefacts, process, services and recently systems by bringing into balance the human desirability of products and services with technological feasibility ('what is functionally possible within the foreseeable future') and economic viability ('what is likely to become part of a sustainable business model'). Woudhuysen (2011) challenges the two latter dimensions *"for what is technologically feasible cannot be predicted in advance of a project, and, even within one, partly depends on the scale of economic investment. And that, like economic viability, is partly a political question. Many things can turn out to be viable and sustainable if people decide that they are"* (p. 13).

Verganti (2013) criticises design thinking's neglect of addressing technological innovation, the meaning of products or services, costs, sustainability (ecological questions) and a forward-looking perspective.

Design thinking's orientation towards users and their needs supports a 'demand-pull' innovation model. Design thinking proponents such as Brown and Wyatt (2010) depict innovation dynamic as a cycle. Beside the cycle, the design thinking process is described as "*a system of overlapping spaces rather than a sequence of orderly steps"* (p. 33). These so-called three spaces are inspiration, ideation, and implementation. In this approach,

- inspiration is seen as the driver that motivates the search for solutions;
- ideation is seen as the process of generating, developing, and testing ideas; and
- implementation is characterised as the path that leads from the project stage into people's lives.

The three spaces are connected with aspects and specific practices of the design thinking process.

- Inspiration is linked to the practice of discovering by observing and researching. The core is to identify the problem or opportunity that motivates people to search for solutions.
- Ideation is linked to distilling observations into potential solutions/opportunities for change by encouraging divergent thinking.
- Implementation focuses on selected ideas that are turned into an action plan and where prototyping begins. These practices focus on testing, iterating and refining products and services.

It is stated that *"the whole design process as a matter of meaning creation provides new perspectives on both design and innovation"* (Johansson-Sköldberg et al., 2013, p. 132). But crucial questions remain open: generalised design thinking might not only provide resources for organisation but might also ignore the diversity of designers' practices and institutions which are historically situated. Another problem of the model of design thinking is that the model privileges the designer as the main agent in designing (Kimbell, 2011).

Design thinking concepts claim to be centred on people, arguing for an ideal of human-centred design rather than technology-centred design. This shift implies a change in where power is located (Blyth et al., 2011) even if this is not made explicit. Moving beyond individualistic models towards social or systemic models is challenging contemporary design thinking. Manzini (2007) recognises that *"designers have been active promoters of the ideas of wellbeing and ways of living that we have recently and dramatically discovered to be unsustainable"* (p.233). He thus argues for design and designers res p. design researchers *"to become part of the solution, to become active agents in the transition towards sustainable ways of living, designers must make a profound change in their culture and praxis. New conceptual and methodological tools need to be developed. New ideas, solutions and general visions need to be conceived. And an effort must be made to play a positive role in the social discourse on how to imagine and build a sustainable future."*

To address some of the challenges, (Hillgren et al., 2011) propose the idea of infrastructuring as a way to approach social innovation that differs from project-based design. The activities that are carried out are aimed at building long-term relationships with stakeholders in order to create networks from which design opportunities can emerge. Recognising social innovators' need for novel approaches to connect grass-root initiatives with more established actors, they see a contribution in their infrastructuring process *"where we apply a conscious strategy of constantly looking for opportunities to connect larger institutions and businesses with smaller initiatives"* (Hillgren et al., 2011, p. 180).

Manzini (2007) detects a *"lack of vision"* among designers and design researchers with respect to systemic social innovation. He proposes to foster the vision of a *"multi-local society by establishing a 'vicious circle' encompassing social innovation […] and technological and institutional innovation"* (p. 233) Designers and design researchers could contribute by organising their capabilities in four steps (p. 239f.):

- Focusing and giving visibility to promising cases (highlighting their most interesting aspects).
- Building scenarios of potential futures (showing what could happen if these cases were to spread and consolidate, becoming mainstream ways of doing).
- Developing enabling systems (conceiving specific solutions to increase the promising cases efficiency and accessibility).
- Promoting creative contexts (collaborating in the development of new governance tools).

6.4 DRIVERS, BARRIERS, CAPABILITIES AND CONSTRAINTS OF SOCIAL INNOVATION

For Brown, the barriers for social innovation are located in individuals and their mind set: *"One of the biggest impediments to adopting design thinking is simply fear of failure. The notion that there is nothing wrong with experimentation or failure, as long as they happen early and act as a source of learning, can be difficult to accept. But a vibrant design thinking culture will encourage prototyping—quick, cheap, and dirty—as part of the creative process and not just as a way of validating finished ideas"* (Brown & Wyatt, 2010, p. 35). Systemic change is not the focus of design thinking, but social change is implicitly conceptualises as a result of selection processes and market success. How the innovations from design thinking are used in the broader context of society, is outside the scope of design thinking.

The following description of strengths and weaknesses in applying design to social innovation as perceived by social innovation practitioners Hillgren et al. (2011) indicate some resources and capabilities provided res p. required by social innovator p. Among design thinking's strengths are

- *"the visualization techniques that support the involvement of diverse stakeholder in the process,*
- *the user-centred approach as a complement to top down methods,*
- *fast prototyping to rapidly test models in practice, and*
- *the systemic approach to reflect around food-, energy- or care systems."* (p. 171, citing Geoffrey Mulgan, head of Young Foundation)

Its weaknesses relate to

- *"the lack of economical and organizational skills,*
- *inabilities in driving the implementation process,*
- *the high cost of design consultants that often do not have a long term commitment in the projects, and*

- *the superficiality of some proposals due to the fact that by ignoring the evidence and field experiences designers tend to "reinvent the wheel"* (p. 171, citing Stéphane Vincent, Director of La 27e Région).

6.5 CONCLUSION

Design thinking is an approach to come to innovation. The small-scale social dimensions of innovations are core of design thinking as innovation is seen as result of an interactive iterative process of finding solutions.

Design thinking approaches conceptualise objectives as context specific objectives articulated by the group or organisation that applies design thinking in their innovation processes. Demand is addressed as demand of specific users res p. user groups (micro-level), thus societal demand (macro-level) is beyond the scope of design thinking. There are attempts to extend the scope to larger social entities such as communities or networks in the future.

Design thinking is mainly a programmatic approach and not an analytical approach. Its models of innovation are similar to social innovation models by focussing on practices of groups and by focusing on interaction. Despite design thinking's attested strengths in the inspiration and ideation space (see above), contributions are contested in the implementation space. Due to a lack of evidence, the question of impact (how to create social impact) remains largely unanswered. The elaborated models of how to design solutions with different stakeholders can serve as inspiration and as experimentation tools for creating social innovation.

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INNOVATION AND MANAGEMENT STUDIES

7 INNOVATION STUDIES

Anna Butzin (IAT), Jürgen Howaldt (SFS), Matthias Weber (AIT), Petra Schaper-Rinkel (AIT)

7.1 INTRODUCTION

> *"It should be obvious that social innovation has much to learn from the broader field of innovation studies"* (Mulgan, 2012, p. 22).

Innovation studies is an interdisciplinary area of research driven by economics and social sciences and related sub-disciplines (e.g. organisational studies and science and technology studies). In innovation economics the predominant focus was initially on technological innovations in the form of new products (e.g. new artefacts like machines, computers, cars, etc.) and processes (e.g. manufacturing, agriculture) and their impacts on growth. More recently, the attention has shifted towards a broader understanding of innovation (including in particular service innovation) and the knowledge, organisational and institutional requirements for realising this. Sociological perspectives on innovation have stressed on the one hand the social and behavioural practices and on the other hand wider social structures shaping socio-technical change. Like innovation studies, science and technology studies (STS) examine the creation, development, and consequences of innovation resulting from science and technology in their cultural, historical, and social contexts (Hackett, Amsterdamska, Lynch, & Wajcman, 2008). From a STS perspective, innovation is implicitly central; not as concept and objective but as area of investigation and empirical research.

Innovation studies find their systematic beginnings and point of reference, valid to this day, in Schumpeter's 1912 publication of *Theorie der wirtschaftlichen Entwicklung* [Theory of economic development] (Schumpeter, 1964), in which Schumpeter *"combined insights from economics, sociology and history into a highly original approach to the study of long run economic and social change, focusing in particular on the crucial role played by innovation and the factors influencing it"* (Fagerberg & Verspagen, 2009, p. 220). Schumpeter's economic theory introduced an understanding of economic development as a permanent process of 'creative destruction'. What propels this dynamic, the impetus and origin of economic fluctuation, is innovation in the sense of the *"execution of new combinations"* and of *"establishing a new production function"*. Inventions become innovations if they successfully take hold on the market. Introducing and realising innovations is the actual work and function of entrepreneurship as another central concept of Schumpeter. But Schumpeter did not only focus on technological innovation, he also distinguished between product-related, procedural and organisational innovations that were utilising new resources, and were tapping new markets. Furthermore, he put emphasis on the process of innovation and thereby underpinned co-evolving social processes. Accordingly, the latter occur in the economic arena as well as in culture, politics and social life in order to guarantee the economic efficacy of technological innovations.[37]

The early contributions of STS to innovation came from the history of science, philosophy of science, and sociology of science. A main contribution from the earliest period of science and technology studies is Thomas Kuhn's (1962) work on '*The Structure of Scientific Revolutions'*. His analysis opened up the social analysis of science, although his concept of 'social' was largely restricted to the community of scientists that form the core of a paradigm in a specific field. Kuhn conceptualises scientific progress as based on everyday process of problem-solving instead of seeing it as in traditional approaches as the development towards a 'true' understanding of the inherent structure of the universe. Innovations in science are linked to changing social circumstances such as the death of leading scientists in a certain field. With his concept of paradigms being central for the formation of scientific knowledge he provided new categories and frameworks to analyse the ways of finding new solutions for existing problems and in this way he connected scientific innovation with social innovation in the field of science.

Due to the strong interdisciplinary character and various influences, reflected for example in the recent growth of the interest in service innovations (Coombs & Miles 2000; Gallouji & Djellal, 2010), innovation studies have become a very heterogeneous field, that is *"[…] not, or not yet, organized as a scientific discipline with departments, undergraduate, graduate and post-graduate teaching, curricula, textbooks etc. […]. Thus, the development of innovation studies as a scientific field is part of a broader trend towards increased diversification and*

[37] Given the importance of Schumpeter's legacy in innovation studies, it is not surprising that a significant segment of innovation studies actually calls itself "neo-Schumpeterian economics".

specialization of knowledge that blurs traditional boundaries and challenges existing patterns of organization within science (including social science)" (Fagerberg & Verspagen, 2009, p. 218).

What binds the field together is asking the questions *"how innovations occur"* and *"how innovation differs"* (Fagerberg, Mowery, & Nelson, 2005, p. 9) and, in consequence, the study of the systemic character and of the resulting complex dynamics and impacts of the process of innovation.

However, the subject of social innovation has not yet become a distinct field of research. Rather, emphasis was put on the social preconditions, effects and processes relating to technical innovations (Rammert, 2010). Social innovation rarely appears as a specific and defined term with a clearly delineated scope but usually is used as a sort of descriptive metaphor in the context of social and technical change. *"Innovation-related thinking is asymmetrical. The emphasis is on technical innovation"* (Rammert, 1997, p. 3). Phenomena of social change are consistently looked at in connection with technological innovation in techno-sociology and technical research in the prevailing paradigm of a social-technical system but not from the perspective of an independent type of innovation that can be demarcated from technical innovations. While the changed and intensified social and economic problems identified in public discourse are increasingly prompting a call for extensive social innovation, the topic continues to remain a largely under-explored area in the social sciences as well as government innovation policies. *"The field of social innovation remains relatively undeveloped"* (Mulgan et al., 2007, p. 3).

The traditions of innovation studies from social sciences and humanities, here summarised under headline of science and technology studies, have always been more critical with regard to the purposes that were inscribed into innovations. Not least, they have been among the intellectual driving forces behind the establishment of technology and innovation assessment activities in many countries. Building on the sustainability debates of the 1990ies, innovation studies have come to stress more and more other than growth objectives of innovation. This is reflected, for instance, in research strands such as ecological economics, which deals also with the negative ecological consequences of economic activities, and for that matter also of innovation. It is also reflected in the current policy debates about the role of innovation for tackling societal challenges, and the emphasis put on the need for transitions in this context. The shift in policy attention to other than traditional growth purposes of innovation (which still remain important!) may explain the strong policy interest in both social innovation and advanced forms of innovation studies.

Despite this neglect of attention to social innovation, the authors of this chapter see fundamental potential in the derivation of questions and insights from innovation studies and STS for understanding the process dynamics behind social innovation, and thus for guiding its empirical investigation and interpretation. Innovation studies and research on social innovation not only share some central research questions, but the significance of innovation studies resides also in its scientific openness and its characteristics as a boundary spanning field of research. Vice versa, research on social innovation will surely be an important input to enrich and further develop the body of knowledge in innovation studies.

In light of the upcoming empirical work in the project SI-DRIVE, it is therefore the major intention of this chapter to discuss building blocks and achievements of innovation studies and STS that might inform the study of social innovation (chapter 7.2) and that are of relevance for the key dimensions of social innovation in SI-DRIVE. Based upon the discussion of building blocks, research questions will be formulated, that can be discussed and empirically studied in future work packages of SI-DRIVE. The chapter concludes with a discussion about how mechanisms of social change as an important frame for the SI-DRIVE project, are seen from the point of view of innovation studies (chapter 7.3).

7.2 BUILDING BLOCKS AND ACHIEVEMENTS ON INNOVATION STUDIES IN THE LIGHT OF THE KEY DIMENSIONS OF SI-DRIVE

Due to the interdisciplinary character of innovation studies, different streams and research areas have emerged over time (Fagerberg, Landstrom, & Martin, 2012). Innovation studies in social sciences are dedicated primarily to the relevance of the social in and for the process of innovation, looking at innovation from different perspectives and with different emphases. Thereby, social sciences have made fundamental contributions to the development and spread of an enlightened sociological understanding of innovation and crucially enhanced the body of knowledge about innovation processes, their determination and their social and economic impact (Fagerberg, 2005, p. 1f.).

An important stream within innovation studies, inspired by economics, is interested in growth mechanisms and sees innovation mainly as an engine of growth, as mentioned earlier. Related research substantiated the field by putting much emphasis on evolutionary theorising as an alternative approach to neoclassical economics, on knowledge-based development as a crucial resource of firm growth, on firms' heterogeneity in terms of organisational routines, markets and across sectors; on the correlation of research and development (R&D), patenting and innovation; and national systems of innovation (Fagerberg & Verspagen 2009, p. 222).

Against this background, it is almost impossible to summarise a diverse field like innovation studies in one single chapter without dedicated focus on selected aspects, even if this implies that other aspects remain unmentioned. Therefore, building blocks were chosen in order to further the five key dimensions of social innovation defined in SI-Drive. To recall, the SI-DRIVE key dimensions are labelled:

1. concepts and understanding;
2. objectives and social demands;
3. innovation cycle;
4. resources, capabilities and constraints;
5. drivers, barriers and governance.

Accordingly, promising thematic building blocks to be discussed in this chapter are (see also figure 10):

- The systemic understanding of innovation, which is of relevance for addressing questions related to innovation drivers, barriers and governance (key dimension 5). Innovation systems and their components (e.g. economic base, level of specialisation, research and education system, providers of capital, and knowledge transfer between the components) are critical for innovation performance and a major driver (or barrier) of the capability to innovate. Of particular prominence is also the attention paid to the role of institutions in shaping and framing patterns of behaviour and cooperation in a systemic context, be it at firm level, in specific sectors or countries. However, the systemic understanding of innovation employs a technology-centric view as reflected in the strong role accounted to research and development, technological progress and dedicated supporting infrastructures (key dimension 1).

- The focus on social networks as a central organisational form by which innovations are carried out. Social networks are considered as resources (key dimension 4) that can be utilised in innovation processes as they are the connecting element between various heterogeneous actors who provide complementary competences and resources.

- The emphasis on different roles and functions of innovation actors; both on collective and individual level. For example, constellations of actor types are sometimes labelled as 'triple-helix' (private, public and research actors) and by taking into account the influence of society on innovation performance, also 'quadruple helix' (societal, public, private and research actors). By shedding light on actors, this building block also implies that innovation can be an ambivalent activity with different implications generating winners and losers, success, conflict and new social problems at the same time (key dimension 2 and 5).

- The view on innovation as a context-dependent phenomenon, strongly influenced by the socio-cultural, institutional and geographical background of the actors involved. The key argument is that learning and cooperation in innovation development is facilitated by direct face-to-face contact with cooperation partners, implying that it is easier to establish this cooperation with actors that are located close-by. As a consequence, the formal and informal institutions guiding interactions are of major importance. In this vein, the quality of the innovation context can be considered a resource as well (key dimension 4).

- The relevance of studying knowledge as a major resource of innovation development. Innovation always depends on the generation of new knowledge, of new, cross-sectoral combinations of existing knowledge, and on the means by which knowledge is transferred (key dimension 4).

- Increasingly, and building on a systemic approach, emphasis is put on the dynamics of innovation, as expressed in evolutionary approaches, and the multi-level perspective. In these approaches, time is an important variable to understand how innovation occurs and how it is interwoven with broader (societal) contexts. In so doing, the approaches underline the non-linear trajectories or life-cycles of innovation as expressed in aspects of complexity, risk and reflexivity, incompatibility with planning and limited manageability (key dimension 3).

In the following, the thematic building blocks will be synthesised. Emphasis is put on key achievements and broadly acknowledged insight, in order to elaborate research questions and hypotheses for studying social innovation in the context of SI-DRIVE.

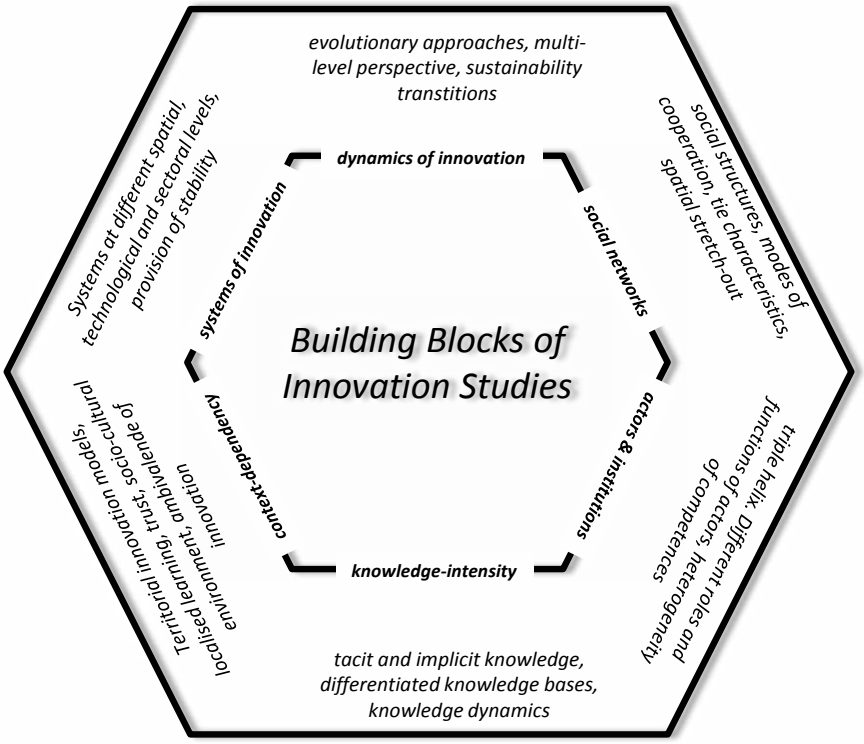

Figure 10: Relevant building blocks of innovation studies for research in SI-DRIVE

7.2.1 Innovation systems

Systemic views on innovation (Lundvall, 1985, p. 1992) conceptualise the influence of national, regional or sectoral determinants on innovation processes and performance. Accordingly, Freeman (1987) defined National Innovation Systems (NIS) as *"a network of institutions in the private and public sector whose activities and interactions engender, modify and spread new technologies"* (Freeman cited in Schienstock & Hämäläinen, 2001, p. 81). NIS represent a set of institutions that contribute to the development and diffusion of new technologies and these *"institutions provide the framework within which governments form and implement policies to influence the innovation process. As such, it is a system of interconnected institutions to create, store, and transfer the knowledge, skills, and artefacts which define new technologies"* (Metcalfe 1995 cited in OECD 1999). 'Institutions' is thus a central concept of the NIS literature, even if it is primarily understood as formal institutions, such as in particular research performing bodies, ministries, agencies and other intermediaries. NIS have since become the categorical framework for analysing (national) innovation capabilities and are considered an important foundation of governmental innovation policy (Welsch, 2005, p. 67),

NIS are *"structures for dealing with knowledge*" (p. 69), i.e. they are forming and spreading knowledge and facilitate knowledge combination across sectors. They are a component in an economic and social system and possess strongly interrelated sub-systems, including a production system, a system of industrial relationships, the financial system, the labour market, the legal system, and education. Due to the interrelatedness, NIS are *"emphasizing the role of interaction between different actors and how this interaction is influenced by broader social,*

institutional and political factors" (Fagerberg & Verspagen, 2009, p. 222). NIS are not planned systematically they are rather shaped by a given economic and social system and therefore path dependent - and so cannot be easily manipulated nor copied. Their emergence can only be reconstructed and understood ex post.

The objective of systematic comparisons of different NIS (Nelson, 1993) beginning in the 1980s to give clear recommendations for courses of action by conducting more policy research was, however, never achieved. Quite to the contrary: *"Greater research plagued the construct of national innovation systems more and more"* (Krücken, 2006, p. 6). Realistically, the variety of variables that needed to be taken into account made a clear assessment and evaluation of the overall system impossible. Furthermore, an assessment of the specific strengths and weaknesses of a NIS is subject to constant semantic flux, or rather is the result of a process of social construction.

Still, in spite of this criticism, the NIS approach has been highly influential in policy circles, including OECD and EU, by serving as a heuristic device for designing monitoring and bench-marking exercise of innovation systems, as well as for informing innovation policy. For example, efforts to intensify science-industry relations in many OECD countries as a means to enhance innovation performance in the late 1990ies were inspired by NIS-thinking, and also many emerging and developing economies took adapted innovation system approaches as guiding references for informing the innovation-led development policies.

Numerous empirical investigations suggest that through *"Regional Governance Structures in a Globalized World"* (Braczyk, Cooke, & Heidenreich, 1998), relationships are established among regional actors and forms of regional cooperation have emerged that are systematically used to develop and foster innovation more effectively than on the national level. In an international comparative analysis of fourteen regions, Braczyk et al. (1998) identified three different coordination mechanisms of regional innovation systems: coordination via the market and informal relationships, network coordination, and central coordination. In every case, the cooperation (quality) of heterogeneous actors and the existence of intermediary arrangements regarding the organisation of processes of collective learning and knowledge transfer seem critical for success. Regional institutions, here understood not only as formal institutions but also as rule systems, or explicitly and implicitly shared norms and values, are considered important for enhancing the effectiveness of regional innovation systems.

Focusing on sectoral rather than geographic delimitations of innovation systems, Malerba (2002) introduced the concept of sectoral systems of innovation and production. Apart from the key role of actors and institutions, Malerba stress the importance of processes of knowledge production and of embedding in sectoral production structures. Building on and extending Malerba's perspective, Dolata (2011) introduced his theory of socio-technical transformation, which equally stresses sectoral characteristics as key factors of adaptivity and change in the context of innovation. The sectoral perspective promises to be particularly interesting as source of inspiration for the analysis of social innovation in specific domains.

One of the most recent developments in the context of innovation studies tries to capture the essence of innovation systems by proposing a set of functions or key activities that need to emerge in the context of innovative activities for innovation systems to emerge and get established (Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007; Hekkert & Negro, 2009). While very much geared towards technologies in the making, and from which the term 'Technological Innovation Systems (TIS)' has been derived, the approach is nevertheless interesting in moving towards more abstract categories for describing how innovation systems emerge and evolve.

A critical objection raised against innovation systems analysis is the application of a reductionist approach when measuring their performance. The dominant emphasis is put on R&D expenditures as input indicator, and the respective output tends to be measured by patent applications. Due to the difficulties of capturing them in simple terms, the more sophisticated analysis of innovation systems internal operations and mechanisms, including the role of formal and informal institutions, often remains hidden behind the simplistic key input/output indicators. This emphasis becomes especially clear when considering the European Commission's 'Lisbon Strategy 2010', in which national R&D was a decisive criterion to evaluate national innovation performances' at the expense of other indicators. This is why Werle (2000) claims that *"A central weakness in the work on national innovation systems lies in the lack of a theoretically tenable concept of institutions"* (p. 315). This is partly the fault of the early definitions of NIS which strongly emphasised the role of formal institutions, and for that matter of public and private research performing organisations. In the course of the years,

however, the understanding of institutions in the innovation systems literature was considerably broadened. Sectoral and regional innovation system studies started to look into the respective institutional context conditions, and the literature on varieties of capitalism pointed to the importance of structural and cultural factors for shaping innovation patterns (Hall & Soskice, 2001). In spite of this opening up of the scientific debates on innovation systems towards broader notions of institutions that matter, the debates in innovation policy-making continued to refer to rather narrow interpretations of innovation-related institutions until recently. The emphasis put on closer interactions and coordination between research and innovation policy on the one hand, and sectoral policies on the other hand, has become a central concern of policy approaches for tackling major societal challenges, and it recognises the importance of wider institutional frameworks for shaping innovation. In this light, the criticism that the notion of institutions is too narrowly conceptualised in the innovation systems literature cannot be sustained anymore. Hollingsworth (2000) argued, for instance, that the individual components of the institutional structure of a society and their relationships to one another must first be identified before statements can be made about their influence on the ability to innovate (p. 596ff.). More recent approaches to innovation policy reject this mechanistic relationship between institutions and innovations and argue instead that a broader range of institutions matters and needs to co-evolve for innovations to succeed and induce social change. In some cases, innovations at micro-level precede institutional change (e.g. in the case of the internet), in others institutional adjustments induce innovation (e.g. environmental regulations).

The analytical concept of innovation systems focus on technological innovation and expanding the concept to social innovation makes it vague and abstract: A 'national social innovation system' would include the overall set of institutions that contribute to the development and diffusion of society and therefore it is a synonym for the whole political system. The NIS approach is not only a major academic concept, it is also a policymaking tool (Sharif, 2006) and as a policymaking tool it might be interesting to investigate it with regard to the upscaling of social innovation.

7.2.2 Innovation networks

During recent decades, the role of networks in the process of developing technical innovation has been intensively analysed. Networks can be described as a result of a profound transformation of the innovation process, especially from the mid-1980s onwards (Kline & Rosenberg, 1986). This transformation has been characterised by increased reliance on external sources of research and development and greater collaboration with competitors as well as customers when developing new products and processes (Powell & Grodal, 2005, p. 57). By comprehending innovation as a complex process of interaction, innovation research left behind a linear understanding (Kline & Rosenberg, 1986; Howaldt & Schwarz, 2010). As Mowery and Nelson (1999) put it, *"the diversity of institutional actors and relationships in the industrial innovation process has increased considerably"* (p. 9).

Various forms of inter-organisational partnerships have emerged, often being essential components of corporate strategies. Inter-organisational co-operations can be just short-time and bilateral, without resulting in a network structure, but often inter-firm relationships evolve into networks, which can be formal and informal, have a defined durability (e.g. project networks) or exist for decades. The question is how organisations can benefit from network co-operation and why this is so important for innovation processes. The most obvious advantages of network co-operation have to do with better information, larger resources and a higher status (Beckman & Haunschild, 2002; Ahuja, 2000; Kogut, 2000); arguments that matter in partiuclar for smaller firms. As Powell and Grodal (2005) put it, *"interorganizational networks are a means by which organizations can pool or exchange resources, and jointly develop new ideas and skills"*, since *"no single firm has all the necessary skills to stay on top of all areas of progress and bring significant innovations to market"* (p. 59).

In this sense, creation and recombination of knowledge becomes one of the most important results of network co-operation: *"Heterogeneity in the portfolio of collaborators allows firms to learn from a wide stock of knowledge. Organizations with broader networks are exposed to more experiences, different competencies, and added opportunities. […] By having access to a more varied set of activities, experiences, and collaborators, companies broaden the resource and knowledge base that they can draw on"* (Powell & Grodal, 2005, p. 59f.). From the perspective of firms, interorganisational learning within networks can lead to improving competitive position and creation of economic value. In case of social enterprises, network cooperation can result in creation of social value.

Forms of co-operation and types of networks are manifold. Based on the dimensions *"temporal stability and forms of governance",* Powell and Grodal (2005) distinguish between four key types of networks in the context of innovation processes: *"informal networks (based on shared experience), project networks (short term combinations to accomplish specific tasks), regional networks (where spatial propinquity helps sustain a common community) and business networks (purposeful, strategic alliance between two parties)"* (p. 61). These types of networks differ in manifold aspects: in purpose of co-operation, their intensity and binding force, number and structure of existing partners and their durability. What is contested is the 'right balance' between heterogeneity as a means to access diverse sources of knowledge and resources, and homogeneity as a pre-condition for integrating the different inputs for a joint purpose.

7.2.3 Actors and functions of actors

The shift from a linear towards an interactive innovation model turned attention to the question *"how actors cooperate with each other?",* and *"what different functions do they fulfil in the process of innovation?".* A seminal contribution was of Etzkowitz and Leydesdorff (2000) in which they introduced the *"Triple Helix of university-industry-government relations"*(p. 109). Thereby, Etzkowitz and Leydesdorff set apart from a focus on single entrepreneurs and firms. Their claim was that university-industry-government relations and related finance structures generate *"a knowledge infrastructure in terms of overlapping institutional spheres, with each taking the role of the other and with hybrid organizations emerging at the interfaces"* (p. 111).

The most well-known examples of such hybrid organisations are innovation incubators and their explicit function to transfer university research into entrepreneurial, market-based actions. Incubators are the manifestation of 'trilaterial networks' of university, industry, and government actors, as the cases of the MIT and Stanford prominently illustrate. Incubators of MIT and Stanford research centres spurred regional development and were integral part of accompanying economic development strategies (Etzkowitz, 2002). In Europe, research organisations such as Fraunhofer (Germany), AIT (Austria), TNO (The Netherlands) and VTT (Finland) shall, amongst others, fulfil similar functions.

Highly relevant for studying social innovation, Carayannis and Campbell (2009) took considerations of Etzkowitz and Leydesdorff as starting point to suggest a so-called quadruple helix. A quadruple helix, in this context, means to add to the above stated helices a 'fourth helix' that we identify twofold, as the *"media-based and culture-based public"* as well as the *"civil society […]. This should emphasize that a broader understanding of knowledge production and innovation application requires that also the public becomes more integrated into advanced innovation systems. The public uses and applies knowledge, so public users are also part of the innovation system"* (Carayannis & Campbell, 2012, p. 13). Thereby, influence on the development of innovation of *"bottom-up civil society and grassroots movements"* (p.3) is strongly underpinned.

An additional perspective strengthening the argument of civil society as the fourth helix is taken by research on co-creation and user involvement. Related studies claim that *"Informed, networked, empowered, and active consumers are increasingly co-creating value with the firm"* (Prahalad & Ramaswamy, 2004, p. 5). Under the heading *'A New Nature of Innovation'*, a recent OECD report specifies the integration of users as follows:

"In a new nature of innovation, we will see a new balance between technology-driven, competitive-driven and user-driven innovation – with much more emphasis on the users. We will see new business thinking and new business models where companies assume a much higher level of social responsibility." (OECD, 2009, p. 9)

Apart from new actor relations and power structures in innovation processes, another important achievement of the focus on actors in innovation studies is the ambivalence connected to innovation. The implementation of innovation and new technologies goes along with the displacement of previous ones. While innovation generates winners, it also generates losers at the same time (Kogan, Papanikolaou, & Stoffman, 2013). In fact, this ambivalence was acknowledged as early as Schumpeter introduced the process of 'creative destruction', even though the vast majority of studies clearly focus on the successful and positive effects of innovation processes.

Science and technology studies broadened the understanding of actors with many of their concepts; the most influential and contested approach is the actor-network theory (ANT) (Latour, 2005). The approach treats objects as part of social networks and emphasises therefore the impact of technologies for social innovation.

7.2.4 Knowledge and innovation

Shorter innovation cycles propelled by globalisation, increased value-generation through services, new technologies and markets, these are all phenomena based on an increasing knowledge-intensity of economic actions. *"Economic capital – or, more precisely, the source of economic growth and value-adding activities – increasingly relies on knowledge",* as pointed out by Stehr (2007a, p. 65).

In this light, research interest is directed to studying the role of knowledge as a driver of innovation development, and in particular on the *"opportunities and difficulties associated with sharing knowledge and transferring 'best practices' within and across organizations"* (Orlikowksi, 2002, p. 249). The process of generating economically relevant knowledge within and between firms, networks and communities is acknowledged as a social practice and a collective action (Brown & Duguid, 2001; Stehr, 2007b; Orlikowski, 2002; Ibert, 2007; Howells, 2012). It implies that knowledge cannot be transferred as a materialised thing or object. Rather, *"knowledge is dynamic, since it is created in social interactions amongst individuals and organisations. Knowledge is context-specific, as it depends on a particular time and space"* (Nonaka, Toyama, & Konno, 2000, p. 7). It needs to be shared through social interaction, i.e. a process of *"creating, using, transforming, moving and diffusing knowledge"* (Strambach, 2008, p. 153).

A crucial starting point for the study of knowledge was the conceptualisation of the two knowledge dimensions of tacit and explicit knowledge developed by Polanyi (1967). Accordingly, knowledge is always comprised of tacit and explicit elements, whereby the tacit dimension is not easy to communicate since *"we know more than we can tell"* (p. 4) – and experience, imitation, and face-to-face cooperation with others is assumed to be a prerequisite for acquiring tacit knowledge. In contrast, explicit knowledge can be transferred across larger distances through codes, formulas, data-sets, etc. (Nonaka et al., 2000).

Against this background, Maskell and Malmberg (1999) see it as a *"[…] a logical and interesting consequence of the present development towards a global economy is that the more easily codifiable (tradable) knowledge can be accessed, the more crucial does tacit knowledge become for sustaining or enhancing the competitive position of the firm"* (p. 172 cited in Asheim & Gertler, 2005, p. 292; see also Nonaka et al., 2000). These insights enabled innovation scholars to refer to innovation as being learning intensive and essentially characterised through 'sticky' tacit knowledge that remains local and does not flow easily (Howells, 2002).

A recently suggested approach that was developed to move beyond the often employed tacit/explicit dimensions is the *"differentiated knowledge base concept"* (Asheim, 2007). Within this debate varying ways of learning and knowledge creation in differentiated sectors are classified according to an analytical, synthetic and symbolic knowledge base (Asheim, 2007). Thereby, two essentially new aspects are addressed. Firstly, focus is on the content of knowledge creation and innovative activity and it is assessed how the content of interactions shapes network structures and interactions. Secondly, the differentiated knowledge based concept embodies a cross-sectoral understanding of economic activities that implies commonalities in knowledge generation across sectoral boundaries (Martin & Moodyson, 2013).

In an analytical knowledge base, knowledge is generated while applying natural laws, modelling and rationalised processes. Typical applications are within basic sciences, bio- or nanotechnology where knowledge is highly formalised, universally valid and where there are global codes to understand it (Asheim, 2007). In synthetic knowledge bases, knowledge is mainly generated through new combinations of existing knowledge such as in engineering with the major modes of learning being developing and testing, trial and error. Symbolic knowledge bases (i.e. art-based industries such as media and design) are strongly influenced through tacit knowledge since innovations need to be authentic in order to be adapted in specific socio-cultural contexts. It might be of interest to study what kind of characteristics (e.g. intangibles) knowledge has that is applied in social innovation processes.

7.2.5 Geographical context of innovation

The questions *"why economic growth is unevenly distributed across space?",* and *"why innovative activity in some regions seems to be more successful than in others?",* are central in the study of the geography of innovation. The spatial concentration of innovation, also observable in empirical terms, allows the conclusion that *"geography is fundamental, not incidental, to the innovation process itself: […] one simply cannot understand innovation properly if one does not appreciate the central role of spatial proximity and concentration in this process"* (Asheim & Gertler, 2005, p. 292).

A key explanatory factor for spatially concentrated innovation activities is the influential role of tacit knowledge as expressed in the concept of 'localised learning' (Maskell & Malmberg, 1999). Spatial proximity facilitates emergence of two necessary preconditions for accessing the tacit dimension of knowledge. These are social interaction and trustful relations among actors, both of which are strongly interrelated.

The existence of trust among individuals is crucial to share tacit knowledge (Nonaka & Takeuchi, 2000), as also pointed out by Morgan (2000): *"The main benefits of trust would seem to be first, that it saves time and effort to be able to rely on others; second, that it reduces risk and uncertainty; and third that it expedites learning because the parties are privy to thicker and richer information flows on account of the fact that people divulge more to those they trust"* (p. 8). Building up of trust is a long-lasting process, based on the *"judgment one makes on the basis of one's past interactions with others"* (Bathelt, Malmberg, & Maskell, 2004, p. 50), i.e. a process maintained through repetitive meetings. To meet people on frequent basis is easier to be organised among employers of neighbouring firms, among people sharing the same language, as well as the same socio-cultural background (Nonaka & Takeuchi, 1995), i.e. within spatial proximity.

The growing field of cluster research and interest in innovation networks too, provided evidence of the importance of spatial proximity and interpersonal connections for innovative activities within a cluster or a regional network: *"Proximity, arising from the co-location of companies, customers, suppliers, and other institutions, amplifies all of the pressures to innovate and upgrade"* (Porter, 1998, p. 21). One of the ways how clusters affect the firms' competitiveness is increasing the capacity of cluster participants for innovation and productivity growth. This influence depends on *"personal relationships, face-to-face communication, and networks of individuals and institutions that interact"* (p. 21). From a policy perspective, the institutional conditions guiding these interactions are particularly interesting levers of change.

However, it shall not be unnoticed that the 'proximity paradigm' of innovation development is more and more questioned. Empirical evidence shows that relevant knowledge for innovation development can also be sourced from multiple locations (Crevoisier & Jeannerat, 2009).

7.2.6 Dynamics of innovation

Being rooted in Schumpeter's thinking, innovation studies have been concerned with the dynamics of innovation since its beginnings. Early science-push and demand-pull models were superseded by more interactive, non-linear and multi-facetted conceptual models, applied to the micro-level of innovation processes at firm level as well as at meso- and macro-level of national economies.

Science and technology studies analyse dynamics of innovation in different ways: For the social shaping of technology (SST) approach are 'choices' (not necessarily conscious ones) inherent in shaping innovation. Technology and society are connected through 'mutual shaping' that results in specific innovations (MacKenzie, 1985).

With their Evolutionary Model of Economic Change, Nelson and Winter (1982) established the foundations of modern innovation economics, as a departure from neoclassical thinking. Already their early model aimed to explain the macro-dynamics of economic change on the basis of micro-foundations; an aspiration that has permeated through most subsequent efforts of conceptualising and modelling the dynamics of innovation in society.

The then novel evolutionary understanding of innovation gave rise to a number of highly influential concepts such as technological trajectories and paradigms (Doris, 1982), lock-in effects and path-dependencies (Arthur, 1988; David, 1985), both by way of conceptual and formal models. The emphasis of these modelling efforts may have been on technological innovation, but the mechanisms at play can be – and have been – interpreted with regard to other types of innovation. As a next step, complex systems thinking influenced the understanding of innovation dynamics, using for instance agent-based models as tools for capturing and simulating the emergence of socio-technical change as the result of micro-processes (Ahrweiler, 2010).

Today, innovation is understood as evolving through social processes that are dynamic themselves, but also as interacting with change processes at broader level structures including the macro scale. The first approach to theorise related phenomena was elaborated in the Kondratiev cycles according to which economy is subject to cyclic change. This change is driven by the development and diffusion of basic innovations. Freeman and Perez

(1988) evolutionary interpretation of the Kondratiev cycles provided the observable macro-patterns with a micro-economic underpinning.

However, in spite of these novel inroads to the understanding of innovation dynamics, it remains an open question *"through what kind of concrete patterns and mechanisms economic and social change takes place, especially with respect to the interrelationship between micro, meso and macro levels?"* (Geels, 2002)

Inspired by both innovation economics and science and technology studies, these research questions within innovations studies have been taken up by the so-called multi-level perspective on socio-technical transitions (Geels, 2002; Geels & Schot, 2007), as well as the more policy-oriented approach of transition management (Kemp, Loorbach, & Rotmans, 2007; Servatius, Schneidewind, & Rolfing, 2012, Loorbach, 2010). Its strength is in the clear distinction between experimental learning in specific niches, structural and institutional changes of what is called the socio-technical regime, and the wider societal context, in which these change processes are embedded. From the perspective of MLP, diffusion is more than the uptake of innovation. It is intimately connected to fundamental changes of the socio-technical regime level. The latter are driven by niche accumulation, technological add-on and hybridisation (Geels, 2002). These elements are riding along with market growth and are eventually giving rise to what is sometimes called 'system innovations' that are characterised by the co-evolution of social, technological, cognitive, organisational and institutional changes.

Technological niches and sociotechnical regimes *"have the character of organisational fields (community of interacting groups). For regimes, these communities are large and stable, while for niches they are small and unstable. Both niche and regime communities share certain rules that coordinate action. For regimes, these rules are stable and well articulated; for niche-innovations, they are unstable and 'in the making'"* (Geels & Schot, 2007, p. 401).

Geels and Schot (2007) differentiate between four types of transformations. Within the type 'endogenous renewal' transformation is activated by actors of an existing regime with internal resources, whereas shocks cause the necessity of a prompt phase of 're-orientation of trajectories'. 'Emergent transformations' arise due to uncoordinated exogenous pressure and a 'purposive transition' as intentionally coordinated processes of change from exogenous resources.

Geels and Schot agree upon critiques that a more differentiated understanding of transformation processes is needed and that it should be an issue of future research. However, what is important with respect to the multi-level-perspective for the research in SI-DRIVE is that the perspective allows a more fine-grained analysis of the relationship between social innovation on the one hand and social and institutional change on the other. In our context, we may prefer to speak of trans-formative social change induced by social innovation, but this is just a matter of wording. The multi-level-perspective may have its origins in technology studies, but there is no reason why it could not be adapted for purposes of social innovation (which, often do have a technological component as well, depending also on the definition of 'technology').

7.3 CONCLUSION AND RELATION TO SOCIAL CHANGE

As has been worked out in the chapter, innovation studies analyse innovation by taking into account different angles at the same time. They may be structured around the following dichotomies:

- Micro-macro
- Structure and agency
- Disciplinary depth and multi-/inter-disciplinary breadth
- Experimentation with new social practices as well as institutionalisation
- Stability and complex dynamics
- Spatial dynamics between local/regional specificity and global integration

Against this background, social sciences related innovation studies focussed strongly on economic and technological innovation and contributed to the development and spread of an enlightened sociological understanding of innovation. The result is enhanced knowledge about innovation processes, their determination and social and economic impact (Fagerberg, 2005, p. 1f.)

The central elements of a sociological and economical understanding of innovation could be summarised as follows: the systemic and social character of innovation that cannot be reduced to technical and organisational innovation; aspects of complexity, risk and reflexivity; incompatibility with planning and limited manageability; an increasing variety and heterogeneity of involved agents; non-linear trajectories as well as a high degree of context and interaction contingency. Consequently, technical and social innovations can be seen as closely intertwined and can only be captured in their interaction with one another.

In view of the recent advances in innovation studies and the emergence of growing confusion and contradictions in prevailing innovation policies, the question arises whether the diversity of newly emerging innovation concepts, which complement the technology-centred innovation paradigm of the industrial society, need to be re-framed under the roof of a new innovation paradigm.

In recent years, this has been recognised in innovation economics as well as in science and technology studies, and it has led to substantially revised research agendas. However, what is still needed is a comprehensive and integrative perspective on innovation and social change with all its facets, and involving the entire institutional structure and the associated way of thinking and basic assumptions can be interpreted, in our opinion, in terms of the development of a new innovation paradigm (Howaldt & Schwarz, 2010; see also Bullinger, 2006, p. 14). Such an approach could open up fundamentally new perspectives on recognised problems and thus simultaneously unlock new possibilities for action. Especially in light of the tensions and paradoxes in innovation policy at present, this sort of interpretation of the current changes may open up new perspectives on innovation.

While the details of such a new innovation (policy) paradigm may still remain opaque, at least two key features seem to stand out. First of all, the new paradigm needs to explicitly address the issue of purpose and direction of change. Innovation needs to be seen as serving a purpose in society; and a purpose that goes well beyond economic growth. Innovation thus must be seen as part and parcel of processes of social and institutional change. Secondly, the social and technological components of innovation should not be seen as contradictory, but as inherently connected. Technological innovation cannot be understood without complementary social innovation.

The argument for the thesis of the emergence of a new innovation paradigm is supported by the work of Bruland and Mowery (2005). The authors believe that fundamental changes occur in the structures of innovation systems in different time periods (p. 374). These changes are described as an expression of different phases of the industrial revolution. When a new innovation system takes hold, it leads to far-reaching changes in the entire structure of the institution. *"But both of these episodes highlight the importance of broad institutional change, rather than the 'strategic importance' of any single industry or technology"* (p. 375). As such the *"leading industries"* (p. 374) have tremendous influence on the prevailing innovation modi.

As a key characteristic of the new innovation paradigm, that also implies an innovation process opening up to society (FORA, 2010, p. 15ff.). Companies, Technical Schools and Research Institutes are not the only relevant agents in the process of innovation. Citizens and customers no longer serve as suppliers for information about their needs (as in traditional innovation management); they make contributions to the process of developing new products to resolve problems. Terms and concepts such as 'open innovation' (Chesbrough, 2003), customer integration (Jacobsen, 2005) and networks (Powell & Grodal, 2005; Howaldt & Schwarz, 2010) reflect individual aspects of this development. At the same time, innovation – based on economic development – becomes a general social phenomenon that increasingly influences and permeates every aspect of life (Rosa, 2005).

Key lessons learned and research questions for the analysis of social innovation in SI-DRIVE

Table 9 summarises the learnings from innovation studies in relation to the five key dimensions of the SI-DRIVE approach:

Key Dimensions	Key lessons learned
Concepts and understanding	Early innovation studies primarily see *innovations as the engine of economic growth*, More recently, there is a growing focus on the social embedding of technological innovations and also on service and ecological innovations. Innovation studies of social sciences focus on *social preconditions and influencing factors* of innovation development. Science and technology studies (STS) have been among the driving forces to establish *technology assessment* in many countries.
Objectives and social demands	Science and technology studies have been critical against the unquestioned, and positively perceived effects of innovation for economic growth. They have underlined that *innovations are ambivalent, can cause unforeseeable social side effects and new social problems*. Thus the objective of fostering economic growth through the support of innovation development has also critical connotations. Recently, innovation support (also regarding technology development) is more directed towards today's grand challenges (climate change, demographic change, poverty reduction, …).
(Social) innovation lifecycle	From the perspective of innovation studies, *the focus on the innovation lifecycle seems too narrow*. This especially becomes clear when considering evolutionary and multi-level approaches that stress the complex and social character of innovation, the role of networks for innovation, as well as processes of institutionalisation. All these reflect (iterative) dynamics that cannot be reduced to stages of concrete innovation processes as suggested in the lifecycle approach.
Drivers, barriers and governance	Cooperation among many actors in networks facilitates the development of innovation. It increases the range of competences and spreads risk (open innovation). Cooperation of actors from different backgrounds (e.g. different sectors, customers, scientists,…) seem to be fruitful in innovation development. It allows new combinations of existing knowledge and enhances creativity and innovativeness. Especially customers/users play an increasingly appreciated role in innovation processes. They are involved already in early stages and inform/optimise the innovation process from the perspective of end users. Certain constellations of actors (triple helix and recently quadruple helix) seem to be a fruitful driver for the generation of knowledge and innovation. Institutional conditions can be important drivers and barriers to innovation, and thus potential levers for innovation policy.
Resources, capabilities and constraints	Infrastructures of Innovation - Universities, Research Institutes, Science parks and Technology centres; - Finance and Innovation (Venture Capital); - Innovation Policies Regional context and geographical proximity to competent actors, often mediated through collaboration networks

Table 9: Key dimensions and key lessons learned

In order to operationalise the issues discussed in this chapter for future conceptual and empirical work in SI-Drive, the following set of research question has been developed out of the above table:

- What are the unforeseeable side effects and social problems of social innovation? Do we need a social innovation assessment?

- Are established concepts developed in innovation studies (innovation systems, territorial innovation models, triple- and quadruple-helix, etc.) transferable to the subject of social innovation? Or maybe just parts of them? Or should we better be careful in transferring established concepts, as they unavoidably bring along presumptions, e.g. about the role of different actors (science as knowledge generator, etc.)?

- How can we study the various effects of social innovation (e.g. those perceived as positive and those perceived as negative)?

- How can we broaden the concept of the innovation lifecycle? What would be essential variables for capturing the complex dynamics of innovation?

- What are the similarities and differences in the role and structure of networks in the different fields of social innovation? What role do they play in the process of diffusion and dissemination of social innovation?

- Which are the main actors of social innovations and which roles can be assigned to different actors types?

- Which specific role does sciences in general and social sciences in particular play in social innovation?

- Is the transfer of knowledge a key component of the diffusion of social innovations?

- What is the necessary infrastructure (hard and soft) to support social innovation? What role do institutional frameworks play?

- What are context determinants of social innovations? How do they impact on, and are influenced by, social innovations?

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8 SOCIAL INNOVATION RELATED TO INNOVATION IN MANAGEMENT STUDIES

Steven Dhondt (TNO), Peter Oeij (TNO)

8.1 INTRODUCTION

This chapter sheds a light on what society and social innovation can learn from current innovation in the realm of management, business and organisation. We look at the long term trend to open innovation in relation to theory and practice of present innovation models and management and organisational development practices. The contribution closes by addressing the issue how policy can take up the new challenges emerging in the field, learning from this thinking and practice.

The central question in this chapter is what social innovation can learn from innovation in management, business and organisation?

SI-DRIVE[38] defines social innovation as *"a new combination or figuration of practices in areas of social action, prompted by certain actors or constellations of actors with the goal of better coping with needs and problems than is possible by use of existing practices. An innovation is therefore social to the extent that it varies social action, and is socially accepted and diffused in society (be it throughout society, larger parts, or only in certain societal sub-areas affected). Depending on circumstances of social change, interests, policies and power, social ideas as well as successfully implemented social innovation may be transformed and ultimately institutionalised as regular social practice or made routine. Following the end of such a life cycle, when the innovation becomes standard, new demands for change may occur and possibly call for further social innovations"*.

Social innovations, are accepted and diffused practices of social action targeted at social needs and problems, eventually to become internalised, socialised and institutionalised, probably leading to new social needs and problems and innovative practices. Social innovation can be separated from technological innovation in the sense that social innovation is concerned about *"social practices with social ends and social means"* (Franz, Hochgerner, & Howaldt, 2012).

Although it is not entirely clear how technological innovation emerges out of the tension between technical inventions (technological push) and what consumers and producers demand (market pull), social innovation seems partly to be driven by a paradigm shift, caused by the obsoleteness of technological and economic innovations to solve huge societal challenges related to the natural environment, demography, the globalising economy, and geographical human conflicts. There is an increasing importance of social innovation as compared to technological innovation, because better deploying social resources to solve societal challenges are a condition sine qua non (Howaldt & Schwarz, 2010; Howaldt & Kopp, 2012).

Social innovation also differs from innovation in management[39]. Social innovation is understood to be distinct from innovation in management. Namely in the sense that social innovation stresses the solution of social and societal issues while innovation related to management is, simply put, limited to the domain of organisation, work and business. The Community Innovation Survey (CIS[40]) approach of innovation for instance, stresses new products, services, marketing methods and organisational processes. Where social innovation addresses fulfilling social needs and meeting public demands and public value (and social value) in a social way, innovation related to management is stronger linked with profitability, market demands and commercialisation (Phills, Deiglmeier, & Miller, 2008; Pol & Ville, 2009). Despite differences between market and non-market environments, society can learn from management and business, when it comes to innovation, from its thinking and its practices.

But innovation in management is not exclusively limited to organisation, work and business, as it can also be understood as a social innovation in itself. For example Brooks (1982) classifies social inventions and innovations as market, managerial, political, or institutional. He states that when distinguishing between *"pure social inventions and innovations, sociotechnical system innovations, and pure technical innovations (…) there are no*

[38] SI-DRIVE Project Proposal 'Annex 1 Part B' (2013).
[39] When we discuss 'innovation in management' in this chapter, we mostly mean to include, for the sake of readability, innovation in management, organisation and business.
[40] http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/cis; (OECD, EUROSTAT, 2005, so-called 'Oslo Manual')

entirely pure types" (Brooks cited in Vedin, 2007). In other words, there are no strict boundaries between these different forms of innovation. Besides, there are many examples of entrepreneurs like Henry Ford and Frits Philips who regard themselves as improvers of the social conditions of workers. So, social innovation was their second trademark in a very clear way (Brooks, 1982).

Having stressed the differences between the types of innovation, there are also connections. It can be stated that social innovation exceeds fulfilling social needs, as, in aiming at social change, it also affects new business models (Zahra, Gedajlovic, Neubaum, & Shulman, 2009). Both society and management are confronted with and creating significant changes to technology, demography, climate and the natural environment, the information revolution and globalisation of economies. Learning from what is happening in organisations and companies is therefore crucial.

The world of innovation in management, business and organisation has gradually been moving towards open innovation. Consequently it has become 1) ever more dependent on knowledge which is an intangible capacity of persons, and not a tangible commodity, 2) in a market environment that requires flexibility and made-to-measure products and services no longer allowing standardisation and mass production to be the dominant mode of production. As is the case with social innovation, where economic and technological innovation from companies no longer can solely resolve societal issues (Howaldt & Schwarz, 2010), so it is in organisations where technological and IT-innovations, and product and service innovation alone, cannot easily be valorised (commercialised) without the necessary enabling role of socio-organisational or workplace innovations. Workplace innovations, for instance, stress the role of people as managers, employees, suppliers, customers and citizens to make innovation 'happen'. Studies in workplace innovation point out to social dialogue, participative decision making, autonomy and decision latitude, job quality, bottom up and employee driven initiatives, and empowered employment relationships as important leverage factors for innovative organisations (Ramstad, 2009; Pot, Dhondt, & Oeij, 2012; Totterdill, Cressey, & Exton, 2012).

Social innovation changes as well. Public bodies, especially in Europe, are confronted with formidable budget cuts, but citizens demand high quality public goods just the same. Therefore, public bodies become more receptive for open innovation and co-creation with social entrepreneurs, private businesses and citizens. Social innovation offers new potentials for producing public goods without (much) public administration and for making socially valued goods and services, without being dependent on 'vulgar' capitalism (investment capitalism) only. In this regard one could point to the initiatives from business with the intention to contribute to social goals. Sustainable production, green technologies and corporate social responsibility are examples of these. Relevant in relation to social innovation seems to be 'creating shared value' (CSV) as a new business concept first introduced by Porter and Kramer (2006, 2011). This business concept is applied by companies that have developed deep links between their business strategies and corporate social responsibility (CSR). The main idea behind creating shared value is that the competitiveness of a company and the health of the communities around it are mutually dependent. Critics, however, argue that *"Porter and Kramer basically tell the old story of economic rationality as the one and only tool of smart management, with faith in innovation and growth, and they celebrate a capitalism that now needs to adjust a little bit"* (due to the economic crisis and the partly collapse of investment capitalism). They see little chance that an increasingly critical civil society will buy into such a story (Beschorner, 2013).

8.2 FROM CLOSED TO OPEN INNOVATION

Today, when thinking about what is new in innovation within companies, open innovation in business is what springs to mind (Chesbrough 2003; Chesbrough, Vanhaverbeke, & West, 2006; Chesbrough forthcoming 2014). This concept of 'proudly found elsewhere' is so radically different from the traditional innovation model used by companies[41]. Over the past 200 years, the closed innovation model was the dominant model. With closed innovation, we mean that companies took care themselves of all of their innovations, product or process innovation. Companies tried to be secretive and protective of these investments (claiming intellectual property) and relied solely on their own staff for this core process. This shift from closed to open innovation has not been an easy one. To understand the transformation, we need to first clarify the traditional model of innovation, mainly known as the Fordist model of innovation. This Fordist model has been under threat for more than 40 years now, but the alternative of flexible specialisation only partially succeeded in overcoming the internal contradictions of Fordism. Open innovation can be seen as the last step until today in the

[41] Although many contend it is not new at all. See the response to this kind of criticism by Chesbrough & Bogers (2014).

development of how innovation is taken care of by companies[42]. We discuss these three major innovation models of Fordism, flexible specialisation and open innovation respectively.

Brynjolfsson and McAfee (2014) see the rise of Fordism as one of the major transformations in the human history, if not the most important one. Only by the productivity jump this organisational model accomplished, was it possible to generate sufficient growth to help spur the demographic and societal changes we have experienced over the past 100 years. Building on the First (around 1830) and especially the Second Industrial Revolution (around 1875), Fordism was the new organisational model of specialisation, standardisation and hierarchisation of production that made it possible to exploit the possibilities of electrification of production since the beginning of the twentieth century. This combination of technology and organisation generated the greatest productivity rise in human history. For innovation, companies could rely on their own strengths to develop new products and processes. Managers became professionals, companies learned quickly how they could capture new markets and generate new demand for their products. The enormous growth of companies strengthened them in their belief that they could tackle any kind of market demand they were confronted with. Companies experienced economies of scale and unexpected growth during decades. It was the heyday of capitalist mass production.

It is only in the 1970s, a slowing down of these growth figures started to appear. The causes of this productivity slowdown have been thoroughly researched and explained (Brynjolfsson & McAfee, 2014). The main issue was to find ways out of this pro-longed slump. A successful solution was to develop more flexible approaches to markets (Piore & Sabel, 1984). Companies tried to specialise in products or markets to better service their customers. They could profit from the new developments in computer technology and software. Flexible production technology became an affordable means for companies. The downsizing of companies, the introduction of new technologies and new methods to motivate and engage personnel were insufficient to help generate sufficient new growth for economies. In the past 20 to 30 years, several (Western) countries have experienced mass unemployment and insufficient growth rates. The flexible specialisation innovation model was a significant step towards open innovation because it implied a shift from technology pull to market demand driven innovation. The flexible specialisation model for companies did not really shift during these years; it remained rather firm in place. Developments were characterised by ongoing flexibilisation of production and labour, highly heterogeneous customer demands and shortened life cycles of goods, and radical technological innovation in computer capacity, ICT and the digital application of information and knowledge. Companies tried to generate new ideas and new products by spending more on their R&D-departments[43]. 'new economic growth' theory (Romer, 1990) offered remedy for more economic growth to combat rising unemployment through increased research and development (Beesley, 2003). New connections were sought to knowledge centres and even to public funding. In this period (since the nineties), the interest for triple helix-models for development of (societal) innovation became popular: industry, knowledge centres and government could work together to generate (national) competitive advantage (Leydesdorff & Etzkowitz, 1998). According to Brynjolfsson and McAfee (2014), these measures could not give companies a new innovation and growth boost. Their explanation is that the organisational models deployed are still those of Fordism. These methods cannot fully use the capabilities the new ICT-revolution brings to companies.

In the past ten years of the twenty-first century, the new innovation buzzword has been open innovation (Chesbrough, 2003; Chesbrough et al., 2006; Chesbrough et al., forthcoming 2014). Companies such as Philips have opened their R&D campuses to other companies and even competitors[44]. Dutch lithographymachine–producer ASML developed joint investment programmes together with customers such as Intel because the amount of capital involved is beyond its capability to acquire. Companies realise that they are not capable to manage the whole innovation chain to develop changes for their customers. Companies not only specialise in their production (or service), they also specialise in their R&D-approach. The idea is that sharing the research effort for new products and markets, can help speed up the innovation process, reduce the costs for innovating and bring in more creativity than companies could generate themselves. Brynjolfsson and McAfee (2014) predict that innovation will find a new way forward. The digitalisation of any kind of information and the new

[42] Another way of looking at these developments is using Rothwell's (1992) five generations of innovation models, namely technology push, need pull, coupling with feedback loops, integrated R&D-prototyping-manufacturing model and systems integrating or networking model strategically linking firms, also referred to as 1st generation (black box model), 2nd generation (linear model), 3rd generation (interactive model), 4th generation (systems model), and 5th generation (evolutionary model). A latest 6th model that was added is 'innovative milieux', which are regional clusters of innovation and high technology (Marinova & Phillimore, 2003).

[43] For the US, in the period of 1981 to 2012, the spending by businesses on R&D has risen from 1,6% of GDP to 1,9% of GDP. For the EU-15, this has risen from 1% to 1,4% of GDP. (OECD Science, Technology and R&D Statistics 1981-2012).

[44] Philips launched the Philips High Tech Campus in 1998. The Campus is now home to some 90 companies (http://www.hightechcampus.com/). It generates about 50% of the yearly amount of patents in The Netherlands.

computer technologies will help companies to generate much more combinations of products and processes as ever before. Also in the production and service processes, workplace innovation helps to link the wisdom of the crowd to the innovation process. We may expect many new things. Not only has the R&D-process been opened to the exterior, also the innovation process is now linked to all employees. The number of sources for innovation have been greatly expanded.

The main lessons from this trend toward open innovation seem to be:

1) Cooperation in innovation is a necessary condition to survive, as innovation has become extremely expensive;

2) Cooperation pools talents and knowledge creating opportunities for creativity and innovation;

3) Innovation becomes more dependent on the willingness and motivation of knowledge carriers of a varied kind, such as employees, customers, and individual innovators external to the company;

Innovation may have a large variety of topics (technical and non-technical inventions) but in essence it has become a social process because of its multiplayer character.

In relation to social innovation this could mean a development towards more open social innovation. The thought behind this is that people all over the world not only participate in innovation of enterprises and business, but also when it concerns social issues and public value. Individuals, citizens, innovators may wish to get a stronger say in the coming about of social innovation.

8.3 NEW ORGANISATIONS AND WAYS OF INNOVATING: THEORIES ON MANAGEMENT

In the previous section, the shift from closed to open innovation showed mainly an interest in innovation as product innovation. An important driver for any kind of innovation in products is how companies themselves change in terms of 'new forms of organising' or 'organisational innovation' (Lam, 2004). In the following two sections, we will be looking at these changes in theoretical thinking and organisational practices. The question is how much space theorists give to company management to improve organisations in all respects. Theories on how management can innovate organisation and processes have proliferated quite fast, in all research disciplines. We look at three dominant views on management and innovation namely organisational design thinking, dynamic capability management, and absorptive capacity management. The first topic has always had news value, because redesigning organisations coincides with the restructuring of economies and industrial sectors. The two other topics gained importance because organisations need to be versatile in volatile environments, they simply must be dynamic; and they cannot innovate by themselves and it all on their own, they must incorporate knowledge developed elsewhere, especially their organisational members must be good at it.

8.3.1 Management as designers

The fact that management has a leading role in directing the fortunes of companies by changing the organisation is not the dominant idea in all disciplines. Neo-classical economics sees organisation as unimportant: companies adapt (nearly) immediately to their environments. Organisations adapt to their environment. Also, since external demands are the same to all companies, companies need to select the same model to survive. If they do not, their inefficiency will force them to leave markets. Capabilities of companies are directly impacted by the economic environment. Organisational economics has challenged this way to look at organisations (Bloom & Van Reenen, 2010; Foss & Klein, 2012). Bloom and Van Reenen (2010) classify such theories under the heading of 'design theories'[45]. Design theories require management to quickly redesign their organisation to the requirements of the markets. The environment directly selects 'optimal organisational forms'. This is much in line with the contingency approach that posits that the relationship between performance and HRM is conditional upon the different modalities taken by another variable, viewed as contingent (Sheehan, 2013). Modern sociotechnical thinking (De Sitter, Hertog, & Dankbaar, 1997) may be seen as such a design theory: each new economic environment requires companies to change their structures accordingly ('law of requisite variety'). Kumpe and Bolwijn (1986) and Bolwijn and Kumpe (1990) see four

[45] When we talk about design theory we mean organisational design theory (in the vein of Galbraith, 2010) and not social design theory, which is often used in the context of social innovation literatures (Brown & Wyatt, 2010).

types of environment that require companies to finding the right fitting organisational form. In the following table, we show which environment requires which organisation structure.

Period	Market requirements	Performance criteria	Ideal type of firm
1960s	Price	Efficiency	The efficient firm
1970	Price, quality	Efficiency + quality	The quality firm
1980s	Price, quality, product line	Efficiency + quality + flexibility	The flexible firm
1990s	Price, quality, product line, uniqueness	Efficiency + quality + flexibility + innovative ability	The innovative firm modern sociotechnology
2000s	Price, quality, product line, uniqueness, idiosyncrasy in use	Efficiency + quality + flexibility + innovative ability + complexity and duality	Ambidextrous organising

Table 10: Evolution process of large firms in the period 1960-2000 (ibid.)

We added a fifth development in the ideal type of firms, namely ambidextrous organising. The essential element of ambidextrous organisations is being able to bring synergy to opposing, dualistic situations, that can be quite complex (Tushman & O'Reilly, 1996, 1997; Sutherland & Smith, 2011). An often used example is being short term efficient and long term innovative simultaneously (Katz, 2003). Market requirements are that consumers can use a product or service in an extremely personal way (idiosyncratic), as is possible with today's ICT and social media related gadgets.

8.3.2 Management technology and dynamic capabilities

The interest in modern sociotechnology (MST) somewhat faded in the 2000s with the sharp rise in interest in Lean Production (Arlbjørn & Freytag, 2013). Currently, MST is regaining in interest mainly because of the limited usefulness of lean production in service types of settings (despite its unlimited use to 'rationalise' work processes) and the rising importance of innovation as a performance criterion. Lean remains too much a toolbox of organisational instruments (Kanban) and has not become a consistent organisational theory. Bloom and Van Reenen (2010) posit that management has more possibilities to change organisations than the choice for one model related to one economic environment. Superior organisational approaches only over time show their capabilities. There is room for manoeuvering. Foss and Klein (2012) talk about 'entrepreneurial judgment'. They see this as the basis for a new (entrepreneurial) theory of the firm.

This shift in economic thinking might seem strange for organisational sociologists. Organisational sociologists have always investigated the rise and fall of new organisational concepts and approaches (Kern & Schumann, 1986; Schumann, 1995). That companies may use quite different organisational concepts and still remain successful is a quite acceptable result of many studies (Schumann, 1995). Management needs to make use of organisational capabilities as dynamic capabilities to improve the company performance (Teece & Pisano, 1994). These dynamic capabilities may be very different from one company to another. Companies need to develop their dynamic capabilities so as to be more flexible with the numerous demands they need to cope with (Teece, Pisano, & Shuen, 1997). Teece et al. (1997) define 'dynamic capability' as *"the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments"*. Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece and Winter (2007) say to this that 'dynamic capabilities' not so much deal with 'operational capabilities', but with *"the capacity of an organization to purposefully create, extend, or modify its resource base. The 'resource base' includes the 'tangible, intangible, and human assets (or resources) as well as capabilities which the organization owns, controls, or has access to on a preferential basis"* (p. 4). 'Dynamic capabilities' therefore enhance the innovative capabilities and competitive advantage of organisations.

In 1995, MacDuffie insisted on the importance of human resource bundles, as a systematic approach to the development of human resources, to improve profitability (+), innovation (+) and labour turnover (-) in companies. Sheehan conceptualises these dynamic capabilities as HR-bundles of practice: recruitment and selection, performance appraisal, performance-based pay, training and development, employee voice,

participation, information sharing and 'strategic people management'. She argued that relatively well-developed bundles of practice are effective in SMEs and especially in improving their profitability and rates of innovation (Sheehan, 2013).

In this human resources-performance literature, the distinction is made between traditional practices and 'high performance/commitment practices' (Guest & Conway, 2011; Sheehan, 2013). Such practices may live next to one another. Sheehan (2013) also points out that there is a whole spectrum of HR-bundles possible that companies may choose between. Her results show that performance improves with a more integrated approach to HR-measures.

A separate line within this tradition is that knowledge of employees is needed to make 'high reliability organisation' (Weick & Sutcliffe, 2007) or 'project based organisations' (Hobday, 2000; Peters, 2011) function properly. Elementary notions in this respect are that successful functioning of organisations has become more dependent on competencies, talents and motivations, than on how processes are organised. HROs for example are able to perform resilient and effective by promoting a sense of urgency among employees to prevent making mistakes. They train people to be resilient in restoring the process from mishaps. 'Project based organisations' on the other hand, largely organise processes around knowledge of project team members in order to be able to address the combination of market demands by a combinations of skills (variety is met by variety).

In the Nordic European countries, this idea to build on the support from employees to develop the company, has been even developed into a model in which employees are the main drivers for innovation. Employee driven innovation (EDI), building on the large tradition of participative democracy in Scandinavia, sees employees as having unique, accessible and generally free knowledge of production processes, client's wishes, and a drive to be creative and innovative in daily work (Høyrup, Hasse, Banafous-Bocher, Møller, & Lotz, 2012).

8.3.3 Knowledge economy and absorptive capacity

The changing economic environment is strengthening this opinion of malleability of organisations. Certainly in the current competition, organisations are competing on the most malleable of resources, the knowledge of their co-workers. Companies need to use more skill to cope with the technical changes. Two hypotheses give different interpretation of the use of higher skill levels in companies. According to Elsby, Hobijn and Sahin (2013): *"The first is skill-biased technical change, the notion that technical progress particularly augments the productivity of high-skilled workers relative to the low skilled, yielding rising wage inequality (…). The second, capital-skill complementarity, explores the possibility that the elasticity of substitution between capital and skilled labor is less than that between capital and unskilled labor".* Both predict more use of higher skill levels. Gallie (2013) finds that the economic crisis of 2008 and 2010 has led to a further selection of companies based on skill composition. Companies with on average higher skill levels seemed much more resilient during the crisis than companies employing more employees with lower skill levels.

The ideas on the use of knowledge as a resource have shifted over time too. The changing use of knowledge has led to new ideas how organisations should change themselves. Currently, developing the skill levels of companies is seen as needed to improve the absorptive capacity of companies (Cohen & Levinthal, 1990; Zahra & George, 2002). This is a change in approach with that of the beginning of the 2000s. In that period, knowledge and skills seemed to be much more 'manageable' to the needs of the companies (Nonaka & Takeuchi, 1995).

The open innovation approach to innovation also expands the thinking about internal resources of companies for innovation. Open innovation supports the use of different co-creation methods to engage suppliers, but also customer groups to bring in their knowledge and competences (Dhondt, van der Torre, van der Berg, & Wiezer, 2013). For example, the use of open source in software development is now seen as an important means to shorten time to market. There has always been concern in such open source software for quality of the code and the security liability. But companies have learnt to work with open source software and control these issues. Open source appears also to be the prime method to attract and keep talented software developers (Asay, 2014). *"It's no longer about cheap, commodity software. According to new research, it's about driving innovation through participation."* Brynjolfsson and McAfee (2014) see open innovation leading to more pressure for transparency from companies. Companies need not only to develop their internal strategies (HR-bundles) but also their external strategies to use hard-to-control resources to develop their innovation (Dhondt et al., 2013).

The growing number of resources and measures to be controlled by management has risen considerably. Complexity thinkers pointed out that managing the risen intricacy is very difficult and unpredictable, despite the overabundance of management tools and approaches to help managers cope with these (Stacey, 2012).

The theory how people in organisations should cope with complexity and duality differs from practice. In theory innovators and investors know that innovations are complex, but in practice they are inclined to cling to the belief that such innovation processes can be controlled. There is a dominant model among managers how to manage and lead innovation, namely the 'strategic choice model' (Stacey, 2010); there is a dominant model how people deal with complex situations, namely the rationalist 'model 1 theory-in-use' (Argyris, 2010); and there is a dominant human information processing model that tend to reduce the human psychological effort to solve difficult issues, namely 'fast thinking' (Kahneman, 2011). What these dominant behavioural models have in common is that they function perfectly in simple and routine situations but that they fail in complex and non-routine situations, such as to deviate from the norm in the case one has to be innovative and creative.

Although practitioners, researchers, academics, policy makers and consultants provide the experience and the evidence and the advice to take complexity and variety into account in the way innovation processes are organised and how people work within these contexts, people in organisations have great trouble to actually bring that into practice (Argyris, 1980; Stacey, 2012). A way to get a grip on complexity is to at least enlarge the absorptive capacity of organisations and being able to deal with ambidexterity and thus explore open innovation more fully (Lichtenthaler, 2009; Lichtenthaler & Lichtenthaler, 2009)[46].

These three developments show that what stimulates innovation mostly, is still heavily debated in the theoretical field. Many of the elements of these theories are useful for our discussion on social change and social innovation. We will come back to this discussion in our conclusion. For now, we want to see how this theoretical thinking has influenced practice. We do this in the next section.

8.4 RISK MANAGEMENT

In this section, we zoom in on the new practice of open innovation and on the analysis of the core elements in innovation management. We start with some practical examples of open innovation. Then we move on to explore if and how innovations are manageable. Two models, based on practice, are discussed that give insight in the fact that one can manage an innovation process, but not so much the eventual outcome of that process. We continue to investigate what successful innovators actually do to keep an innovation process on track. The good news is that there seems to be a limited number of leverage factors; a more worrisome finding is that each successful innovation demands a unique mix of those factors, which cannot be planned beforehand. However, some guidance can be presented about what kind or organisation is needed, namely 'professional bureaucracies' that have temporary structures, and works team-based or project-based. We end this section by mentioning some consequences for social innovation.

8.4.1 Open innovation

The previous sections illustrated a shift from closed to open innovation and new ways of managing. Key elements of these new ways of managing are redesigning organisational structures to quickly adapt to changing environments, enhancing the organisation's and their people's dynamic capabilities that enable quick responsiveness, and developing knowledge as the most important resource for renewal and change.

Open innovation is taking place all over the world. Drawing on a database collected from 605 innovative SMEs in the Netherlands, van de Vrande, de Jong, Vanhverbeke and de Rochemont (2009) investigated the incidence of open innovation. They found that SMEs engage in many open innovation practices and have increasingly adopted such practices during the past seven years. No major differences between manufacturing and service industries were observed, but medium-sized firms are on average more heavily involved in open innovation than their smaller counterparts. SMEs pursue open innovation primarily for market-related motives such as meeting customer demands, or keeping up with competitors. Their most important challenges relate to organisational and cultural issues as a consequence of dealing with increased external contacts. A few years earlier, Van der Meer (2007) had found evidence that there is a difference in collaboration between innovative larger companies and innovative SMEs in the Netherlands. Innovative larger companies have a tendency to

[46] Ralph Stacey (2010, 2012; Mowles, 2011) is one of the major complexity thinkers in management. In the past couple of years, Stacey stresses the fact that organisations develop themselves rather through processes than structures, which are highly politically driven but not controllable. He now is advocate of a configurational approach, named a complex responsive processes approach.

display closed behaviour when things really start to matter, while innovative SMEs are more naturally suited to engage in open innovation. Van der Meer (2007) contends that open innovation does need a deep involvement to really pay off, and in this respect Dutch companies find it hard to find a good fit, he says. The value added by the open innovation paradigm is not only about innovation, but certainly also in thinking of (new) business models, which is a real challenge for (not only) Dutch companies.

In the text box below we give a few examples of open innovation from the Netherlands (van der Meer, 2007; Jacobs & Snijders, 2008).

FrieslandCampina (milk and dairy industry) - Reducing waste and energy consumption in cheese packaging[47]. Cheese packaging is often made from a laminated polymer film. The packaging is sealed with a second laminated film to create a resealable package. In looking for ways to reduce waste and energy consumption, FrieslandCampina partnered with the leading PET manufacturer OCTAL and specialty packaging manufacturer Südpack in Germany. Together they converted the Form-Fill-Seal packaging from a laminated APET/PE structure to a significantly lighter and 100% recyclable single layer DPET whilst retaining full pack performance. In addition DPET production requires 65% less electrical energy compared with common APET, thanks to OCTAL's innovative manufacturing process. This combined effort reduces packaging material as well as energy consumption and contributes to our sustainability targets.

Shell (oil and gas industry) - The demand for energy is expected to increase due to population growth and poverty decrease [48]. To cope, Shell must continue to advance renewables, develop new technologies and make fossil fuels cleaner and more efficient. With this in mind, Shell is driving open innovation and uses both external and internal ideas in a bid to innovate and improve. Shells Open Innovation toolkit has four key pillars: GameChanger, Shell Technology Ventures, and Shell TechWorks, plus the relationships Shell has had with universities for a long time. These pillars all complement Shell's internal R&D.

GameChanger works at the early stage of development, and welcomes ideas from across the globe, from individuals and startups aiming to produce a proof of concept.

GameChanger helped create Ezip (Expandable zonal inflow profilers). This swellable rubber expands multiple times when immersed in water. Inspired by a kids' bath toy, Ezip is used in oil wells to automatically seal off a reservoir when water is detected. Next on Shell's development spectrum is Shell Technology Ventures. This venture capital arm is an investor in GlassPoint, who uses solar power to heat water and make steam, which is injected into wells to heat viscous crude making it flow more easily. At the end of the development range is Shell TechWorks, which looks for technology that was developed in other industries, but addresses challenges similar to Shell's: automation, seismic acquisition, and the advanced use of sensors. Shell dreams of bringing the kinds of robots that operate in space to Earth. These would to work in off-shore applications, underground and in exploration roles.

Network innovation - The High Tech Automotive Campus (HTAC)[49] offers a one-stop-shop

for the Automotive cluster, with a concentration of world-class education, R&D, engineering, test-facilities and a great community building & open innovation in the Eindhoven area of the Netherlands. There is interplay between industry, education and government. HTAC's goal is to function as a(n) (inter) national magnet to attract first-class automotive companies, and the business they attract, to the Brainport Eindhoven Region. At HTAC, high-tech companies and engineering companies are accompanied by knowledge institutes. All of them are able to make use of the facilities, as there are several meeting rooms and test facilities present at the campus. The High Tech Automotive Campus has a clear strategic focus for all its activities and inhabitants on two technology domains in the Automotive cluster: future power train and smart mobility. The future power train is a focus on sustainability in R&D and the reduction of CO2 emissions. Smart Mobility is concerned with technology helping to both increase and make better use of road capacity. The High Tech Automotive Campus has its own foundation and is managed by its own management and board of directors. The foundation is set up in a triple helix structure, with three representatives from knowledge institutes, three from governmental institutions and three from the business sector.

[47] http://www.frieslandcampina.com/english/innovation/your-innovation-and-friesland-campina/open-innovation-examples.aspx
[48] http://www.wired.co.uk/promotions/shell-lets-go/innovation/the-idea-factory
[49] http://www.euris-programme.eu/docs/htac_eindhoven

In applying innovation in practice at least two sources external to the organisation are a necessary condition to get hold on: funding or venture capital and data or knowledge about demands and inventions. The next examples[50] of open innovation and crowdsurfing make this clear. *"The rapid exchange of data necessary to maintain competitive enterprise operations demands access to multiple, fluid sources of information. Crowdsourcing uses the input of individuals external to an organization to resolve strategic problems or complete tasks once assigned internally to an explicit corporate individual or department":*

Anheuser-Busch (AB)– The world's leading brewer, AB has made sizable inroads in crowdsourcing. While its Budweiser is easily America's best-selling beer, AB sought customer input to develop a brand more attuned to craft-beer tastes. Development of Black Crown, a golden amber lager, combined a competition between company-brewmasters with consumer suggestions and tastings; this project had more than 25,000 consumer-collaborators. In Brazil, where AB markets the leading brand, Skol, it has opened PopTent, a crowdsourced video-production company specializing in TV-commercials, utilizing a social network of 35,000 videographers from 120 nations. AB's site offers potential collaborators open innovation opportunities with the firm.

Nokia– Like most crowdsourcing ventures, Nokia's Ideasproject defines itself as a global community devoted to open innovation. It focuses on consumer-derived collaboration across 210 nations to improve the viability of Nokia products in all markets. The Ideasproject is valuable because it draws on the consumer-experiences of participant-innovators to generate new ideas about the kind of products they seek from Nokia. Crowdsourcing participants are enabled, becoming their own agents of product-design. Current crowdsourced innovations can be examined, and new ideas offered. Nokia shares revenues generated from crowdsourced ideas with Ideasproject participants.

Unilever– Despite its globally-recognised and respected research staff and facilities, Unilever understands the value of collaboration with innovative partners from outside the firm. It seeks external contributions from anyone with useful input into such diverse project challenges as storing renewable energy, fighting viruses, reducing the quantity of sodium in food, creating cleaning-products that pollute less, and changing consumer behaviour to encourage enhanced sustainability, among many other projects. The firm invites crowdsourced, open innovation submissions at its *"Challenges and Wants: Submit a technical solution to us via our Open Innovation"* portal[51].

Several studies indicate than putting innovation management to practice has changed since the shift of closed innovation to open innovation. Becoming a multiplayer game with external stakeholders dependent on each other, and not being able to centralise control, demanded a looser way of steering and accepting more uncertainty on the one hand. On the other hand, organisations must practice risk management and be very careful how to spend their precious resources. This is exactly what companies tend to do, balancing between freedom and control, between exploring and exploiting, between leading and managing, and between innovation and routine. It was Drucker (1985) who pointed out that combining innovation with entrepreneurship is the best way to go: *"the entrepreneur always searches for change, responds to it, and exploits it as an opportunity (...). Entrepreneurs innovate. Innovation is the specific instrument of entrepreneurship. It is the act that endows resources with a new capacity to create wealth. Innovation, indeed, creates a resource (...). There is no greater resource in an economy than 'purchasing power'. But purchasing power is the creation of the innovating entrepreneur."* (p. 25ff)[52]

The question whether innovations are manageable by risk management or not depends on how you look at it, contend Jacobs and Snijders (2008). If you look at from the viewpoint of high-tech, large investments, scientific discoveries and patents it may seem uncontrollable; but if you look at it from a broader perspective, and one is including small and non-technical innovations, then the process of innovation is controllable and manageable. Jacobs and Snijders studied 22 innovating organisations and learned that there are ten innovation routines being applied by them. Each organisation had his own unique combination of a certain number of routines. If they had on average seven out of the ten routines applied, they proofed to be rather successful in being able to remain innovative by being capable of 'repeated innovations'. The 22 companies all said that innovation largely is an unpredictable process, but the researchers found out that they all nonetheless go about innovation in a systemic manner.

[50] http://www.innocentive.com/blog/2013/10/18/5-examples-of-companies-innovating-with-crowdsourcing/
[51] www.Innocentive.com
[52] The topic of social entrepreneurship could be taken up here. This topic, however, is dealt with in combination with social innovation, by Davies in chapter 4.

The question arises what these 22 organisations do while managing their innovations. Before we give an answer to that question we look innovation management models of van de Ven et al. (1999) and Bessant and Tidd (2007). Van de Ven et al. executed a large research program on innovation and digested the general findings into a model based on the practice of these innovations. Bessant and Tidd reviewed the literature on innovation and entrepreneurship and developed a model based on that and on their own practice as researchers and consultants.

8.4.2 Two innovation management models

Innovation management deals with managing something than cannot be managed but at best facilitated. Despite the dominance of rational management models in organisational life (Mowles, 2011; Stacey, 2010, 2012), most people in organisations responsible for innovations accept it is an endeavour hardly to plan. Rational dominant management models contend that people can lead, manage, control and plan situations and events as if innovations are linear processes. Innovators in organisations know such processes are void with unforeseen events and often unpredictable outcomes. The literature on innovation, organisational change, project management and re-structuring is highly consensual: about 7 out of 10 efforts fail in the sense that their journey does not arrive at the desired spot (Beer & Nohria, 2000; Sauser, Reilly, & Shenhar, 2009; Mulder, 2012). Apparently, innovation processes are not easily predictable and successful.

Innovation studies made clear that innovation processes are non-linear, hard to predict, rich of emergent properties and serendipities and sometimes even wicked of chaotic. One very rich example is the study of innovation journeys (van de Ven et al., 1999) which are based on the Minnesota Innovation Research Program (van de Ven, Angle, & Poole, 1989). The 'innovation journey' understands innovations as a nonlinear cycle of divergent and convergent activities that may repeat over time and at different organisational levels if resources are obtained to renew the cycle. Although innovations are unique, there seem to be patterns of commonality pertaining to the initiation, development and implementation periods[53]. Preceding the initiation of an innovation there is a gestation period of seemingly coincidental events, 'shocks' from internal and external resources triggering concentration of efforts, and making of plans to obtain resources. After this stage setting launching period a developmental period sets in during which concentrated efforts are undertaken to transform the innovative idea into a concrete reality. Finally, an implementation or termination period is observed in which the innovation is adopted and institutionalised as an ongoing program, product, or business or it is terminated and abandoned (van de Ven et al., 1999; see figure 11).

[53] In the same vein - but not referring to van de Ven et al. - van der Meer (2007) distinguishes (1) the concept stage in which new ideas are found; the stage of 'invention' and free creativity; (2) the development stage in which ideas are transformed into projects; and (3) the business stage in which projects are turned into new business.

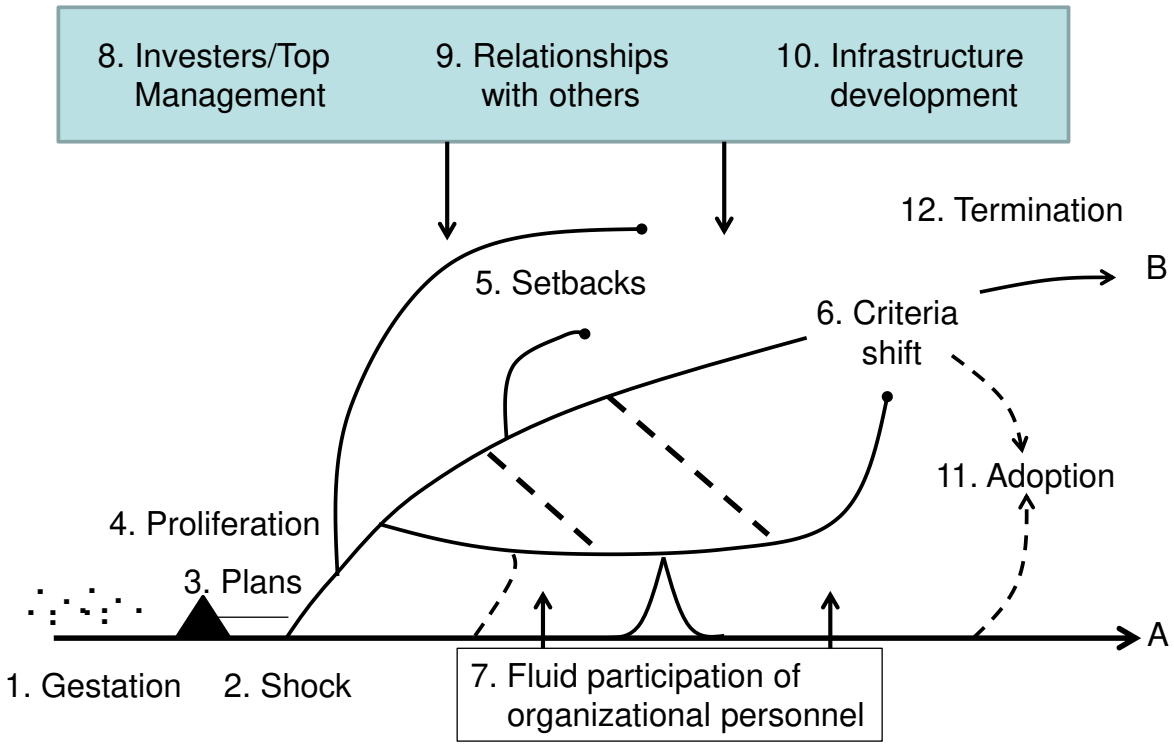

Figure 11: Key components of the innovation journey (van de Ven et al., 1999, p. 25)

The 'richest' period in terms of events and complex interactions is often the developmental period. Van de Ven et al. (1999) make clear that much is happening with ups and downs in an iterative way, without really being able to control what is happening. The initial innovative idea proliferates into numerous ideas and activities that follow different paths. There are frequent setbacks and mistakes because plans go awry or unanticipated environmental events alter ground assumptions of the innovation. Over time criteria for success and failure often change, resulting in power struggles between stakeholders, especially resource controllers and innovation managers (innovators) inside and outside the organisation. Innovation personnel participate in highly fluid ways. They are involved part-time or project-based, have high turnover rates, and experience changing human emotions (euphoria, frustration, closure). Investors and top managers have a strong influence in exerting checks and balances on one another and performing interventions. They take important decisions or solve problems. Finally, there is the involvement of third parties, like competitors, trade associations, government agencies and so on that either support or hinder the development and implementation of innovations.

Innovation therefore seems impossible to be managed easily, it can only be intended and facilitated. The complexity of interactions is growing by the day. The strong heterogeneity of customer demands has a diverging effect of innovation paths. Meeting customer demands has stimulated open innovation. Shorter product life cycles enhanced a continuous need for venture capital and pushed innovation to become a multiplayer endeavour. If one looks for instance at the practice of Apple's app store, one gets the impression that 'Everyone is involved'. But what do you do if you still need to manage an innovation, and have to deal with uncertainty (Böhle, 2011; Wolf, 2011)?

Bessant and Tidd (2007) understand innovation management as a process, an 'extended sequence of activities'.It is a process to generate, select and implement ideas that needs to be organised to make innovation happen. Three aspects flank this process, namely strategic leadership and entrepreneurship, innovative organising and network-based proactive relations (see figure 12).

Generate innovation possibilities by scanning and searching the environment to detect signals for innovation. Subsequently strategically select from these options those things which the organisation will commit resources to. Then follows the period when a chosen option needs to grow from an idea to a launch during which a host of problems have to be solved. This stage is comparable to van de Ven et al.'s development period pointed out

earlier. The essence of innovation management is how to manage the resources adequately (Bessant & Tidd, 2007). Resources are for instance means, people, tools, and knowledge.

From a leadership and entrepreneurship perspective innovation can be understood as risk taking with scarce resources that demand vision, courage and choosing directions. Innovation is about taking risks, but not gambling. Innovation is about sensibly dealing with uncertainty (Böhle, 211; Wolf, 2011; Foss & Klein, 2012). Resources are scarce and must be used wisely, namely based on solid business strategy. Entrepreneurship and courage may be needed to do new things and direct an organisation away from what everyone else is doing (Drucker, 1985). Schumpeter called this assembling new combinations.

Innovative organising is an 'enabler' for renewal, that is characterised by an organisational structure and culture in which creativity and knowledge sharing blossom. Innovative organising supports how an organisation meets the demands of environmental variety, by absorbing variety, and in so doing, building the dynamic capabilities that are needed.

An important recent development in this vein is the attention to workplace innovation. Workplace innovation, in essence, means renewal of both organisational structure (i.e. work organisation, job design) and process (i.e. organisational culture, organisational behaviour) through dialogue (i.e. participative decision making, voice) resulting in better performance, good quality of jobs, and the capability to remain innovative (Oeij et al., 2011; Pot 2011; Pot et al., 2012)[54].

Besides strategic leadership and entrepreneurship, and innovative organising, a third aspect is of importance, namely the network of proactive linkages of organisations (Bessant & Tidd, 2007). Such network linkages[55] give expression to innovation becoming a 'multiplayer game', because innovating takes place within contexts where people are successful in finding, developing and deploying connections and creative relations in a proactive manner. Innovation is not a solo act, that is why it is called 'open innovation' these days (Chesbrough & Bogers, forthcoming 2014). Network linkaging implies border crossing within and between organisations through proactively linking anyone who might play a significant role in the innovation process, be it suppliers, vendors, customers, investors, knowledge carriers etcetera.

Innovation management thus brings focus to the process of generating, selecting and implementing an idea, visualised by the innovation funnel – few ideas survive, most are discarded – and partly driven by the availability of the right market and technological knowledge.

[54] Workplace innovation as it developed in the Netherlands was in first instance called social innovation. Here and then, social innovation was contrasted to technological innovation in organisations. When Europe adopted the term social innovation, the Dutch label became confusing, as it was being used for both workplace innovation and social/societal innovation. Today a clearer distinction has been strived after by defining workplace innovation strictly as innovation in relation to work and organisation, whereas social innovation is being reserved for social and societal issues. At the same time a connection is being sought between both spheres, by stimulating national platforms and networks that bring together social policy and economic 'top-sector' policy and the involved agents from social organisations and NGOs, business, and knowledge organisations and universities. The Dutch Advisory Council for Science and Technology Policy, for example, recommends social innovation to become an explicit element of governmental public policy making, and becoming a part of the Dutch general innovation policy. It should help to solve social issues and to boost economic growth, by developing partnerships which include a stronger and active role for the government (AWT, 2014).

[55] If managing innovation can be understood as 'network based innovating', we suggest to describe this as organisational boundary-crossing and multi-disciplinary cooperation between practitioners – entrepreneurs, intrapreneurs, investors, business people, etc. - and knowledge developers – innovators, scientists, designers - with the intention to develop innovative solutions in an open and iterative manner to specific issues that are important to diverging stakeholders with unique knowledge being assembled and applied. OPIUM, constituted by the combination of open innovation, participatory innovation, iterative innovation, unique knowledge assembling and application, and multidisciplinary innovation (Oeij & Vaas, 2011).

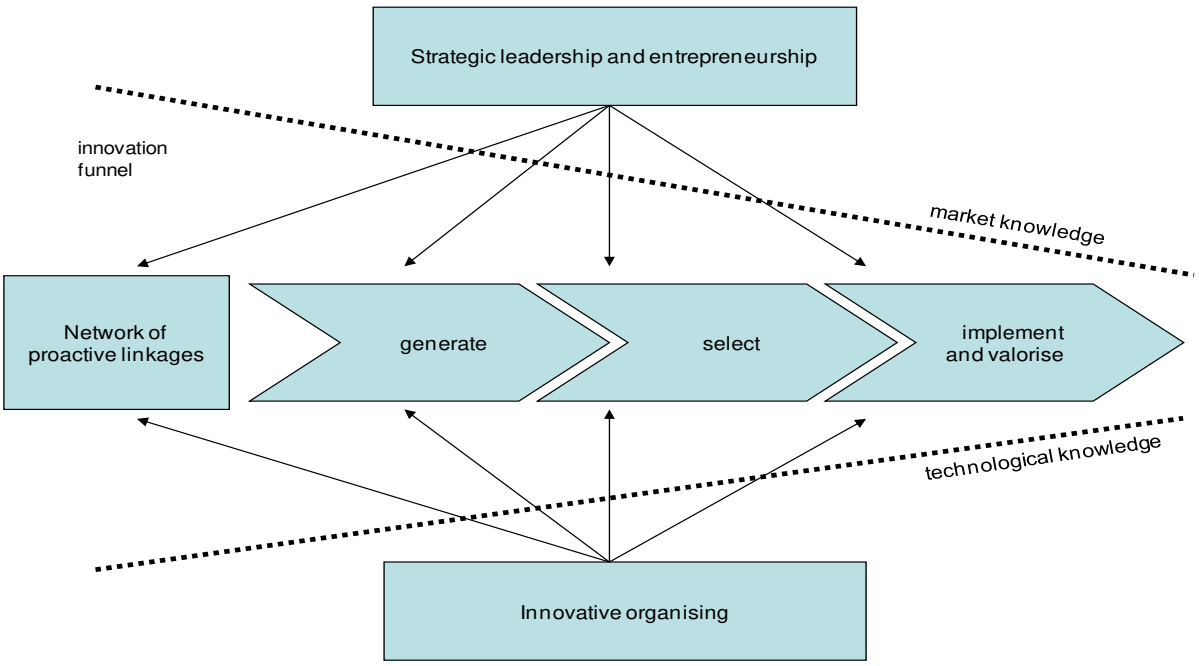

Figure 12: Innovation management (after Bessant & Tidd, 2007; Tidd & Bessant, 2013)

Although how people in organisations are managing innovation will differ, they nonetheless must take into account four observations (Ortt & Smits, 2006). First, the linear model no longer holds. Innovation is iterative and multi-causal. Second, and related to this, is the need to look at innovation from a systemic perspective. Many parts and actors are linked intricately in the innovation process. It makes no sense to single out parts and exclusively manage those parts while ignoring the interdependencies. Third, uncertainty is inherently and continuously present. Complete control over the process by planning and prediction is an illusion. Fourth, managing innovation is entrepreneurship, not just a task to be managed. It demands risk taking, reflection and learning and living on 'the edge of chaos'. A fifth point to add is the paradoxical nature of innovation processes and the mixed messages that emerge all of the time. A good example is van de Ven et al.'s (1999) description of the tension between investors and innovators: be creative but watch your wallet. Paradoxes ask not for choosing between seemingly incommensurable properties but demand trying to find the synergy between them. The complexity of innovation processes not only informs us on the interdependency of events, people and things, but they also tell us it leads to something that did not exist before. As Bessant and Tidd (2007) put it: *"Getting a good idea into widespread and successful use is hard enough - but growing and sustaining a business requires the ability to repeat the trick. (...) Success isn't about luck - although there is probably some truth to the old saying (...) 'the more I practice the luckier I get !' Innovation is about managing a structured and focused process, engaging and deploying creativity throughout but also balancing this with an appropriate degree of control"* (p. 438).

Jacobs and Snijders (2008) have observed that innovators say that innovations are unpredictable, yet they organise the innovation process in quite a systematic and thoughtful manner. As if they combine reason and intuition subconsciously in a sense-making way. Maybe that is hindsight logic, but let us look what these innovators actually do.

8.4.3 Making idiosyncratic combinations

Deviating from the two discussed innovation management models, Jacobs and Snijders (2008) pertain that an innovation process is build up around innovation routines of three kinds: 1) a strategic profile that provides directions for the creating and selection of ideas; 2) implementation competencies and design rules in organising innovation; and 3) a corporate culture of learning and innovating that serves as a feedback mechanism for continuous improvement and innovation.

The component of strategy (1) essentially refers to an organisation's position towards markets, environments and its own products or services. Unique selling point and core competencies are determining the space to manoeuvre.

Organising innovation (2) is for Jacobs and Snijders a crucial ingredient for being capable of repeated innovations. To analyse this issue the authors make use of Mintzberg's organisational structure typology limited to four basic organisation types (see figure 13):

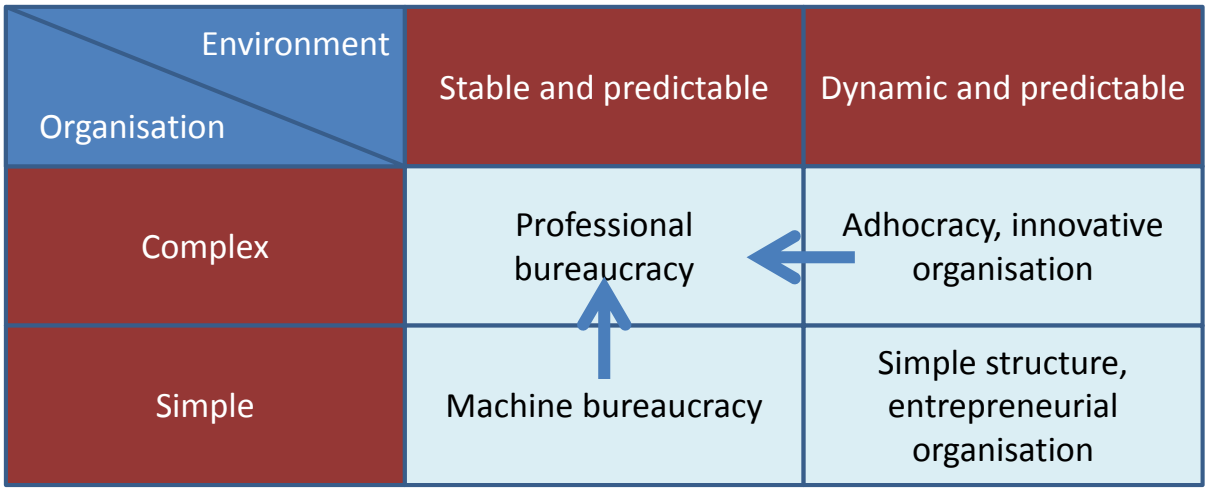

Figure 13: Development of structures in organisations with repeated innovation (adaptation by Jacobs & Snijders (2008, p. 65, p. 76) of Mintzberg's four main types of organisation)

According to Jacobs and Snijders (2008) organisations that wish to be innovative face the challenge to develop themselves into *"open professional bureaucracies that combine exploitation (routine) and exploration (innovation) in ambidextrous manners"* . An innovative organisation is flexible. Adhocracies are often either young and small organisations or larger organisations with a flexible structure and project-based teams, like in a matrix organisation. According to Mintzberg even such adhocracies have a tendency to bureaucratisation over time. If they are successful they will repeat certain activities and stabilise processes. At the same time they are repeating innovative routines, contend Jacobs and Snijders, they are standardizing innovative practices even if they are unaware of it. They become stable, yet remain innovative, and they are maybe more to be characterised by incremental than radical renewal.

The larger of such open professional bureaucratic organisations continue to make use of project-based teams of a special kind, namely 'temporary adhocracies' that are given a special task related to innovation or change. A used term for this is a 'skunkworks project', which is a project developed by a small and loosely structured group of people who research and develop a project primarily for the sake of radical innovation. Professional bureaucracies are more like networks, and are relatively open to the environment and capable of dealing with ambiguous, 'ambidextrous', demands. Yet, they have become more stable and better capable of repeated innovation, either in incremental renewal (building on success) or radical renewal (by temporary adhocracies).

Snijders and Jacobs (2008) posit that open professional bureaucracies combine an open and creative culture of learning and cooperation by those departments responsible for innovation, with an organisational structure based on reliable facts and figures, resulting in focus. Organisations like these are in a constant flux between exploitation and exploration, which demand from a management perspective that such organisations be organic instead of mechanistic, and from a perspective of how professionals should act to remain innovative instead of routinely. Managers select, connect, and control, while professionals create, develop, produce and sell. The organisational culture, thus, enables and demands taking different roles at different moments in the innovation process.

In their research Jacobs and Snijders observe that the companies under study, all successful in repeated innovation, are moving from adhocracies or from machine bureaucracies towards the open professional bureaucracy type (see figure 14). The movement from machine bureaucracies is made by larger organisations. Some of them have their own R&D department, others do not. The shift from adhocracies towards open, professional bureaucracies is made by organisations without an R&D department, not necessarily small organisations, but often working with small departments or teams.

About the third component, the organisational learning culture, the picture of activities is varied across the 22 companies according to Jacobs and Snijders. A common element, however, is that innovation is regularly at the

top of the agenda. Market developments and customer demands must be monitored closely. New ideas must be found and nurtured, inside and outside the organisation. The organisations combine multi-disciplinarity and diversity – getting the best people - coupled to boundary spanning – building bridges and managing the process - in forms of cooperation such as (project) teams, communities of practices and acquiring external knowledge, for instance through (internet) competitions. Leadership roles change during the process from people oriented to task oriented behaviour, as we saw earlier. But there is a continuous focus by leaders on creating commitment of professionals and external co-creators to realise a project's goal. The interaction with (potential) customers determines if an innovation is developed further, changed or eliminated. The organisations develop commitment and mobilise people by trying to seek a balance between guts, ambition and autonomy on the one hand, with learning from hard figures, customer feedback, and dealing with mishaps on the other hand (Jacobs & Snijders 2008).

In their innovation process these 22 companies are good in at least seven out of ten of the following innovation routines or disciplines (ibid.):

1. a clear connection between strategy, business model and innovation
2. understand societal trends and wishes of customers and act on it
3. learn from and listen to customers and find out their future demands
4. be ambitious and entrepreneurial
5. continuously develop incremental innovations further (next to possible radical innovations)
6. learn from critical performance indicators
7. get the best people committed
8. create an open ambiance conducive to both creativity and constructive criticism
9. build strong networks with partners, customers and knowledge carriers
10. keep focus on nice versus need to have and be committed when suffering misfortune

8.4.4 A note on diffusion of innovation

Innovation, especially technological innovation, has long been a matter of straightforward, rather linear, technology push and of market pull. These days, innovation is in the first place more seen as a cyclical process, involving various (non-technological) factors. In the second place, while inventions may be still quite local, or bounded in networks, the diffusion of innovations comes more and more to depend on strategic policies and governance, like innovation programmes. At both micro or macro level, for an innovation to be accepted and get disseminated and diffused, Rogers stated that knowledge absorption, a persuasive business case, the decision to move forward and implement the innovation, and finally, getting accepted or adopted are all necessary (Rogers, 2010). The pull may come from (competing and enterpreneurial) companies, while the push is delivered by (regional, national and European) governments and policy. Roger's managerial and organisational level model seems to fit well within simple hierarchical decision making structures, but it does not apply to organisations where decision making is complex. Such organisations consist of stakeholders and agents, in which each agent has some decision latitude or autonomy, for example in flat organisations, or in schools, networks, professional organisations, organisations with semi-autonomous business units and teams. Frank, Zhao and Borman (2004) give the example of a school organisation where members can exert social pressure on each other and can decide whether or not to support change and help others, or not. The agent's perception of the usefulness of an innovation affects its implementation, not only individually. Perceptions are constituted in the formation of interest by groups of agents as well, through interaction and opinion forming processes. Greenhalgh et al. (2004) studied the diffusion of innovations in service organisations and developed a model of possible determinants of diffusion, dissemination and implementation of innovations. The model is built up around nine components, and within each component there are a number of categories and subcategories. They all play a role in the mechanism for innovations to be adopted or not. For example, the innovation itself should have a number of advantages compared to the present situation, like improving the present situation, compatibility, low complexity, low risks, fitting with the nature of knowledge required. The organisation that is to adopt the innovation (system antecedents for innovation), should have certain structural characteristics (e.g. the right size, differentiation, decentralisation, slack resources), an absorptive capacity (e.g. pre-existing knowledge, ability to acquire and process knowledge, knowledge sharing through networks). And the implementation process should be designed such that receptiveness becomes likely. The model then combines structural elements, behavioural elements, and resources, and connects the resource system, the user system, the knowledge purveyors and the change agents, and the outer context with each other. The mechanism of diffusion and adoption varies across cases and is always a unique composition of these components' variables.

This Section discussed examples of open innovation. Three models of innovation were presented that are based on research and on practice. The developments sketched in these models are in line with the shift form closed to open innovation and from technology push to demand pull driven innovation. Organisations redesign their structure in accordance with flexible market demands, and they enhance their dynamic capabilities to be able to absorb knowledge from their environments, as we discussed in the previous chapters.

One could write a book on social change and social inventions in organisations. Besides open innovation there are several other developments which could be seen as social innovations within organisational life. Namely changes in ways of working, organising and producing. Many of these examples are linked up with disciplines such as HR, strategy, marketing, IT and so on. We lack space to deal with these extensively, but we would like to mention some of these 'debates' nonetheless:

- High performance work systems;
- Corporate social responsibility and sustainability;
- Self-management, self-organisation and organisational citizenship behaviour and distributed and complexity leadership;
- Shared value, shared awareness, and high reliability organising.

What these and other debates and developments have in common, is that they are inducing fundamental social changes within organisations, and in so doing are pushing and pulling social innovations and workplace innovations.

What do these practices mean for social innovation? Successful innovations are a mix of a limited number of leverage factors. It is not easy to predict which factors that may be. And it becomes even harder when a social innovation augments in complexity, e.g., in the case of a substantial number of differentiating stakeholders, or when open innovation is taking place with external participants that bring in very important (i.e. scarce) resources. Nonetheless, it is possible to more or less manage the process of innovation. Just be prepared that things will not go as you plan, and be resilient to change the course. Thinking of high reliability organising is very helpful in this regard. It helps to keep participants alert for weak signals that things are taking turn unexpectedly, and enable participants to deal with these unexpected turns in a resilient way. In organising and managing innovations it would be wise to learn from professional bureaucracies that in each stage different competencies are more essential than others, which has consequences for dynamics of roles, authority, and decision making power. In designing social innovations one could prepare participants of the fact that their position and contribution will shift during the process. In order to avoid not only disappointment and personal tragedy among participants, but to enhance the success rate of social innovation initiatives, this is a wise and (public) valuable lesson.

8.5 POLICY AND BUSINESS INNOVATION

In some of the previous sections, the focus was on how management could stimulate innovations. Democratisation[56] of the innovation process was one of the main trends we could observe. Workplace innovation may be seen as one of the examples of this democratisation of innovation within companies. How does public policy come into this picture? And has this relationship between public policy and the innovation process within companies changed over the years? How can we relate these development to the broader movement of social innovation?

The innovation actions by management described in the previous sections do not happen in a void. Governments and public policy try to influence such decisions. The starting point for our analysis in this section is the traditional instrumentation public policy uses to support the innovation processes within companies. These instruments are subsidies, taxes, science and industrial policy, and by creating a level playing field. These measures are separate from the measures that policy makers themselves may take to create innovations. We are not looking at those public service innovations. The use of such instruments depends deeply on the approach public policy thinks it may stimulate innovations.

[56] Foss and Klein (2012) would say "*become more disperse*".

In the last 20 to 30 years, several social issues seem to return as wicked problems; private companies do not seem to generate solutions to solve these issues. Public policy makers all over the developed world have developed several new approaches to support innovation management in companies to tackle these problems. The question is if public policy should develop other competences and resources to support companies overcome these wicked problems. We can see that in this respect, several approaches have been tried out by public policy. We will discuss the impact of new public management (NPM), the benefits of the triple helix approach to innovation, the regional innovation approach, and, finally, the rise of open innovation as also a new model for public policy to support management innovation. These models (and the thinking around these models) were developed over the past 30 years. The role of public policy shifted gradually from an 'outsourcing agent', to an 'innovation partner', to a more modest role in the innovation management process. Our main perspective is from the public policy side to the companies[57].

New Public Management (NPM)

Our starting point is the rise of NPM during the eighties and nineties of the last century. Traditionally, public policy shied away from innovation efforts of companies. The only kind of support was financial support for industrial research institutes or by trying to generate innovation itself (example: NASA). The change with the traditional approach of supporting innovation management, is that with NPM there was a belief that public policy could act best by copying all processes from private companies and inserting itself in the innovation processes of such companies (Osborne & Gaebler, 1992). Public policy could be done with a much smaller number of people: outsourcing, motivational and engagement techniques, entrepreneurial leadership could help a much smaller public administration operate in an effective way. The fact that public policy would be executed much in the same way as the management of large corporations, led to the opinion that public sector policy could help optimise innovation choices made in the private sector (Bourgon, 2011). According to the new public management theory, management is the key factor of the social development and the sustaining economic growth. The new public management theory emphasises on the political property of management, praises the management of liberalisation, advocates market-oriented management, and promotes entrepreneurial leaders (Li & Liu, 2010). New programming techniques, output steering, a major rationalization of goal formation etc. would help management in companies to develop the right investments.

At the same time of the implementation of NPM in a lot of public administrations, the concept of a triple-helix system for innovation management was developed. This concept was put forth in an attempt to better recognise and acknowledge the dynamics of this evolving knowledge-based economy (Leydesdorff & Etzkowitz, 1996). The interests of industry and government should merge with and alter the performance and organisation of university research, challenging the collegial role of research. In connection with this, Leydesdorff and Etzkowitz claim that a new organisational field, broader than the traditional organisational field, has emerged namely the knowledge-based economy, consisting of industry, government and research. This model describes how a new knowledge infrastructure is generated in terms of overlapping institutional spheres, with hybrid organisations emerging at the interfaces (Beesley, 2003).

[57] We focus on organisations, but we mention that at governance level attention shifted from institutional value to public value. See for example developments such as Public Value Management and Transformative Government.

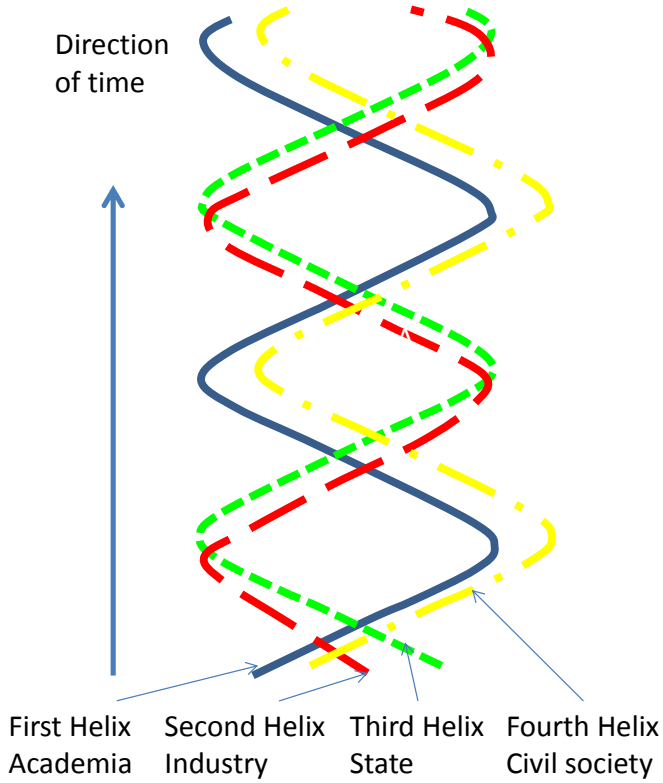

Figure 14: The conceptualisation of the "quadruple helix" innovation system (Carayannis & Campbell, 2011)

The helices in a triple-helix system show the overlay of communications, networks and hybrid organisations between industry, public policy and knowledge partners. A good policy will help to stimulate the further overlaying among the helices. *"The aggregated relationships within the triple helix spawns interactive offshoots of intentions, strategies and projects that, in turn, create added value by constantly reorganizing and synthesizing the institutional infrastructures in order to achieve at the least, outcomes adjacent to the goals (Etzkowitz/Leydesdorff 2000). (...) These interactive offshoots are further transformed through discussions and negotiations within the triple helix."* (Beesley, 2003).

This thinking has received quite some support during the 1990s among a lot of countries and regions, each of them hoping that some form of triple helix will help drive productivity and economic growth (Etzkowitz & Leydesdorff, 2000). The common aim amongst them is to achieve an innovative environment consisting of trilateral initiatives for knowledge-based economic development, and strategic alliances among industry, government and academic research groups to generate systemic innovation (Beesley, 2003).

The main result of this effort of developing the triple helix has been a more systemic interaction between macro-institutions like 'industry', 'knowledge systems' and 'government'. At the level of the separate institutions, a lot has been invested into creating academic entrepreneurship[58] and knowledge transfer systems (Cooke, 2005). Cooke criticises the approach for emphasising the consensus aspects of relations among such distinctive 'epistemic communities' and a somewhat 'cybernetic' view of innovation accordingly (ibid.).

The important thing here, is that the company learning and innovation processes depend strongly from the environment they are in. These environments do not necessarily need to be national. A variant of the triple helix approach is the approach of the regional innovation systems (RIS) (Cooke et al., 1997). *"RIS examine how various elements, actors and networks influence regional success in innovation. (...) The RIS is an open system, in*

[58] An example is the development of the Technical University in Twente (Netherlands). This university started some 25 years ago with the explicit goal to better use knowledge and develop new industries in this part of the Netherlands with more traditional industries such as textiles. From the university, some 700 companies have spawned. This may seem as a successful venture, but the region is striving for these 700 very small ventures to grow into large business. This is not yet seen as successful (personal communication Prof. Aard Groen, University of Twente (NL)).

constant interaction with its national, super-regional (e.g., EU, NAFTA) and international innovation nodes and networks. Cooke et al. (1997) suggested three key institutional forms—financial capacity, institutional learning, and productive culture—that facilitate systemic innovation at the regional level." (Chang et al., 2012) Cooke (2005) is somewhat critical of using the concept of RIS and proposes to start with regional knowledge capacity. Local knowledge spill overs can develop themselves into RIS. Public policy makers may want to help develop such local and regional knowledge creation. It depends on what they think they should be supporting. Cooke et al. (1997) list a whole set of factors such as culture of cooperation, institutional change, labour relationships, interface mechanisms in the scientific, technological, productive, and financial fields (Chang et al., 2012). Important is that management innovation and public support should coincide (Gerstlberger, 2004). Regionally identifiable innovation systems arise from competition and collaboration between public and private sectors; and appear to be consisted of producers and users of knowledge, of organisations and firms with clustering tendencies. Clusters as a concept are closely connected to RIS (Asheim & Isaksen, 2002). We will not develop this here any further (Filho, Santos, & Mirra, 2012).

Open innovation is the latest step in this development in this sense that companies, mainly multinational companies, seem to change their mode of work from 'Globalisation 1' built on multilateral trade institutions, to 'Globalisation 2' which is driven by the quest by multinationals for exploitable knowledge in 'knowledgeable regions' often quite dependent on public research funding resources. Regional innovation systems articulate these relations geographically (Chesbrough, 2003; Cooke, 2005).

Within this discussion about different positions of public policy towards the innovation process in companies, we can also see the changing position of the EU over the past years. Certainly from the period of the Lisbon Agenda, the EU wants to be more supportive of the innovation processes in general. The European Institute of Technology (EIT) and the Knowledge Innovation Communities (KICs) developed during the Seventh Framework Programme embodied the idea to create regional innovation centres for the whole of Europe. The Innovation Union is broadening up the picture towards all type of factors that may lead to more innovation and economic growth[59]. The EU is however not so much a direct actor in relationship to companies all over Europe. The connection is always through the national governments (for example the networks of Chambers of Commerce that are supported by the European Entreprise Network). In this approach, the attention for social innovation is somewhat special. The link with the previous approaches is however clear. The belief is that next to the triple helix, other types of helices are possible. Carayannis and Campbell (2010) see room for quintuple helices. Leydesdorf (2011) talks about n-type of helices. This means that the relationship between the helices of industry, knowledge centres, public policy makers and civil society should be possible.

The upscaling of social innovations should follow the connection with the other helices. What do we mean by this statement? Social innovation from a micro perspective is linked with bottom up initiatives of citizens, civil servants and local stakeholders. Upscaling and dissemination seldom occurs, because this demands 'imitation' and 'social contagion'[60] on a larger scale. At macro level we observe the take up of social innovation by public bodies like national and European governments. Two challenges come to the fore. First, the connection between micro and macro initiatives to upscale social innovations. Second, the connection between public, private and intermediate partners in the realm of social innovation (the helices) to speed up social innovation and make social change happen.

8.6 CONCLUSION AND DISCUSSION

Innovation in business, management and organisation causes change to society and is caused by change in society. Innovation co-produces society and society co-produces innovation interchangingly and at the same time. Social change however is broader than innovation, since social change does not necessarily involve newness or progress. How does management and business innovation influence social change, social innovation and society? One way of addressing this question is to study social and societal changes and trying to understand how innovation is connected with that. It can only be done in a sketch-like manner in this chapter, where we focus with rough, broad strokes the painting that is being pictured, building on our main results in the previous chapters.

If we look at how business innovation has changed societies, the following major trends can be identified:

[59] See for example website DG Enterprise & Industry of the European Commission.
[60] See chapter 2.

- The oil crises in the seventies of the 20th century were a marking point for the transition of mass production to flexible specialisation; it also meant a restructuring of economic sectors and a shift of types of industries across the globe (Piore & Sabel, 1984);

- A global division of labour and branch activities showed the rise of knowledge economies in the Western economies and the shift of industrial production to newly industrialising countries (Kern & Schumann, 1986);

- Within Western economies there was a significant shift from a decline of jobs in agriculture and industry toward a growth of jobs in services (Gershuny & Miles, 1983);

- The digital revolution enhanced the globalisation and reshaping of economies, the rise of new branches (ICT notably) and occupations, new business models, new functioning modes for financial markets and rapidly growing sources for massive investments (Brynjolfsson & Saunders, 2010);

- The miniaturisation of computer chips unleashed unforeseen potential for new products and services and caused new social movements and human behaviours related to new ICTs and social media, ranging from personal computers, to smart phones, to a whole new generation of virtual and digital platform where people interact; what will nanotechnology further bring us? (Moore's law; Moore, 1965; Meindl, 2003);

- Political shifts and upheavals, ranging from the formation of the European Union as a unified market and a socio-political entity, to the rapidly developing of Asian regions into economic superpowers (notably China) and the growing economic importance of Latin America, besides the shifting political landscape in Russia, the Middle-East and North-Africa, have spurred economic growth on a global scale;

- Innovation itself moved from 'closed' innovation inside firms to 'open' innovation between organisations and with the cooperation of a large variety of stakeholders; the life cycle of products has shortened, which resulted in a continuous and growing hunger for investment and venture capital that further speeded up competition and innovation. The openness of innovation has made the innovation process more complex as there are so many stakeholders of different kinds, like co-creating and co-producing investors, innovators, customers, service providers and producers. Openness, however, has not made the innovation process more transparent and may have made innovation processes more impersonal. Stakeholders, for instance, are not necessarily in direct interaction with each other, as is made clear by the case of the dominance of shareholder or investment capitalism over managerial, relationship capitalism (Stacey, 2010; 2012). Despite its interdependency, open innovation as multiplayer game in terms of human bonding is fluid, loose and individualistic. Openness is represented by knowledge flows ('spill overs') across the permeable organisational boundary (Chesbrough & Bogers, 2014).

"Social change means different things to different audiences" (Chirot, 1977, p. X). Generally, a theory of change should include elements such as structural aspects of change (like population shifts), processes and mechanisms of social change, and directions of change (Haferkamp & Smelser, 1991). Social innovation is targeting at a specific type of social change: a positive change for people, especially under-served populations. Although social change is often unplanned, social innovation is intentional, and therefore it is normative (value based), controversial, and political. The normative aspect is captured by the intention to 'improve the world', how modest or tiny its scale may be. At least, at a local level, social innovation initiatives are meant to make a difference for local community participants or for civil societies at a larger scale. That is what is driving the social innovators (especially when working with less privileged communities).

Open social innovation is according to Chesbrough and Di Minin (2014) the application to social challenges of either inbound or outbound open innovation strategies, along with innovations in the associated business model of the organisation. Inbound and outbound open innovation strategies refer to knowledge absorption and knowledge sharing. This spill over of knowledge goes via persons, platforms, communities, network, linkages, cooperations and interactions, in short through organising processes and relating people. When Chesbrough and Di Minin (2014) talk about the associated business models, they foresee that not-for-profit organisations have a need for a business model to sustain the provision of their services. These business models may shift their focus as an organisation shifts in how it deploys its inputs and outputs in producing goods or services. Innovation for not-for-profit and public agencies through knowledge spill overs is rich in opportunities, because these agencies are not facing the same kind of competition as the private sector. For

this reason organisations can afford to be quite open about sharing successful methods and practices that have proven to be effective. *"As other agencies embrace these methods and perhaps further improve upon them, a community of learning could emerge that could drive the social impact of these changes to new heights"* (Chesbrough & Di Minin, 2014).

Innovation in business and management, in its capacity as open innovation, may support social innovation and social change by the open flow of knowledge going in and out groups, organisations and systems. The Internet, social media use, and digital networking by users, innovators and change agents will get much of the job done.

An essential element of innovation, is that it not only brings social change in the form of new products, services, processes, methods and so on, or new combinations of the just mentioned elements with new materials and information, it also results in new combinations of social practices, in the form of new roles, relations, norms and values (Hochgerner, 2012). Here, Hochgerner points to social innovation as a process and underlines human behaviour, human thinking and reshaping human culture. There is of course an interaction with innovation in management, as these innovation domains overlap. The implication is not only new roles, relations, norms and values in the 'social' domain, but also in workplaces and organisations, between managers and employees. Social change within organisations then, brings to the fore the question how socio-economic systems that underlie an economy and its industrial and employment relations, shape and are shaped by human behaviour, human motives, human power relations and the distribution of wealth, welfare and political influence.

The lessons from innovation in management is that continuous change cannot be fully controlled or directed, but it can be intended (entrepreneurship) facilitated (innovation management). Successful innovating organisations develop routines that they may hardly aware of themselves because they seem to take for granted what they are good at (Jacobs & Snijders, 2008). If we try to map their findings on social innovation and change, we can formulate these concluding observations:

1. link social change goals to a social value business model
2. derive social needs from societal trends and how need fulfilment serves populations
3. understand how people see their future and their future social needs
4. be entrepreneurial in developing social solutions; think out of the box
5. combine small solutions, connect incremental social innovations
6. learn from critical social value indicators
7. get the best and most ambitious people committed and connected
8. create a democratic ambiance conducive to participation and creativity
9. build strong networks and social communities (of practice) among people and institutions
10. don't give up too easily

What we can further learn from the (Western) open economies and its open innovation, is the need to understand how difficult it is to predict market developments, consumer behaviour, and the development of innovations, especially how new combinations and new inventions will evolve and emerge. Once we accept this difficulty of not being able to fully control and predict what is our future (Stacey, 2010; Mowles ,2011), we can intentionally design our work organisations and our societal institutions from the perspective of ambidexterity (Tushman & O'Reilly, 1996, 1997). Organisations must absorb the paradoxical challenge of dualism, that is functioning efficiently today while innovating effectively for tomorrow, by operating in multiple modes of innovation simultaneously (Katz, 2003; Sutherland & Smith, 2011). The same holds for societies in general, implying that social innovation must incorporate and absorb paradoxical demands of today and tomorrow.

Social innovation today is partly driven by persons and organisations chasing ideals and by governance bodies that seek cheaper ways to deliver services. In between citizens and public bodies are social entrepreneurs who want to make a living out of helping others in a socially acceptable way. Social innovation can learn from innovation in management to be careful with scarce resources and to get the maximum out of these; it can learn how to tap on the potential of stakeholders for knowledge and co-creation. Management and business innovation can learn from social innovation how pragmatism can be combined with striving for morally just goods, how optimism drives social change and that pooling human resources can contribute to the makeability of society (Mulgan, 2012). A thought – makeability – abandoned by western societies decades ago (Bell, 1976). Where capitalism can be harsh, impersonal and cynical in some ways, social innovation opens up beckoning perspectives of a better world with a more moral economy. The truth often lies somewhere in the middle, and from the dialectical tension between economics and social value we may expect seemingly incompatible goals, but we would prefer to be surprised by serendipitous innovations far beyond our imagination.

Key lessons learned for a theoretically sound and comprehensive concept of SI and its relationship to social change

Innovation in management is a 'multi-headed monster' which makes it both a rich and a slippery concept when applied to social innovation. Outcomes of innovations are hard to manage and predict, if not impossible, but the process can be guided and facilitated. Change related to innovation stresses the need of awareness that every stage or phase demands different skills and competencies, and thus different roles and responsibilities. A critical vigilance on these risks and pitfalls of social innovation as social change could help agents and innovators. Key lessons learned are therefore;

SI as a concept:

- Open (social) innovation (absorption of external knowledge) implies social cooperation, social cohesion, social tolerance.
- Market-sense of urgency is a driver in business innovation, but not for social innovation. Absence of market pressure implies a new moral economy (consequences for neoliberalism, venture capitalism?).
- Unavoidability of complexity and unpredictability must be taken into account (you cannot realise it by 'simplistic' governance).

Social change:

- Each stage of change/innovation demands other skills/expertise.
- Certain innovation routines/disciplines are leverage factors but their combination is always unique to the situation.
- 7 out of 10 innovations fail: what failure rate is acceptable with regard to social issues is a matter of further (public) debate; but it makes clear that it demands a certain level of resilience of society and citizens.

Research questions

- Innovation in management and social innovation are driven by different drivers and motivations: under what conditions are these (sometimes contradictory) economic and social drivers reconcilable (into a new moral economy)?
- Innovation stresses deviance, distinctiveness and uniqueness (USPs, innovative capabilities); how can this be aligned with social goals of collectivities and communities?
- Is the dominance of a certain welfare state model (e.g. social innovation is relatively widespread within the Anglo-Saxon model) a necessary condition for social innovation?

- Europe can no longer solve societal problems without social innovation; but social innovation alone is an insufficient condition, because we also still need technological, business and economic innovation. As this is an issue of political values and norms as well: how can (all) these innovation domains mutually benefit from each other (quadruple helix, integrated systemic innovation)?

- How can we upscale (social) innovation with at the same time keeping space for /doing justice to local social innovations and local social change?

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9 CONCLUSIONS

Anna Butzin (IAT), Jürgen Howaldt (TUDO), Dmitri Domanski (TUDO), Christoph Kaletka (TUDO), Matthias Weber (AIT)

9.1 GENERAL REMARKS

The critical literature review lays the foundation for a theoretically sound and comprehensive concept that includes the process dynamics of social innovation and the enhanced roles of citizens, communities, non-profits and other actors previously not prominent in the innovation process. Connecting social innovation research with experience in existing studies, explicitly including studies on technological and business innovations helps to clarify the scientific concept and to develop a framework for the upcoming empirical analysis of social innovation cases in the seven policy fields.

Based on the five key dimensions of social innovation we will discuss the key lessons learned and research questions for the empirical work.

We grouped the r*esults into two categories*:

- Key lessons learned regarding a theoretically sound and comprehensive concept and as starting point to verify existing social theories

- Hypotheses or research questions for field work
  (mapping 1 and 2; case studies)

9.2 KEY LESSONS LEARNED AND RESEARCH QUESTIONS

9.2.1 Concepts and understanding of innovation

The importance of social innovation for successfully addressing the social, economic, political and environmental challenges of the 21st century has been recognized not only within the Europe 2020 Strategy but also on a global scale. So *"in recent years, social innovation has become increasingly influential in both scholarship and policy"* (Moulaert et al., 2013, 1). However, despite this growing awareness of the significance of social innovation, a sustained and systematic analysis of social innovation, its theories, characteristics and impacts is still lacking. A plethora of vastly diverging subject matters and problem dimensions as well as expectations for resolving them are subsumed under the heading *social innovation* without appropriate distinctions being made between various social and economic implications, the conditions governing its inception, its genesis and diffusion, and without clearly distinguishing it from other forms of innovation (European Commission, 2013).

In light of the increasing importance of social innovation, SI-DRIVE places considerable emphasis on developing a theoretically sound concept of social innovation as a precondition for the development of an integrated theory of innovation which considers social, business, public sector and technological innovation. In this theory, social innovation is more than a mere appendage, side effect and result of technological innovation. Only by taking into account the specific properties of social innovation will it be possible to analyse the relationship between social innovation and social change.

Social innovation has many different (and sometimes conflicting) meanings, spanning a variety of areas such as innovation studies, management and organisational research, the field of workplace and quality of working life, as part of the social economy, in sustainable development, or as an aspect of local competitiveness and territorial development (Howaldt & Schwarz, 2010; Franz et al., 2012; Rüede & Lurtz, 2012; Moulaert et al., 2013). The chapters of the CLR reflect this diversity of definitions and concepts.

The different chapters of the CLR open the view on a *theoretically sound concept of social innovation grounded in theories of social change, innovation studies and social innovation research*. The CLR started from the SI-DRIVE working definition which describes social innovation *"…as a new combination or figuration of practices in areas of social action, prompted by certain actors or constellations of actors with the goal of better coping with needs and problems than is possible by use of existing practices. An innovation is therefore social to the extent that it varies social action, and is socially accepted and diffused in society (be it throughout society, larger parts, or only in certain*

societal sub-areas affected).” This working definition also foresees that, depending on circumstances of social change, interests, policies and power, successfully implemented SI may be transformed, established in a wider societal context and ultimately institutionalised as regular social practice or made routine. Once the innovation becomes standard, new demands for change may occur and possibly give rise to a new wave of social innovations.

According to social practise theories (SPT), the social world is composed of very specifically nameable, individual, although interdependent practices: practices of governance, of organizing, partnership, negotiations (Reckwitz, 2003); practices of comfort, cleanliness and convenience (Shove, 2003), practices of working and nurturing (Hargraves et al., 2013), practices of consumption (Brand, 2010).

“The concept of imitation underpins an understanding of innovation which focuses on social practices” (Howaldt et al., 2013, p. 9). Therefore, in the context of diffusion, it has been argued that:

Social innovations encompass new practices – concepts, policy instruments, new forms of cooperation and organisation – methods, processes and regulations that are developed and/or adopted by citizens, customers, politicians etc. in order to meet social demands and to resolve societal challenges in a better way than existing practices. The emergence of such new social practices, including patterns of imitation and adaptation, will be subject to further research.

Research Focus 1

In this perspective the research will be focused on analysing the process of invention, implementation (introduction to a context of use), diffusion and institutionalisation of new social practices in different areas of social action. A great deal of attention should be devoted to better understanding the relationship to technological innovation as well as innovation oriented at creation of economic rather than social value.

9.2.2 Objectives and social demands, societal challenges and systemic change addressed

There is a strong relationship between social demands, unmet social needs and societal challenges in different research fields and theoretical approaches (chapter 2, 3, 5, 7). So the SI-DRIVE approach emphasises that a social innovation initially consists of an initiative and impetus for change in social practices that in some way or another contributes to limiting social problems or satisfies needs of specific societal actors[61].

Nevertheless, a closer look at the results of the innovation studies reveals that the concept of innovation is not suited to distinguishing ‘good’ and ‘bad’. *“The normative linking of social innovations with socially highly esteemed values, which is often found, ignores the fact that in each case according to the differing perspectives concerned and prevailing rationalities, different goals and interests certainly can be pursued with a social innovation. Accordingly, depending on whose interests and social attributions are involved, social innovations in no way have to be considered ‘good’ per se in the sense of socially desirable in order to be called a social innovation – ‘there is no inherent goodness in social innovation’ (Lindhult, 2008, p. 44). Their benefit and their effects, depending on the point of view, just as in the case of technological innovations, can indeed be ambivalent”* (Howaldt & Schwarz, 2010, p. 61).

However, it is also obvious that practitioners such as governments and international organisations tend to prioritise some social innovations over others as ‘socially desirable’ which clearly can affect social innovation research priorities. The conclusion is:

Referring to both the normative and analytical concepts of social innovation highlights the importance of identifying to whom a social innovation is ‚desirable‘ – whose objectives and whose demands are being met and whose objectives and demands are being overlooked?

This difficulty is reflected in heterogeneous and conflicting interests in different societal sectors, e.g. in civil society (Scopetta, Butzin, & Rehfeld). We also have to consider *“unforeseeable social side effects”* (Howaldt & Schwarz) of social innovations. Their impact may differ according to different actors or groups of actors and

[61] However, it is important to notice that the outcome of a social innovation process might differ from the original intention of social innovation actors.

there may be winners and losers of social innovation (chapter 7), e.g. according to *"different perspectives of development"* (e.g. Western against native) (chapter 3). Establishing a new social practice can mean – using a Schumpeterian term – 'creative destruction' of another previously dominating social practice.

Research Focus 2

In this regard the empirical research will put more emphasis on analysing the ambivalence of the outcomes of social innovation (i.e. social side effects, unforeseeable consequences, different perspectives), also in relation to actors' intentions.

Considering the experiences in the field of technological innovation a pending task would be thinking towards a concept of Social Innovation Assessment, as one aspect of policy recommendations to be developed.

9.3 PROCESS DYNAMICS

9.3.1 Processes of institutionalisation

Considering the complexity of innovation we need to understand the process dynamics of social innovation on the one hand and its relationship to social change on the other hand.

The process dimension of social innovations concerns the creation and structuring of institutions as well as behavioural change (Hoffmann-Riem, 2008, 591ff.), and the empowerment of actors (Crozier & Friedberg, 1993, 19). The decisive criterion in a social invention becoming a social innovation is its institutionalisation or its *transformation into a social fact* (Durkheim, 1984), in most cases through planned and coordinated social action.

The conclusion is:

The successful implementation and/or active dissemination of a new social fact *usually* follows targeted intervention, but can occur also through unplanned diffusion (Greenhalgh et al., 2004) – how much this is the case will be subject to research.

The processes by which social ideas and inventions spread through existing communication paths in a social system depends on the type of social innovation, their compatibility with the practical rationale in certain fields and their 'utility' in terms of (future) adopters. Following an initial understanding of innovation described by Rogers (1962), social innovations would evolve in a given social environment, from which diffusion would expand in similar forms of mainly S-curves (known since Tarde, 1903; Rogers, 1962). Based on the works of these forerunners in diffusion of innovation theory, more recent studies however have pointed out especially the complexity of the diffusion process which has not been sufficiently understood, characterising innovation *"as a journey that is not sequential or orderly, but messy and unpredictable"* (Nutley, Davies, & Walter, 2002, p. 14).

Among recent approaches design thinking appears to be promising in order to plan and target the process dynamics of social innovation. Small-scale social dimensions of innovations are core to this approach with innovation being considered as result of an interactive iterative process of finding solutions. The design thinking process is described as *"a system of overlapping spaces rather than a sequence of orderly steps"*. The *"three spaces"* are inspiration, ideation, and implementation (chapter 6).

Research Focus 3

From this perspective one of the main objectives of the empirical work of the SI-DRIVE project should be analysing the process dynamics of social innovation (idea –implementation (introduction to a context of use)– social practice – institutionalisation) with a focus on invention, implementation, diffusion and reinvention.

9.3.2 Social change

In order to target the overall goals of the project it is imperative in theory and praxis to comprehend how *social innovation relates to social change*. The widely accepted (terminological and/or functional) nexus between social change and social innovation is associated with an *"overly high demand"* on social innovation (Kesselring &

Leitner, 2008). The relationship with social change should not be seen as the sole defining predicate of social innovation, though there are correlations in some respects. However, if social innovations could not sufficiently be separated in substance and functionality from aspects of social change, innovations in general or other specific innovations, 'social innovation' would not be useful as an analytical term or subject for empirical research. The material difference between social change and social innovation rests in the latter being associated with *"planned and coordinated actions"* (Greenhalgh et al., 2004, p. 1). As such, it seems that the nature of the relationship between social innovation and social change is under-explored.

The main conclusion is:

While social and economic problems identified in public discourse are increasingly prompting a call for extensive social innovation, the relationship between social innovation and social change remains a largely under-explored area in the social sciences as well as government innovation policies. To better understand the relationship between social innovation and social change we have to analyse the mechanisms of social innovation processes (e.g. imitation and social learning).

Research Focus 4

Special attention will be devoted to social innovation as a mechanism of change residing at the micro and meso level. The reasons for this, as stated in the introduction, are (1) the shortcomings of older models of social change and of an economically and technologically focused innovation model and (2) the potential of new forms of governance, participation and self-help as new social practices becoming apparent.

In the context of the broad debate surrounding sustainable development and necessary social transformation processes (Geels & Schot, 2007), the question of the relationship between social innovations and social change arises again. To better understand this relationship we have to analyse the social embeddedness of any innovation in a dense network of innovation streams.

Taking into account the micro-foundation of social change we have to analyse how processes of social change can be initiated which go beyond the illusion of centralist management concepts to link social innovations from the mainstream of society with the intended social transformation processes.

9.4 GOVERNANCE, ACTORS, DRIVERS AND BARRIERS

9.4.1 Governance

Governance systems are comprised of actors, their modes of interactions and the institutional frame. One way to approach governance of social innovation is to elaborate the specifics of social networks and their institutional embeddedness. By taking social networks as one point of departure, we might also be able to get insight into mechanisms through which social innovations are created and diffused, also as concerns the typology of social innovation to be developed in SI-DRIVE. Networks, including social networks, can be further studied by concretizing the way actors cooperate, the kind of relations and communications they have, as well as the question of how power structures influence the governance system. This means:

„To understand the modes of governance of social innovation, one focus should be on networks, including social networks, and their actor constellations, modes of cooperation and communication channels."

The chapters of the literature review, in particular chapter 4, 5 and 7 have provided starting points of how diverse modes of governance might be according to the mode of innovating. For example governance structures might differ according to the intention or purpose of actors (i.e. the formation of a strategic alliance to communicate interests, to have access to various resources in the process of innovating/ community of practice, etc.). As with innovation management within firms, the role of employees and the governance of employee involvement in innovation processes at the work place is a central question. Concepts such as frugal and reverse innovation originating from the global south describe alternative innovation logics (downscaling and innovations diffusing from the global south to the global north) with supposedly different governance structures that need to be understood to grasp the variety of types of social innovation and vice versa.

Research focus 5

As a conclusion relating to the diverse forms of governance we suggest studying the ***the specific governance in different types of social innovation processes and assess the particularities as compared to other innovation processes.***

9.4.2 Actors

During the following section the focus will be on the question of *actors*. The critical role of *various actors* (individual and collective) in developing social innovation is obvious in many chapters of the literature review. Concretely, several types of actors have been discussed throughout the chapters:

- Social enterprises (chapter 4) and other actors of the social economy (chapter 5)
- Civil society (chapter 5)
- Social movements (chapter 5)
- Science, Universities and Research Institutes (chapters 4, 7)
- Companies (chapter 8)
- Customers/ users/ citizens/ beneficiaries (chapter 5)
- Designers (chapter 6)
- Poor and marginalised groups (chapter 3)
- Government actors (chapters 5, 7).

The different roles and functions of actors need to be studied during future research of SI-DRIVE. However, as compared to other actor types, social enterprises are already much elaborated not only in scientific terms (there are several international journals about social enterprises and entrepreneurship) but also as concerns public supporting infrastructures (such as dedicated business competitions). Because of this dominance, there currently seems to be in some areas a somehow exclusive relation drawn between social entrepreneurship and social innovation. As a consequence, there is under-representation of the various other actor types and their specific impulses and impacts as generators of social innovation.

To develop an integrated understanding of the role of various actors in social innovation, a broader concept is needed that appreciates social entrepreneurship but also takes account of other actor types.

Research focus 6

As a conclusion, therefore, it is suggested to put efforts in discussing different types of actors and roles in the generation and spread of social innovations.

Furthermore, a research focus on diverse actor types relates – again – to the issue of adequateness and transferability of existing concepts. Quite obviously, actor constellations in innovative environments have been conceptualised in a more general way by the triple and quadruple helix models (chapters 4 and 7). However, **there should also be openness towards the potential of developing new conceptual models describing actors' relations and functions in social innovation.** This would contribute to the creation of a typology of social innovation as foreseen in SI-DRIVE.

9.4.3 Drivers and barriers of social innovation

When viewing drivers, barriers and governance of social innovation as an *interdependent conglomerate* with mutual influences and impacts, the systemic characteristics of social innovation are immediately obvious[62]. Properties of one of the components affect those of the other two, and changes within them will necessarily result in changes of the others. At the same time, barriers can also be drivers or evolve into drivers. Probably, it is also possible vice versa. However, questions of barriers, power and conflict are addressed in less detail throughout the chapters, which is a consequence of the general neglect of these issues in the current

[62] To make this issue even more complex, not only drivers, barriers and governance constitute a system but also the innovation context, social and institutional structures, etc.

literature. However, as with any innovation, social innovation too might take place alongside conflict and replacement of other social routines, arise out of it, or potentially even create it[63]. Therefore,

In order to establish a systemic view upon social innovation, it is suggested to put an additional research focus on the drivers and barriers of social innovation, including the influence of power, the role of conflict, and the relation to inequality.

For a first – broad – understanding to be developed further as part of future work in SI-DRIVE, drivers can be understood as factors that stimulate and facilitate the emergence and diffusion of social innovation; barriers as factors that hamper or impede the emergence and diffusion of social innovation.

The systemic characteristic of social innovation has been discussed throughout a variety of chapters (in particular chapters 3, 4, and 7), expressed in non-linear trajectories (chapter 7), aspects of risk and reflection, as well as of incompatibility with planning and limited manageability of innovation (chapter 8).

In the field of innovation studies (chapter 7) as well as in management studies (chapter 8), the complexity and systemic character of innovation has been elaborated by the development of diverse concepts (e.g. innovation systems, open innovation, etc.) that by now are established and broadly appreciated. These concepts are based upon different components, among them almost always a conceptual operationalisation of drivers, barriers and governance (even if these might have been labelled in different terms). For example, both the concepts of innovation systems and the triple-helix constellation of actors recognize appropriate constellations of key actors (i.e. in particular universities, industry and government) as being important for innovation development. Similarly, the open innovation concept regards the early involvement of customers in innovation processes as a crucial enabling factor of innovation.

In what Rifkin (2014) calls *"a 'collaborative economy and society', people and organisations do not just share existing goods and services but are also empowered on a large scale, for the first time since the modern market economy formed, to also produce these themselves as so-called 'pro-sumers' largely bottom-up and laterally. In all this recent theory development, ICT plays a critical enabling role, although its precise impact is as yet far from clear"* (chapter 7).

These concepts have been helpful to understand drivers, barriers and governance of innovations and because of their pertinent clarity they are also widely diffused in political programs and strategies to support innovation.

Research focus 7

There is a lot to learn from these concepts for scholars of social innovation **and it should be thoroughly tested, in how far concepts of innovation studies are applicable to study the systemic dimension of social innovation and thus are of relevance for better understanding of particular drivers, barriers and governance.**

9.5 RESOURCES, CAPABILITIES AND CONSTRAINTS

Civil society as an innovation actor is a widely untapped area, especially when it comes to questions about how resources are mobilised and used by actors of civil society in order to innovate. Therefore,

"We have to put a strong focus on the role of civil societx (citizens, NGOs, social movements, communities) in the innovation process. In particular, we should analyse how the social innovation cases in SI-DRIVE have diffused and whether this facilitated the empowerment of citizens."

However, given the fact that SI-DRIVE is a research project of global reach, the conception of what is considered as civil society might need adjustment to the specific contexts of the diverse world regions.

A specific focus of concepts and approaches such as theory of change and appreciative inquiry *"is their relevance for the processes of social innovation, in particular the bottom-up, self-driven and self-controlled practices*

[63] Consider the recent protests of European taxi drivers against UBER (a rapidly expanding start-up from the US that enables regular car-drivers to offer driving services to other citizens via an UBER-app).

involved in which traditional development paths are shunned or revised based on what the community itself sees as its most important assets and goals. Indeed, these approaches are largely about the process of change itself, where goals are often identified during rather than prior to the process, and the recognition that these processes are rarely linear but instead have many feedback loops that need to be understood within the context of experimentation and social innovation" (Chapter 3). Furthermore, the approach of design thinking might be appropriate to foster the role of civil society through living experiences and change-oriented capacity building (chapter 6).

Therefore, another research focus when analysing the SI-DRIVE cases might be related to the question *"how can we enhance the innovation capacity of society"* and *"how can we empower citizens"?*

Alongside civil society, the social economy is an environment equally often mentioned as an important source of social innovation[64]. It is thus suggested to pay particular attention to the environments of civil society and the social economy (chapter 5) in order to understand their particular distinctions. Studying these distinctions is of special relevance for public decision makers, as it provides the relevant background against which supporting infrastructures can be developed.

Research focus 8

What are the particular distinctions of these areas/fields, especially related to the set-up of supporting infrastructures for social innovation?

9.6 SUMMARY AND OUTLOOK

9.6.1 Summary

The chapters of the CLR provide an overview of the current state of international research on SI explicitly including studies on technological and business innovations. The overview confirms the lack of a theoretically sound concept of social innovation which is able to describe commonalities and differences and thereby coherently interlink the different policy areas and research fields in which SI is already playing a prominent role. Innovation in general and social innovation in particular are conceptualised in many different ways. This relates to the mostly problem-driven and intervention oriented type of research tailored to understand and finally overcome strategic challenges in said policy fields.

At the same time there is no clear understanding of how social innovation leads to social change of existing structures, policies, institutions and behaviour. Obviously, phenomena of social change have been consistently looked at in innovation research conducted within the social sciences (chapter 7). And especially in areas such as energy, mobility or health, all defined as distinct policy fields of the SI-DRIVE project, social and technological elements of innovation are closely interwoven and, for the sake of describing their influence on social change, can hardly be separated. This may also become apparent in the upcoming empirical phase of the project. Still, the new paradigm of innovation, reflecting the transition from an industrial to a knowledge- and service-based society, calls for social innovation to be considered an independent field of innovation and innovation research following its own rules. This takes a new perspective on social innovation which so far has been focusing predominantly on the social preconditions, effects and processes relating to technological innovations and the technology-centred innovation paradigm of explaining social change. From such a perspective of an distinct type of innovation there is no shared and theoretically coherent understanding of the relationship between social innovation on the one hand and social change on the other.

What we can find are approaches relevant for a better understanding of the relationship between social innovation and social change in social theory (chapter 2). In combination with new approaches in innovation studies (e.g. the multi-level perspective on system innovation, MLP) they could build the basis for the development of a theoretically sound concept of social innovation as a driver of social change. And while the MLP is focusing on transitions in regimes, social practice theory (SPT) is contributing another relevant perspective by focusing on transitions in practice as the ultimate unit of analysis.

The CLR provides a theoretical framework for understanding and discussing social innovation concepts, processes and impact within the next steps of SI-DRIVE. It reflects the current debates of the field in order to

[64] Civil society and social economy (chapter 5) are often mentioned in relation to social innovation. However, social entrepreneurship is still dominant and much better understood.

represent state-of-the-art considerations, rather than discussing theoretical strands that are of potential relevance but nevertheless have yet not been engaged in the issue of social innovation (e.g. policy systems perspectives). It will be the basis for an improved understanding of the relationship between social innovation, technological innovation and sustainable social change as well as the development of a typology of social innovations and elaborate a sound theoretical understanding of social innovation. This can stimulate further and increasingly interlinked research in different policy areas and research fields (chapters 4 and 5).

While the overview on the different chapters shows that the concepts and understandings of social innovation differ across research fields, it also identifies some overarching similarities and trends:

- There is a growing awareness of the significance of social innovation. A plethora of vastly diverging subject matters and problem dimensions as well as expectations for resolving them are subsumed under the heading 'social innovation' without making distinctions between different social and economic meanings, the conditions governing its inception, its genesis and diffusion, and without clearly distinguishing it from other forms of innovation

- The innovation process is opening up to society. Companies, universities and research institutes are not the only relevant agents in the process of innovation. Citizens and customers no longer serve as mere suppliers for information with regard to their needs (as in traditional innovation management); they make active contributions to the process of developing new products and to the resolution of problems. Terms and concepts such as open innovation, customer integration and networks reflect individual aspects of this development. At the same time, innovation – based on economic development – becomes a general social phenomenon that increasingly influences and permeates every aspect of life.

- Alongside with these processes we perceive a growing variety of actors within the innovation process and a growing awareness of the complexity of innovation processes, along with increasing demands as far as the management and governance of innovation are concerned. This also resonates in the rise of design thinking as a heuristic approach to multi-disciplinary problem-solving through a structured process (chapter 6).

At the same time we find a lot of conceptual differences in the theoretical fields not only with regard to the concept and understanding of innovation but also regarding:

- the role of technologies,

- the main actors and drivers,

- the relationship to social change,

- the governance and framework conditions and

- the significance of power and conflict.

Other aspects that play an important role as cross cutting themes in the SI-DRIVE approach (e.g. gender and diversity, financial resources and legal conditions, demographic change and policy instruments) have not been addressed sufficiently yet. This will be a task of the methodological and mapping work packages (WP2 and 3) as well as the distinct policy fields (WP 4-10).

Nevertheless, the critical literature review delivers a comprehensive overview of the state of the art of theoretically relevant building blocks for a theory of social innovation. For the first time it collects different theoretical approaches which are conducive to a deeper understanding of social innovation and provides an overview of relevant literature in the field of social innovation combining the different fields of theory.

Despite lacking a coherent theory, the chapters of the CLR help to clarify the scientific concept of social innovation as a new combination or figuration of social practices. In the next step they will help to empirically test the broadly used classification of social innovation and to apply the social innovation concept in theoretical and empirical research to all sectors of society (public, private business, and civil society), in Europe as well as other world regions. The CLR will help us elaborate hypotheses as the basis for upcoming empirical

work and further develop the SI-DRIVE approach summarised in the pentagon reflecting the five key dimensions of social innovation. The results of this CLR will thus build the starting point for the empirical work of SI-DRIVE, diversified in seven distinct policy fields and yet linked by a coherent theoretical and methodological framework.

The pentagon presented below summarises the key dimensions which fundamentally affect the potential of social innovations, their scope, and their impact. It helps us develop their relationship to social change. And it also helps us understand the complexity and ambivalence of any innovation and to take a strict scientific approach of looking at and analysing social innovations throughout their life cycles, from ideation and intentions to actual implementation and impact – which may turn out or may be discerned quite inconsistently (ranging from 'good' to 'bad') by different social groups, strata, or generations. The pentagon structure is our basis to apply the social innovation concept in theoretical and empirical research to all sectors of society (public, private business, and civil society) as well as to European and other world regions.

However, during the process of collecting and analysing literature relevant for the critical review and producing this result we realised that some important changes (in italics in Figure 15) and additional explanations have to be made with regard to the five key dimensions of social innovation which will frame the upcoming empirical research phase.

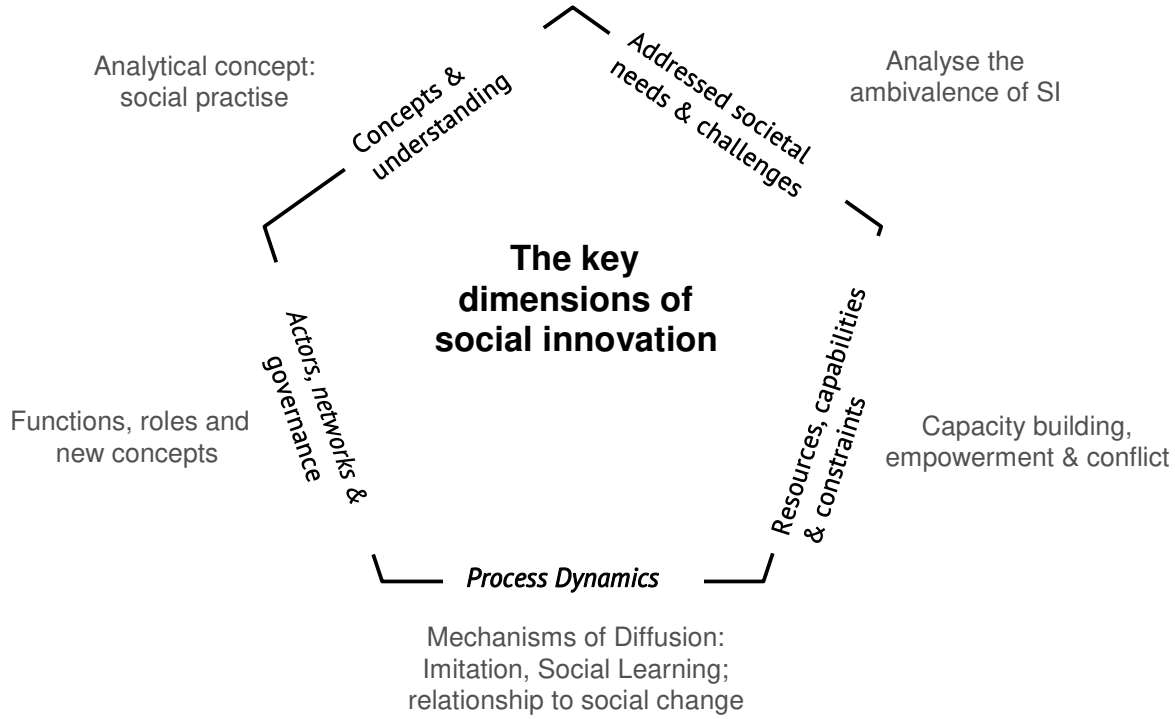

Figure 15: Key dimensions

Considering the complexity of innovation processes we need a broader concept than the social innovation cycle to understand (1) the *process dynamics* of social Innovation and the *process dynamics* of the relationship to social change that is focused more on social practice and the process of institutionalisation. This will open up a new perspective on the relationship between social innovation and social change. At the same time it will be necessary to put a stronger focus on the social mechanism of innovation processes (e.g. social learning, imitation).

It also became clear that a great deal of attention should be devoted to better understand the diversity of: (2) *actors and their roles and functions* within the innovation process (including their interaction in networks etc.) and the framework conditions including governance models; (3) concepts and understanding; (4) addressed societal needs and challenges; and (5) resources, capabilities and constraints. Together these different components will guide and structure the consecutive steps of the empirical mapping.

9.6.2 Outlook

Theoretical framework for the empirical work

The CLR facilitates the elaboration of the particular features of a social innovation concept towards the development of a sound theory, and the establishment of coherent methodologies to identify and promote social innovations. The theoretical analysis first provides a general depiction of how social innovation resonates within the wider frameworks of existing innovation theory and research, the concepts and perceptions of social change, and of societal and policy development. The (revised) five key dimensions of SI are essential in assessing the relations identified.

Subsequently, now empirical research will be undertaken to classify what can be observed in reality into a typology of social innovation. Following the overall research questions of understanding the relationship between social innovation and social change, the empirical research will cover seven policy areas and eight cultural/world regions. SI-DRIVE will analyse the differences and commonalities between social innovations in these areas to understand how social innovations develop, spread and scale under different conditions and in relation to the cross cutting themes indicated above.

Two major mapping exercises are foreseen at European and global level. The first will provide an overview of various types of social innovations in the seven policy areas. The second will include in-depth and detailed case studies of specific innovations in the policy areas (separately looked at in the eight world regions). The results will provide new intelligence about the variety of social innovation approaches in different parts of the world used by practitioners, researchers and policy makers. By taking a comparative approach across regions and policy areas, SI-DRIVE research will address a substantial gap in the evidence base by facilitating a comprehensive understanding of the roles and impact of social innovations in different cultural contexts, including (unforeseeable) social consequences and ambivalence

The results of this CLR are the starting point for the empirical work of SI-DRIVE and the development of a framework for:

- conceptualising SI through the analysis of normative literature,
- mapping SI initiatives in Europe and across the world through desk research,
- defining the research propositions and typology for SI based on literature review and state of the art analysis and
- formulating a knowledge base on social innovation.
- It will also influence the database manual (design, functions and use) which will be developed in WP 3.

WP Theory: The next steps (April 2016)

The next phase of the project aims to deepen the theoretical foundations of the concept of social innovation by carrying out empirical research. This includes empirical data and case studies in seven major policy areas for all European Union (EU) countries supplemented by regional trend studies that include the major world regions and embedding cross-cutting themes (key dimension) as a portfolio for every policy area and region: financial resources, information and communication technologies (ICT) and social media, social entrepreneurship and social economy, social enterprises, gender, equality and diversity, poverty, governance, innovation networks, demographic change.

In particular, a comparative analysis will be conducted on all cases of WPs 4 to 10. This will be used to inform and reinforce empirical analysis within the case study WPs, and as an input to WP 11 policy recommendations.

The purpose of this second stage analysis is:

- to explore key issues that are pertinent to the support/success or detriment/failure of the cases;

- to start exploring possible trends and drivers that will shape the future of social innovation in the respective areas.

In addition, this cross-cutting thematic analysis will enable the identification of key policy issues of citizen empowerment, access to finance, scaling-up models, skills and training, social entrepreneurship and collective creation and diffusion (Task 1.3: Comparative analysis across sectors and across countries for WP4-10).

Using the inputs of these preliminary studies we will provide a comprehensive architecture for understanding and discussing social innovation concepts, processes and impact. This framework is novel in its explicit consideration of different dimensions of social innovation. It will also deliver a typology of social innovations and elaborate a general theory of social innovation (Task 1.4: Deliver a typology of social innovations and elaborate a general theory of social innovation)

We also will be engaged with leading international scholars in order to compare scaling and learning patterns of social innovation and entrepreneurship in Europe, North and South America, Asia, and Africa.

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