transformative social innovation theory

TRANSIT WP3 deliverable D3.2 – "A first prototype of TSI theory"

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1 Introduction

1.1 Purpose and context of this deliverable

The purpose of this deliverable (D3.2) of the TRANSIT research project is to report on the development of a 'first prototype' of a middle-range theory of transformative social innovation.

The 'prototype' is presented here in the form a *framework for Transformative Social Innovation*, which at this point (in the research process) consists of a theoretically-grounded conceptual framework for TSI together with a set of propositions about the dynamics of TSI, that have been developed based on the findings of the first phase of empirical research in the project.

The resultant framework for TSI provides a structure that is intended to be *generative* of further empirical research and theory development, rather than being a 'fully formed' theory at this stage (see also section 1.2 below). Thus it brings together different theoretical resources and 'building blocks' in ways that are not yet fully integrated but that rather frame further theory development, and similarly the propositions about TSI dynamics presented, are not yet fully validated statements about TSI dynamics but rather represent a preliminary and tentative structuring of our insights about TSI, and imply the questions that need to be asked in further developing a theory of TSI. The version of the framework for TSI presented here was developed during the first 15 months of the project based on a series of research activities, including:

- Developing an initial conceptualisation and theoretical framing of social innovation (SI), including mapping how it has been understood until now, and making choices about how to theorise and conceptualise social innovation in this research project.
- Developing an initial understanding of what we mean by transformative change and developing working definitions and a conceptual framing of transformative change.
- Developing a set of theoretical reviews of existing bodies of theory (see Annex 2) selected both from the SI literature and from bodies of theory that have not yet been widely used in SI research but that were judged to be potentially useful to this project.
- Wide ranging discussions, dialogues and debates aimed at conceptual and theoretical grounding of the TSI concept; including both discussions within the project and consultation within the Social Innovation (SI) research community.
- A first Theoretical Integration Workshop (TIW) which brought together the findings of the first batch of TRANSIT case studies with the theory development (see Annex 3 for a workshop report). Based on the outcomes of this TIW, the WP3 team developed a consolidated set of propositions about TSI dynamics (see chapter 3 of this report).

This deliverable (D3.2) very much represents a 'work in progress': it will be followed by two further iterations of prototypes of the TSI theory (in years 3 and 4 of the project). Its purpose within the timeline of the research process is three fold: firstly, it informs the next phase of empirical case study research in the project (the 'batch 2' cases) with a conceptual framing and set of propositions; secondly, it informs the survey and meta-analysis to be conducted in WP5; and finally, it also provides a basis for the next steps in the theory development work in WP3.

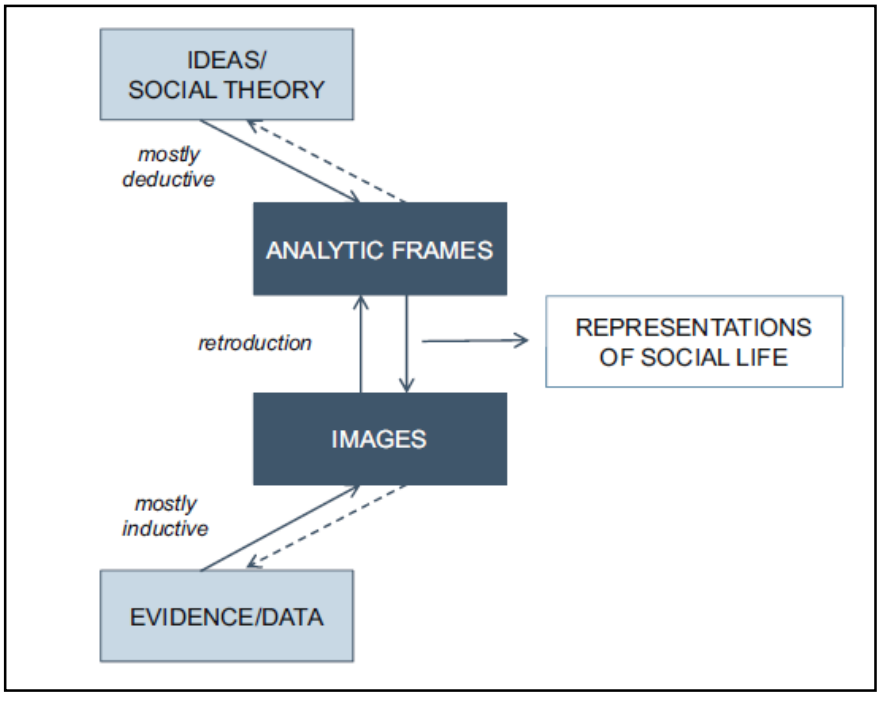
1.2 On this 'first prototype of TSI theory'; status and methodological background

As this deliverable (D3.2) constitutes a 'first prototype of theory' but also brings forward various 'concepts' and 'framings', it is worthwhile to briefly clarify some of the theoretical-methodological background to these notions[1]. Crucially, as is indicated with the 'first prototype' term, this deliverable is a milestone in a more encompassing ongoing process of revising, reformulating and sharpening theoretical propositions on TSI– it's a solidified but transient moment in theory formation. D3.2 thus presents the initial framework for TSI developed in the project, the proceedings of the first 'theoretical integration workshop' in which case study findings were confronted with a refined theoretical framework, next to the current stage in theory development. The particular kind of prototype 'theory', 'concepts' and 'framings' presented here, i.e. the status they have as conjectures, truths and assumptions etc., can be better understood against the following theoretical-methodological considerations: The choice for a middle-range theory approach (1); the trust in retroduction as a research strategy (2); the upholding of a relational, complexity-based ontology (3), the striving for practically empowering process theory (4).

1) Middle range theory. As also laid down in the DOW, TRANSIT does strive for a general theory of TSI, but does not take the approach of abstract systems theorizing (as it is common in transitions studies). A middle-range theory development approach (see Merton 1949, Hedstrom 2005) provides a tried and tested method for building such a new empirically-grounded social theory. Middle-range theory aims to integrate theory and empirical research. It is currently a widely used approach to sociological theory construction. Middle-range theory starts with an empirical phenomenon (as opposed to a broad abstract entity like the social system) and abstracts from it to create general statements that can be verified by data. Hedstrom's development of the middle-range approach focuses on social mechanisms, understood as "a constellation of entities and activities that are linked to one another in such a way that regularly brings about a particular type of outcome." (Hedstrom 2005: 11). The aim is to: "explain an observed phenomenon by referring to the social mechanism by which such a phenomenon is regularly brought about" (ibid.). Hedstrom (2005: 35) provides three desirable criteria for a middle-range theory: 1) it should be psychologically and sociologically plausible; 2) it should be as simple as possible, and 3) it should explain action in meaningful and intentional terms. A suitable approach to TSI theory development can then be specified as a step-wise process in which an initial conceptual framework is used to generate inductive propositions about TSI dynamics which are then compared to the findings of empirical research. This leads to the typically iterative development of TSI middle-range theory: in which the first-batch cases were guided by a first set of sensitizing concepts, and the second batch by a second set – as contained in this document (Cf. Jørgensen et al. 2015, Ch.2).

[1] More extensive accounts of research design and methodological choices are to be found in TRANSIT Description Of Work, and especially deliverables D4.2 and D5.1

2) Retroduction. TRANSIT, as any social science project, uses concepts, theory and framings to construct representations of social life. In social science, abstract knowledge about social life is called social theory (Ragin, 1994, p. 60). Social theories are indispensable when it comes to explanation, since they conceptualise causal mechanisms (Danemark et al., 2002, p. 121). Crucially, it's necessary to engage in a dialogue between ideas ("theory") and evidence ("data") in order to construct representations of social life (Ragin, 1994, p. 55). According to Ragin, analytical frames are derived from social theories; they constitute ways of seeing/ looking at evidence. Images, in contrast, are the "product of the effort to bring coherence to data by linking bits of evidence in meaningful ways" (Ragin 1994: 68). They consist of empirically based interpretations of a social phenomenon. An example image is "professional socialization' as the mechanism behind shared values and common practices amongst medical specialists in a profession [2]. This all reminds that between deduction and induction, the dual research tracks distinguished in the TRANSIT research design, there is *retroduction*: the identification of conditions for an observed phenomenon (an action or event) to be possible. In TRANSIT we do not want to separate necessary conditions from contingency circumstances (with the help of set-theoretic analysis), but we do want to investigate generative mechanisms behind events and phenomena. The general procedure of retroduction in social science research according to Ragin is visualised below.



Source: Juliane Hartig, p. 162 (redrawn from Ragin, 1994, p. 57)

[2] In any research, theory and data have to be brought into a fruitful interaction with each other: "The challenge of social research is to construct powerful and instructive representations of social life that contribute to the ongoing conversations about social life called social theory and at the same time embrace a breadth or depth of evidence about social Life in a systematic way." This challenge can be met by building a dialogue of ideas and evidence-analytic frames and evidence-based images-into social research process" (Ragin, 1994, p. 76).

3) Relational-complex ontology. TRANSIT, from its early inception, operates from the understanding that TSI theory development can rely on the complex systems-theoretical strengths of transitions theory – yet also should avoid the trap of premature assumptions about the reality of 'regimes', 'niches', 'landscapes' and related distinctions of societal subsystems. On the one hand there is the basic assumption that SI-initiatives can only manifest transformative developments in co-evolution, on the other hand there is an awareness that SI, as a fundamentally dispersed phenomenon, is not easily attributed to distinct entities [3] and mechanisms (such as selection, variation, retention). This tension between system-evolutionary explanation and relational description (as discussed in Geels 2010, Jørgensen 2012, and Garud and Gehmann 2012, amongst others) is an important background to TSI theory development (cf. Pel & Bauler 2014b). The term 'relation' refers to the (dialectic) relationship between actors and the dynamic processes of change and development, and not just to relations between actors (Boggs and Rantisi, 2003): actors and networks, innovations and changes are mutually defined. An important characteristic of the relational ontology is that it describes "realities that become", rather than existing facts, which makes it particularly pertinent to processes of innovation. Stability is accounted for through notions of obduracy, structuration and institutionalization, but change is primary. In line with this relational ontology, this 'first prototype theory' brings forward 'framings', 'conceptualizations' and 'propositions', and posits 'theory' sparingly. This reflects the relational caution against premature assumptions of systems and entities.

4) Process theory for empowerment. As described earlier in Jørgensen et al. (2015:8-10), TRANSIT is committed to developing a TSI theory that not only helps to understand and explain societal co-evolution processes from a distance, but also empowers situated SI agents. Arguably, this also requires the theory to account for the great empirical variety in, and the dynamic behaviours of, the contexts in which SI-actors seek to achieve their goals. Moreover, the theory is to account for the fact that actors tend to operate in dynamic environments: TSI theory is to provide a process understanding, without which its practical relevance would be limited (Geels & Schot 2010, see also Pollitt 2015). There are many types of process theory (see D4.2 and D5.1) but all are distinct from variance theory. Process theory is interested in discovering patterns in sequences of events, variance theory in explaining observed outcomes with the help of explanatory variables. "Whereas variance theories provide explanations for phenomena in terms of relationships among dependent and independent variables (e.g., more of X and more of Y produce more of Z), process theories provide explanations in terms of the sequence of events leading to an outcome (e.g., do A and then B to get C)" (Langley, 1999, p. 692). Considering that TRANSIT is likewise interested more in patterns, phases and turning points than in causes and factors (Cf. Pel & Bauler 2014), it becomes understandable why this 'first prototype theory' takes the shape of a set of conceptual building blocks, and tentative propositions about patterns, typologies and phases. Likewise, our diverse theoretical resources like actor network theory, structuration theory, institutional theory, the multilevel perspective on transitions, social psychology can be considered as bringing forward different perspectives on TSI processes.

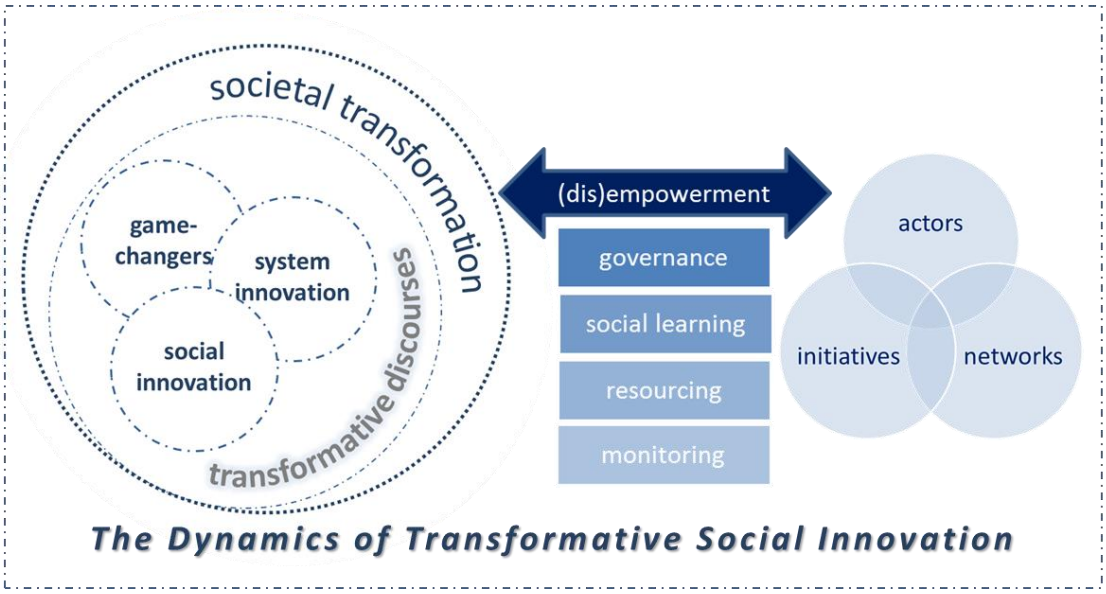
[3] "The basic contention of a relational ontology is simply that the relations between entities are ontologically more fundamental than the entities themselves. This contrasts with substantivist ontology in which entities are ontologically primary and relations ontologically derivative" (Wildman, 2006).

2 A framework for transformative social innovation (TSI)

2.1 Introduction

The development of a conceptual framing during the first months of the TRANSIT project led to the creation of a conceptual heuristic (see Avelino et al 2014) that served as a starting point in developing the framework for TSI presented here. It makes a distinction between five different 'shades of change and innovation': 1) social innovation, (2) system innovation, (3) game-changers, (4) narratives of change and (5) societal transformation. The heuristic provided a starting point, and a first iteration of a cognitive map to empirically and conceptually investigate the central research question (of the TRANSIT project): ***how does social innovation interact with other forms of change and innovation, and how are actors (dis)empowered therein?*** The conceptual heuristic is depicted in figure 1 below. The figure is intended to imply a particular hypothesis that societal transformation is shaped and produced by particular patterns of interaction between social innovation, system innovation, game-changers and narratives of change. Individual actors, initiatives and networks, are empowered (or disempowered) to contribute to this process through different forms of governance, social learning, resourcing, and monitoring (Haxeltine et al. 2013). It conceptualises transformative change as involving recursive interactions between these elements constellated around specific societal challenges and change processes. In this deliverable (D3.2) we present the next steps in the theory development that have resulted in the framework for TSI presented here. It has been developed building on a comparison with the findings of the first batch of empirical case studies through a first Theoretical Integration Workshop (TIW). In chapter 3 we present (a draft of) a new cognitive map for the next phase of the research, based on the framework for TSI presented here.

Figure 1. Conceptual Heuristic to Explore the Dynamics of Transformative Social Innovation.



The multi-level perspective (MLP) was used as part of the conceptual framing of social innovation (SI) and transformative change in the original TRANSIT research proposal but with a stated ambition to also develop new approaches in develop a TSI theory (Haxeltine et al 2013). The multi-level perspective (MLP) has had a dominant influence within the emerging field of transitions studies (Smith et al 2010; Markard et al 2012) and in developing a framework for researching transformative social innovation we saw the potential to build upon the consortium's expertise in transitions studies and develop a new approach, specifically tailored to explaining the role of social innovation in transformative change.

Since our initial development of the '5 shades of innovation' framing (as set out in figure 1) we have conducted a series of theoretical reviews of existing theory (that we consider might inform the development of a TSI theory) and also further developed our understanding of transformative and systemic change on the one hand while also reviewing the current literature on social innovation and developing a new approach to conceptualising social innovation on the other hand. The framework for TSI presented below brings this work together to present a theoretically-grounded framework for explaining the dynamics of TSI.

In developing a bespoke framework for TSI, we found it helpful to reflect on the genesis of the MLP that arguably be traced back to an attempt to combine (1) evolutionary economics, (2) social studies of technology/ANT, and (3) narrative approaches (with the 1987 paper by Henk van den belt and Arie Rip being cited by Jan-Peter Voss as one of the earliest attempts to do this). The logic of the 'levels' defined in the MLP is that they imply different kinds of structuration of activities in local practices (Geels 2005). The MLP was originally developed to understand regime shifts in 'technological regimes' (Geels 2005), with the concept of the 'technological regime' coming originally from Nelson and Winter (1977, 1982) and evolutionary economics - it was developed to explain the occurrence of technical trajectories. It is usually defined in terms of a 'grammar' or a 'rule-set' (Rip and Kemp 1998: 340) which as Geels (2005) points out is a sociological concept that is wider than 'routines'. In complex systems terms, the MLP identifies the relevant scale-levels required to resolve the dynamics of a process of technological regime shift. Thus if we 'zoom out' our focus to reflect on what the MLP actually does, we can see how it represents an attempt to bring together several differing strands of theoretical work combined with a heuristic that provides a way to resolve the relevant scale (or cross-scale relationships) at which the empirical phenomena being studied occurs.

Two insights that emerged from the first year of work in the TRANSIT project were firstly that the development of TSI theory similarly represents an activity of bringing together several existing theoretical approaches – including in broad terms a relational approach, an evolutionary approach and a narrative approach. Each has a specific contribution to make within an overall framework for TSI. The second insight was that understanding scale is key, and particularly that we need appropriate theoretical resources to resolve the cross-scale relationships inherent in TSI dynamics. The framework for TSI needs to address not only scale but also how scale relationships (in the social context) are transformed during processes of transformative change, and what is the reflexive agency of social innovation actors in such changing scale relationships.

Accordingly, the following core theoretical framing was conceived of as a basis for developing the (first iteration/prototype of) framework for TSI presented in this document:

> **Firstly, we develop a relational framing of social innovation,** drawing upon insights from the social studies of technology and established relational approaches such as Actor-Network Theory (ANT). Ontologically and epistemologically, we ground the framework in a relational-coproductive framing, which understands social reality as inherently intertwined and mutually constructed, thus: "the ways in which we know the world (both nature and society) are inseparable from the ways in which we choose to live in it" (Jasanoff 2004:2). Adopting such a relational framing is key to the framework for TSI, because it is only by acknowledging and being open to the ways in which the social context is intertwined and mutually constructed that we can observe and theorise the full range of ways that social innovation can engage with processes of transformative change.
>
> **Secondly, we develop a coevolutionary framing of transformative change** and of the role of social innovation in transformative change. Similarly to the MLP, and drawing upon our expertise in transition studies, we adopt the use of a coevolutionary framing to describe how different elements (or sub-systems) in the social context interact in processes of transformative change. We conceptualise coevolutionary processes of interactions between elements that mutually influence each other but are also independent of each other. This allows us to describe transformative change in terms of a coevolutionary dynamic between SI and the social context, and ultimately to develop forward-looking description of coevolutionary pathways of transformative social innovation.

The framework for TSI is thus *informed* by complex systems, transition studies and evolutionary economics, but is also *grounded in* a relational ontology. We therefore use the term coevolution in a less restrictive way than some authors to describe developments in different parts-elements of the social context that are *both* interlinked *and* partially independent. We also use the terms coproduction and coevolution, in similar but quite distinct ways. Coevolution is used to describe a dynamic at the scale level of transformative change processes, that involves interaction and mutual influence between identifiable elements in the social context, while coproduction is used to describe the ways in which these 'elements' of the social context are ultimately co-constructed through the mutual interactions and relations of social actors. Thus the framework for TSI develops a relational framing to (re-)conceptualise what social innovation is, what is its function, and how it interacts with the social context.

The remainder of this chapter is structured as follows. Section 2.2 presents a brief outline of a relational framing of SI. Section 2.3 proceeds with some 'working definitions' for SI, SI-initiatives and SI-networks. Section 2.4 conceptualises how SI takes place in a social context. Section 2.5 presents working definitions of transformative change, transformative social innovation (TSI) and related concepts. Section 2.6 presents working definitions on narratives of change and theories of change. Section 2.7 presents some speculative and preliminary pathways for TSI. Section 2.8 addresses the role of agency in the dynamics of TSI. Section 2.9 describes how we make use of further theoretical resources or 'building blocks' in developing the framework for TSI (with reference to Annex 2 that provides a discussion of selected theoretical resources and links to reports from a first set of theoretical reviews).

2.2 A relational framing of social innovation

Within the framework for TSI, the 'social' in social innovation refers both to the means or process and the ends of the social innovation. Social innovation processes involve different types of actors interacting together in groups, networks and other organisational forms to reproduce current social 'forms' and 'patterns' and to also 'innovate' new ones. This section outlines a relational-coproductive framing of social innovation. Subsequent sections of this deliverable also bring in the concept of coevolution. The ambition here is that this initial version/prototype of a framework for TSI is *generative* of a constructive theoretical dialogue and exploration of the tensions between system-evolutionary explanations and relational explanations of the phenomena of social innovation and transformative social change.

Under a relational-coproductive perspective social innovations are not defined only in terms of social practices (as suggested in the working definition of social innovation used in our initial framing for the TRANSIT project, see e.g. Avelino et al. 2014) but rather social relations and the changes in social relations brought about by a social innovation are emphasised as primary. Social innovation initiatives include 'practices' as an important mode (or aspect) of 'doing', but are also comprised of other 'things' and other distinctive 'activities'.

As discussed elsewhere in this document, we are interested in TRANSIT in transformative change and broad 'societal transformations' but we adopt a relational ontology in developing the framework for TSI and this implies that instead of society being understood of as a 'social system' it is rather the sum-total of all socio-material relations or 'entanglements' – and we use the term social context to describe this; in fact this term is used as a short-hand for 'socio-material context' as we also include ecological relations and physical structures and artefacts. A social innovation is not separate from this social context – rather a social innovation exists in a dialectic relationship with the social context. It both acts on the social context and is produced by it. It may have a degree of autonomy from the social context however (a theme that is developed elsewhere in this document).

The social relations that constitute a SI-initiative will be productive in a range of different ways, or we could say in a range of different dimensions. Different social science disciplines have different interests and foci in relation to these different dimensions. In our initial work in the TRANSIT project, we identified the following tentative list of dimensions (of a SI-initiative):

- Organization: system of responsibilities, legal form of companies, task distribution, internal and external relationships
- Scale of operation and nature of activities
- Basic values and beliefs: the system of values and beliefs and associated criteria
- Practices
- Identities (related to values, beliefs and practices) reflected in stories and metaphors of what the social initiative is about
- Standards for conduct
- Power of the respective actors: "power to" and "power over"

There are many definitions of social innovation both in the research literature and policy literature, and these can be understood as differing to the extent that they emphasise or omit different dimensions of social innovation. So in developing a definition of SI we can start by identifying a suitable framing of a set of dimensions for describing both the activity of a social innovation and the 'things' that it engages with in the 'social context'.

Chilvers and Longhurst (2015) offer an alternative relational coproductive framing of the interactions between social innovations and their social context. This approach provides a simple framing of just four 'top-level' dimensions: organizing (modes of organisation), knowing (the production of knowledge), doing (practices, activities), and framing (cognitive framings/models/worldviews). This provides a convenient way to think about the different types of activity that social innovations are engaged with and their relations to the social context. Social innovations are understood as being productive in each of these four dimensions but the collective context also acts upon social innovations in each of these dimensions (see figure 2).

Social Practice Theory (SPT) offers an alternative relational ontology to the one presented here and that is implicit in the 'four petals' diagram (figure 1); it is one that situates social practices as the principle object of enquiry and at the centre of social existence. SPT would therefore conceive of SI-processes as an attempt by a particular group of practitioners to engage in a form of SI practice to intentionally intervene in the dynamics of a wider range of practices undertaken by a range of other practitioners. The insights of SPT and the SPT approach thus provide a different ontological framing of what social innovation is, and what it does, and one that is highly relevant to our ongoing research in TRANSIT (a further discussion of SPT and TSI is provided in the theoretical review in Annex 2 of this deliverable D3.2).

In a relational-coproductive perspective social innovations are viewed as heterogeneous sociomaterial collectives comprising human and non-human elements, mutually constituted through the interweaving of the cognitive, the material, the social and the normative. In particular the relational-coproductive approach emphasises all social innovations as being made up of, shaped by, and producing:

- ***meanings/framings*** (issue definitions, visions, imaginaries, often expressed in the form of discursive commitments);
- ***doings/material commitments*** (through the performance of practices, technologies, and so on);
- ***modes of governing/organising*** (i.e. the specific way in which any given collective of social innovation is configured, organised and governed);
- ***knowings*** (knowledge, cognitive resources, competencies, forms of appraisal).

Social innovations are the understood as being active across all four of these dimensions. Box 1 provides an illustration of the sorts of specific activities that are observed, for SI-initiatives, in each of these four dimensions. A particular social innovation will likely be 'productive' in each of these four dimensions but will not necessarily be 'innovative' in each dimension. A relational framing of social innovation therefore provides a potentially fruitful approach for understanding the entanglement's between social innovations and the wider social context. Some further specificities of this particular theoretical approach are elaborated in the next section (see also the theoretical review on relational approaches in Annex 2 of this deliverable D3.2).

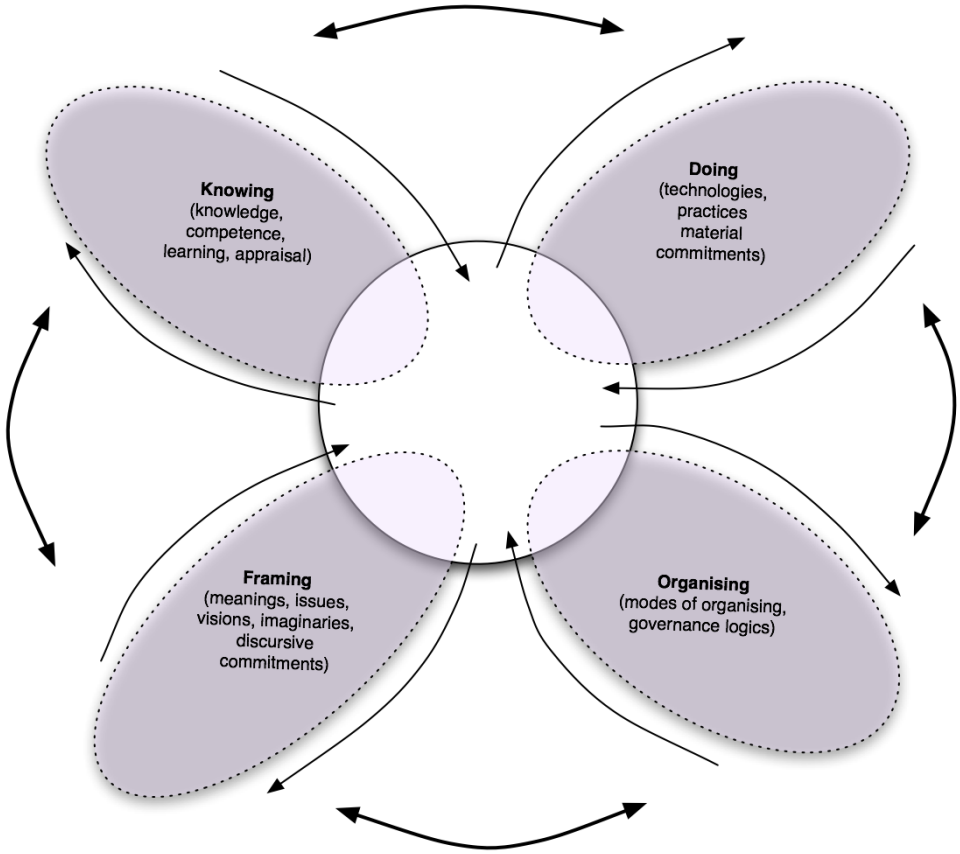


Figure 2: Four aggregate dimensions for resolving the make-up of a social innovation (adapted from Chilvers and Longhurst 2015)

Developing a relational framing of Social Innovation

As noted above, a relational framing of social innovation emphasizes the embedded and context specific nature of how and why a social innovation may take a certain form at a certain time and place. In emphasizes how activity is produced through social connections:

> "Social things organized in configurations, where they hang together, determine one another via their connections, as combined both exert effects on other configurations of things and are transformed through the action of other configurations and therewith constitute the setting and medium of human action, interaction, and coexistence." (Schatzki 2002)

A social innovation can therefore be understood as a 'collective' of different elements: humans, objects, forms of knowledge, rules, practices etc. To some extent this collective coheres into a recognisable object, but it is also constituted by a set of relations to other collectives. In this way the 'social context' can be understood as a multiplicity of collectives and configurations which are in many ways stabilized into more durable forms of relation but are also fragile and open to change and emergence.

Box 1: Social innovation activity in terms of: knowing, doing, organising and framing.

Knowing

- Production of knowledge both as a product and to support the strategy and activities of a SI, including: research (both academic and applied); websites, blogs, and other social media; operating and training manuals; and, expositions of generative paradigms (e.g. in the form of an article, book or TED talk by an inspiring leader in the social innovation initiative…).
- Learning processes and the development and maintaining of competence.
- Monitoring, appraisal and evaluation.

Doing

- Practices: SIs are constantly created and maintained through the practices and doings of the actors involved - the SI as 'entity' is continually (re-)created through the performance of SI.
- The performance of SI effects socio-material configurations. The ways in which SIs deploy resources can be understood as a distinct form of *material commitment* to a particular configuration of the system in question. The production of new elements then may be expected to be associated with a shift in commitments on the part of the SI initiative.
- 'Doing' as understood in a relational framing involves the use of technologies and material commitments. It is recognised that all SIs will involve technology and that many will also involve aspects of technological innovation as well as 'social' innovation.
- Strategy development and implementation of strategies to 'grow' or 'scale' the SI and to both adapt to and seek to influence change (transformation) processes.
- 'Power' of the respective actors and the collective: "power to" and "power over".

Organizing

- Ongoing work is necessary to 'hold it together'. SIs are not only subject to organisation in relation to their own internal coherence but also in relation to other collectives
- Organization: system of responsibilities, legal form of companies, task distribution, internal and external relationships.
- Scale of operation and nature of activities.
- Standards for conduct.
- Governance of social innovation and 'logics' of governance.

Framing

- Basic values and beliefs: the system of values and beliefs and associated criteria.
- Identities (related to values, beliefs and practices) reflected in stories and metaphors of what the social initiative is about.
- Meanings, issues, visions, imaginaries, and discursive commitments.
- Frames and framing processes; framings of the 'power' relations of the respective actors

The relations between actors in a SI develop over time and space and work is usually required to hold them together. The concept of *intermediaries*, can be invoked to conceptualise how SIs are held together, these: "can be anything that passes between and within collectives which hold them together…. which defines a relationship between them. Examples include – scientific articles, computer software, disciplined human bodies, technical artefacts, instruments, contracts and money (Callon 1991). Intermediaries often constitute forms of exchange: flows of resources, knowledge, energy etc. Some intermediaries are forms of enunciation; statements and signs that allow different elements to communicate with each other (Irwin and Michaels, 2003)."

SIs can remain as situated configurations - as localised, experiential or ephemeral experiments. Yet they can also become inscribed, made portable and circulate to be replicated at different sites. A relational-coproductive perspective would understand this growth of a SI in terms of dispersal and expansion (rather than 'scaling up'). It would take the form of similar situated collective configurations of SI becoming connected up and standardised trans-locally and/or transnationally across multiple different sites in space and time. They become to some extent stabilised in zones of prescription – or 'technological zones' (Barry, 2006). These zones are forms of arrangement that have a stability that is created by the connections and circulations that can occur through the role of inscriptions and intermediaries including the reification of specific configurations and designs of SI through technologies, blueprints, instruments, and practices; through experts/innovators themselves; and through infrastructures, institutions, and discourses. A relational-coproductive approach foregrounds the work that is required to replicate particular configurations of SI in other contexts.

In contrast to the durability of zones of prescription, there are arrangements where any given SI will jostle and compete with other SIs, other forms of innovation, and other collective formations to gain relevance in framing the issue at stake (like in an 'issue space' or controversy context: Whatmore, 2009; Marres, 2007, 2012) or in modulating trajectories of sociotechnical change (cf. arenas of development: Jørgensen and Sørensen, 2002; Jørgensen, 2012). We would conceptualise these as *spaces of negotiation* or *arenas,* which can be understood as providing a context within which certain SIs may interact with other collectives and compete or contest. We hypothesise that such arenas provide a focus for co-evolutionary dynamics and it will be interesting in TRANSIT to empirically explore how arenas are operating for SIs and to further conceptualise them on that basis.

Finally, collectives and the various zones and arenas in which they are entangled are part of what constitutes a higher level of aggregation and complexity: an *assemblage*. Any given social innovation is likely to be constituted by (and constitute) multiple assemblages. In some cases they resemble what might be otherwise known as 'systems' or 'sectors' but the terminology used here is intended to stress the way in which agency is distributed and the constant tension between stability and emergence. Any given assemblage is characterised at any given moment by its constitutional relations between citizens (civil society), science, the market, and the state (cf. Jasanoff, 2011). This is defined by the relational configuration of all collective elements that make up the assemblage, which is held together and made durable by collectivities like

infrastructures, laws, regulations, socio-technical imaginaries, scientific artefacts, political cultures, establishes social practices, democratic procedures and so on. While being highly durable and exhibiting stabilities it is continually in flux, subject to continual emergence of sociotechnical collectives (like forms of SI), the performance of which is both powerfully shaped by, and in turns acts on, this extant order. Change over time is understood as the emergence, expansion or contraction of sociotechnical collectives (including SIs) and reconfigurations in the constitutional relations between all collectives make up the wider constitution as assemblage.

This perspective also highlights the importance of political culture in understanding why some SIs and SI-initiatives/networks can become established, credible and authoritative in certain countries and cultural- political settings and not others. By political culture we mean the systematic and routinized ways in which a political community validates knowledge and makes binding collective choices (Jasanoff, 2005). These collective forms of public reason and entrenched cultural expectations grounded in public life can help explain how some forms of SI become established and others struggle to achieve relevance or become endangered in particular settings. Figure 3 provides a visual representation of this.

A relational framing implies a distributed understanding of agency: "human actors are able to exercise agency, but it is an effect of the socio-material networks within which they are entangled. Agency is therefore fundamentally distributed, and a relational effect of the configurations within and between different collectives. (Chilvers and Longhurst 2015).

In addition to the fact that agency is distributed, processes of cognition are also understood as being distributed: "Knowledge relating to the operation of any given system is shared amongst a range of different human actors and collectives, with no single view of the system from the outside (Smith and Stirling 2007). This emphasis on the partiality and dissonance between competing insider ontologies extends to academics ad researchers who are themselves implicated in multiple collectives and themselves have situated and partial constructions of the system." (Chilvers and Longhurst 2014). A relational framing also leads to an emphasis of the performative nature of social innovation: "The agency of collectives, and thus the 'trajectories' of wider configurations can be understood as a temporally *emergent* phenomena (Pickering 1995, 14). Socio-technical systems are always 'in the making'. As Bijker and Law (1992) suggest, sociotechnical change is always the emergent outcome of multiple strategies of multiple actors. This then is a process of *path creation* (as opposed to path dependence) where actors shape an unfolding process in real-time, and where no single actor can fully shape the emergent ecology of socio-material entanglements (Garud and Karnoe 2010)." (Chilvers and Longhurst 2014)

We can now further understand SI as resulting in a new content in any one of the dimensions of: knowings, doings, organisings and framings. This provides us with a simple structure for talking about how SIs may influence the social context. Note then that SI may be "socially innovative" only in a single dimension, but will usually be 'productive' (active) across all four dimensions.

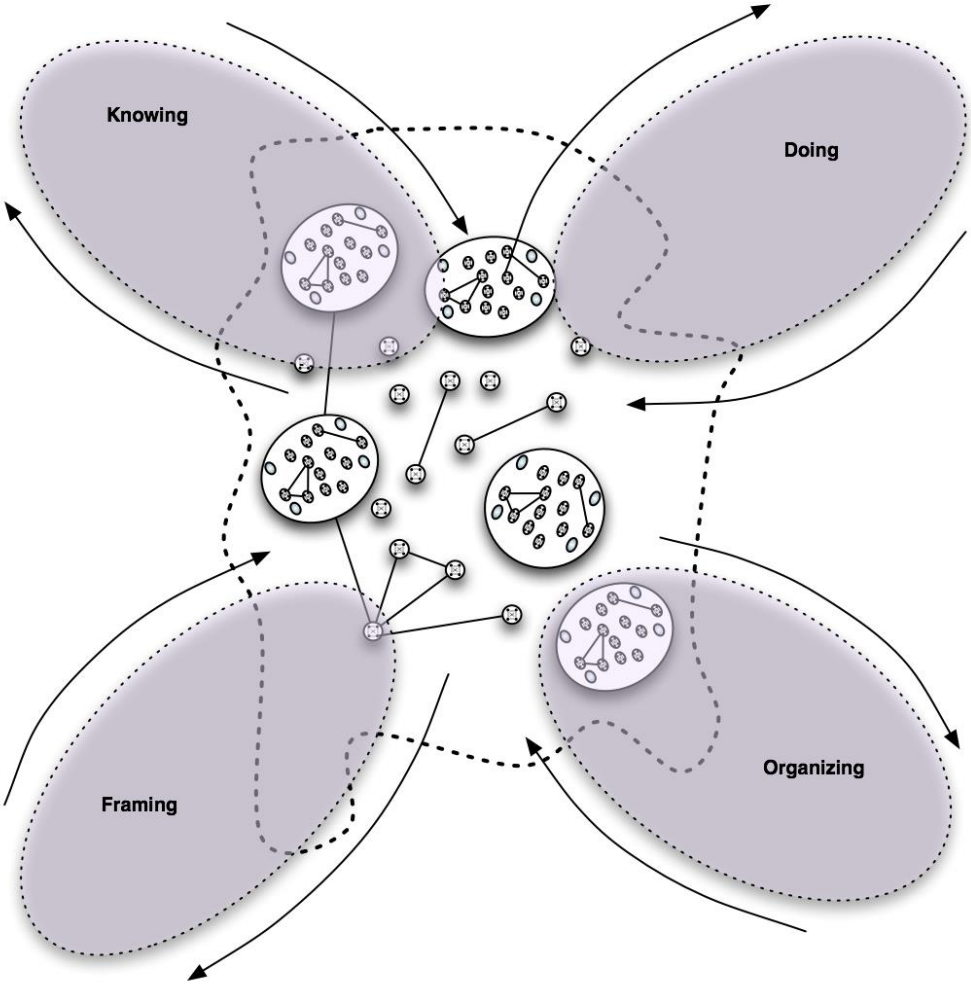


Figure 3: The 'systemic' context in which social innovations are situated

In TRANSIT, we do not define SI as necessarily having 'desirable' outcomes for society - the impacts of a particular SI may be both 'desirable' and/or 'negative', in different ways at different scales and to different observers. We agree with Cajaiba-Santana (2014: 44) that: "Social innovation has been frequently presented as a normative instrument used to resolve social problems through the creation of new services or new products …. This view is in part explained by the fact that the contexts in which social innovation has been evolving (social entrepreneurship … and public policy …) are based on actions aimed at solving social problems. However, presenting social innovation based on such instrumental view is a teleological mistake: the assumption that because we see a particular outcome to a process we conclude that the process must always have that specific result." (Cajaiba-Santana 2014: 44)

So the purposes of SI are diverse and are a product of the framings and strategies of SI actors on the one hand, and of the wider SI policy discourse (or SI field, see below) on the other hand. Many permutations are possible – a SI may have normative ambitions to make society better in some way and succeed in this, but it may also end up being associated with unintended consequences that have deleterious effects. We also conceptualise the possibility a 'dark side'

or 'shadow side' of SI (which will always be a normative judgement in itself). So while many SIs may have altruistic goals some (such as organised crime and narcotics networks) may bring about SIs that are arguably damaging to society. Other innovations in social practice, say the practices of illegally tapping electricity supplies in Favelas in Latin American countries may be viewed as wrong by some (electricity companies) but as a normalised practice by others. So we should simply be open to the fact there may be a multiplicity of interpretations by different actors and (political) contestation of the purpose, meaning, and impact of a particular SI.

One strength of relational coproductive approach is that it emphases the normativities which are present in all forms of SI. As it moves towards coherence the SI as collective closes down on the four above dimensions. All forms of SI are thus productive in performing/producing knowledge, visions, material commitments (including through practices), and forms of social organisation. As noted above relational approaches are concerned with the political struggles involved in these moves towards coherence: what gets excluded, possible alternatives, and the forms of resistance that occur. This pays attention to the ways in which SIs are constructed and framed, and the politics and exclusions associated with this, which has important implications for questions of empowerment and social learning (see Chilvers and Longhurst, 2013). This level of analysis raises questions about what is the object(s)/purpose(s) of a given SI, revealing them to be multiple, ambiguous, contested, and framed by actors in different ways.

To follow these interpretive insights through would suggest that to be transformative SIs would need to reflexively attend to these dimensions in a deliberate way. This is a feature of transformative SI that might be missed out based on other theoretical perspectives. For example, rather than conceal the exclusions and framing effects, 'reflection in action' would be open about the particular normativities – of democracy, progress, directionality of social change, etc. – that are produced and the alternatives that are closed down in emergent SIs. In addition, rather than assume that SIs are inherently socially shaped in the needs of society, the extent to which they account for plural public interests would become a source of continual reflection; rather than assume that SIs will unproblematically bring about social goods and positive transformations the (unintended) consequences and implications of SIs should also be explored.

The consequence of this is that a relational-coproductive approach would suggest 'transformative' SI depends on more deliberately radical forms of reflexivity. Reflexivity acknowledges that the mutual shaping of the subject (an actor or collective situated within the system) and object (the object of innovation/intervention) should be open to deliberate reflection, including attention to uncertainties/indeterminacies, exclusions and overflows, dynamics of coproduction (power and politics) in shaping collectives and systems. It requires critical evaluation of the assumptions and conditions that frame one's own knowledge-commitments and in relation to those of others (Wynne, 1993; Stirling, 2006; Chilvers, 2013). Transformative SI beyond social subsystems would need to encourage reflexivity not just within individuals or institutions or at specific sites in systems (although this is no doubt important, particularly on the part of incumbent institutions and centres of power and calculation), but also in a more 'thoroughgoing', distributed and systemic sense.

2.3 Social innovation, SI-initiatives and SI-networks

Departing from this relational framing of social innovation, some further clarifications and revised 'working definitions' of key terms and concepts were developed, starting with the definitions of Social Innovation, SI-initiative and SI-network. The framework for TSI makes a careful distinction between the phenomena of social innovation itself and the actors and organisations that create and further social innovation. The distinction is clarified in the following 'working definitions':

Social Innovation = A change in social relations, involving new ways of doing, organising, framing and/or knowing. Objects of social innovation can be Ideas, objects and/or activities. These are 'socially innovative' – and can thus be referred to as 'social innovations' - to the extent that they imply/demonstrate a change in social relations (necessary condition) associated with new ways (or co-productive combinations) of doing, organising, framing and knowing.

SI-initiative = Collective of actors that (aims to) work on ideas, objects and/or activities that are socially innovative.

SI-network = A network of collectives of actors that (aims to) work on ideas, objects and/or activities that are socially innovative.

The next section provides a short discussion of how we arrived at this position.

Conceptualising social innovation in terms of changing social relations

In our initial work in the TRANSIT project (see WP3 deliverable D3.1 and e.g. the 'game changers paper' Avelino et al., 2014), social innovation was conceptualised as *new social practices, comprising new ideas, models, rules, social relations and/or services*. This definition was in line with much of the existing literature on social innovation[4].

Other definitions, in the existing literature on social innovation, more strongly emphasise social relations and social values: Moulaert et al. (2013: 2) for example define social innovation in terms of "innovation in social relations, structures of governance, greater collective empowerment, and so on". While another definition of social innovation that is finding very widespread use at the present time is: "innovations that are social in both their ends and their means" (originally attributed to a joint report of the European Union / The Young Foundation 2010). While there are reasons why we would not want to simply adopt this latter definition, it does serve to highlight a view that a social innovation not only serves functional goals but also

[4] In particular Franz et al. (2012:4) who argue that the "decisive characteristic of social innovation" lies in the "fact that people do things differently due to this innovation, alone or together. What changes with social innovation is social practice, the way how people decide, act and behave, alone or together" (Franz et al. 2012:5, cf. Howaldt & Kopp 2012). These changing social practices include changing roles, relations, norms and values (ibid, cf. Hochgerner 2012). Howaldt & Kopp (2012:47) define social innovation as "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". (From: Avelino et al., 2014 paper on game changers).

goals based on human values and social impact. Values is used here in a double sense: "values" as the ethical and ideological foundation of human interaction and "value" based outcome according to a calculation scheme of value. Both the outcome and the way towards it have positive value for those involved in it. The double value element appears to hold true for the TRANSIT cases studied. Examples of foundational human values are self-autonomy, participation in decision making, values of sharing and solidarity and (belief-based) values of making the world a better place. An important definitional issue is *whether or not to make the human value element part of the definition or not*. So far, we haven't made this a definitional element, which means that all changes in social practices based on "a new idea, model, rule, social relationship and/or service" count as a social innovation, including those which do not challenge authority and foundational principles. If we bring values into the definition, we should accept that the values can be anything: from common property to the expansion of private property to ideological positions of the state withdrawing itself from the personal sphere and economic sphere.

A key decision was that *social relations* should be central to how we conceptualise social innovation in the framework for TSI; thus emphasising the view that social innovation refers to new social relations that can be associated with new productive activities aimed at satisfying one's needs and those of others. But also that the 'innovation' may be in terms of social relations, irrespective of whether or not they are productive in instrumental terms.

Following the relational framing developed in the preceding section, we define a conceptual framing for resolving the different dimensions of productive activity of a social innovation in terms of: Knowing, Doing, Organizing, and Framing. Furthermore, the things that are done differently as a result of the social innovation may relate to activities in any of these four dimensions. This may include new business models, new rules, new services, or even new products… In all cases what is 'socially innovative', refers to the extent to which there is:

a) new ideas, knowledge and learning, and/or
b) new practices (incl. new products or services) and/or
c) new social relations and ways-of-organising, and/or
d) new 'framings, new mental models or generative paradigms.

A SI-initiative manifests as complex social relations that are co-productive in each of these dimensions. Activities in each of these dimensions also co-produce each other: forms of knowledge; frames, modes of organizing, and ways of doing things are all shaped co-productively.

We can also note that some social initiatives may self-identify as social innovations while others will not use the term; furthermore not all initiatives that self-identify as social innovations will demonstrate innovation in one or more of these dimensions. In TRANSIT, we do not define social innovation as necessarily having 'desirable' outcomes for society (as is arguably the case in e.g. the BEPA report, 2010) the impacts of a particular social innovation may be both 'desirable' and/or 'negative', in different ways at different scales and to different observers (and analysts).

The importance of cross-network interactions: SI 'clusters' and 'fields'

The concepts of a social innovation 'cluster' and 'field' are also developed and used to describe social relations, interactions and joint activities that occur *across* multiple SI-initiatives/networks (cross-network interactions). A need for a distinction between the two terms is made based on observations made in the batch I cases, where smaller and less formal 'clusters' of cross-network interactions were observed as well as larger, more substantial, more 'context-wide' and (sometimes) more formal and/or sustained cross-networks interactions.

In TRANSIT, we are interested in the ways in which such Interactions across SI-networks are important to understanding and explaining the observed dynamics of transformative social innovation. Interactions across SI-networks are understood as co-productive social relations involving knowing (incl. learning), doing (incl. resourcing), organizing (incl. governing), and framing (incl. narratives of change). Following the distinction made between SIs and SI-initiatives/networks we are interested in how clusters of SI-initiatives may work to develop and promote a particular SI and/or how clusters may work to promote complementary SIs and/or how competition and contestation between SI-networks might also be important in TSI dynamics. Cross-network interactions are understood as having both formal aspects (such as associations and formal modes of networking and collaboration) as well as informal aspects (such as interactions among participants or the fact that many participants are active in multiple social innovations). In TRANSIT we are interested to explore how such cross-network interactions can increase (or create synergies in) the agency of social innovation.

A key piece of feedback from the first meeting with the TRANSIT International Advisory Board was that the TRANSIT project should develop a: "better articulation of the institutional settings and architecture which appear to advance and nurture social innovation as well as TSI." They suggested that we need to develop an analysis of: "just what conditions are most suitable for incubating and advancing SI/TSI. And indeed what aspects of current institutional arrangements impede and weaken innovation on these arenas." An important research task in further developing and empirically-grounding the framework for TSI then will be to address these questions through an evaluative study of the extent to which a coherent 'SI field' can be understood as emergent/existent in Europe today (and possibly also extending to selected LA countries) and an exploration of the relations to current institutional arrangements. This study will also map the historical emergence of the SI-field as well as its contemporary make-up and ongoing dynamic, including discourse coalitions that have emerged around social innovation. The study will start from the 'relational' idea that it is not possible to really understand how a constellation of networks or a 'field' has become stabilised over time and space without understanding the wider historical context of its emergence. And that developing such an understanding of the field is therefore important to addressing the question of "what conditions are most suitable for incubating and advancing SI/TSI" with the understanding that 'conditions' may cover regulations, policies, economic constraints but also material and social factors as well as cultural values and beliefs. In this study we will pay particular attention to how significant actors understand, relate to, and frame transformation and systemic change and how these notions become inscribed into practices, institutions and discourses.

2.4 Social innovation takes place in a social context

Social innovation is understood as taking place in a social context. This section provides some clarifications and revised 'working definitions' of what is understood by the concept of social context and by the concepts of institutions and structures:

Social context = The set of relevant contextual factors that SI takes place in and that a SI-initiative must operate within, including i) established institutions and structures, ii) actors and networks (with which the SI-initiative has relations), and iii) the broad societal framework conditions. Note that the term social context is used here (as opposed to 'social system') as the framework is based on a relational ontology and not a systems ontology. The importance of socio-material relations including physical infrastructure, artefacts and social-ecological relationships is acknowledged and so 'social context' is a short-hand for socio-material context.

Established (and/or dominant) institutions = both formal and informal institutions (as norms, rules, conventions and values; cf. Cajaiba-Santana 2014, p46) that constrain and enable social relations and established patterns of doing, organising, framing and knowing. The co-productive relations of SI-initiatives/networks operating in a social context can be understood (following a structuration perspective) as both reproducing established institutions as well as being constrained/enabled by them (and also, to the extent that they are 'socially innovative' working to challenge, alter and/or replace them).

The next sections provide a short discussion of how we arrived at this position.

Characterising the social context

In TRANSIT we are interested in 'society' and broad processes of 'societal transformation' but in developing the framework we develop the concepts of social context and transformative change. Transformative change is understood as change in the social context and is discussed in section 2.5, here we first discuss how the framework for TSI conceptualises a social context.

A social context is understood as the totality of the actors and social 'relations' (and socio-material relations), as well as the institutions (as norms, rules, conventions and values; cf. Cajaiba-Santana 2014, p46) which a social innovation interacts with (intersects with) and the broad societal framework conditions (cf. work of Rolf Reisig).

We use the concept of 'social context' in a somewhat similar way to e.g. how the work of Frances Westley et al. use the concept of 'social system' but in adopting a relational framing we move away from a notion of social system and use social context instead. In a similar way to the work of Frances Westley a structuration perspective is implicit in how we conceptualise the social context – so the institutions and structures of the social context define and constrain the behaviour of actors and organisations, but actors and organisations are also able to exert agency and act to challenge, alter or replace establishment institutions and structures.

The arrow of influence does not go in one direction but in two directions. Social innovation will undergo change as a result of voluntary interactions with new partners (such as social impact investors) and because of specific demands imposed upon them by government and judges through legal rulings. Social innovation projects will also be affected by broader processes of cultural change entering SI projects. A simple visualisation of the interaction between social innovation and the social context is given in Figure 4.

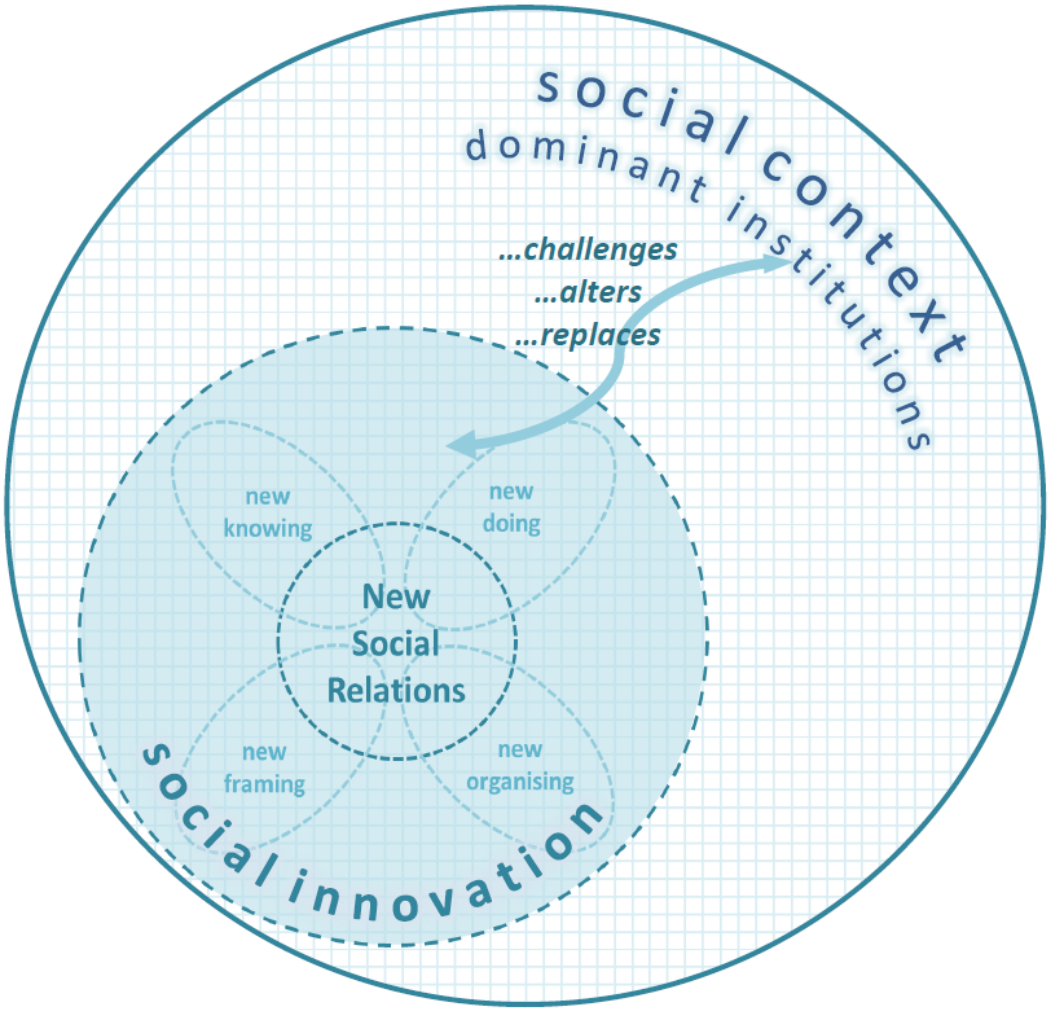


Figure 4. A simple 'cognitive map' of our mutual influence model of SI and the social context.

Social context can then be defined as, the set of relevant contextual factors that SI takes place in and that a SI-initiative must operate within, including i) established institutions and structures, ii) actors and networks (with which the SI-initiative may have relations), and iii) the broad societal framework conditions. This definition is designed to provide a basis for exploring *transformations* in the social context (and is consistent with the recent work of Rolf Reisig on characterising transformation as a specific type of social change). The importance of socio-

material relations including physical infrastructure, artefacts and social-ecological relationships is acknowledged and so 'social context' is used as a short-hand for 'socio-material context'.

Social innovation exists in a dialectic relationship to the social context. So as well as contributing to change processes in the social context, social innovation from another viewpoint can be understood as an emergent property of the social context (and possibly even an emergent property of change processes underway in the social context). A social innovation is not independent of the social context in which it exists, however, we hypothesise in the framework for TSI that is does have a degree of autonomy from the social context, and this degree of autonomy is both key to the 'difference' of the social innovation and can also be lost as the social innovation expands. A social innovation both reproduces and is constrained by the social context, but of course it may also exhibit agency and influence the social context. Thus the structuration perspective and notion of the 'duality of structure' is key to how we conceptualise social innovation.

The 'working definition' provided here is then a starting point for further empirical research and theory development in the TRANSIT research project. This characterisation then calls for a discussion and definition of what we mean by institutions and/or structures – and this is provided in the next section. A definition of scale in the social context is also called for and is provided in the following section.

Institutions in the social context

In addition to actors, collectives and their inter-relations, the social context can be understood in terms of structures and institutions. The framework for TSI adopts a relational co-productive ontology and so structures and institutions are understood as being co-produced by actors and collectives in the social context. Nevertheless they present a vital analytical level in resolving transformative change in the social context. And using concepts of institutions and structures allows the framework for TSI to draw upon insights and theory from several other areas of social science that deal with structural, institutional and/or systemic change, not least structuration theory and institutional theory.

As a starting point we note the recent theoretical work of Cajaiba-Santana (2014) that draws upon both structuration theory and institutional theory to develop a conceptual framework for social innovation. He understands institutions as norms, rules, conventions and values (Cajaiba-Santana 2014, p46) that enable and constrain social life. Cajaiba-Santana (2014) in his review comes to the conclusion that it is effectively possible to use the terms structure and institutions inter-changeably in conceptualising and theorising social innovation.

Building on the relational framing presented in section 2.2, established (and/or dominant) institutions and structures can be understood as 'conditioning' both existing social relations and established patterns of doing, organising, framing and knowing. A key implication of adopting a relational framing is that institutions are understood as being continually 'performed' and co-produced by social actors - social innovation is both constrained and enabled by (established) institutions and can also play a role (exert agency) in changing them.

Both relational theorists and recent scholarship on structuration theory on social transformations (e.g. Sewell 2005) emphasize that the social contexts are not homogenous but show variation, pattern and disjunctures: and indeed opportunities for transformative change may arise precisely because of such variations (Sewell 2005). Recent theoretical work by William Sewell re-invents structuration theory as an approach for explaining social transformation (why and how structures transform, rather than why they remain stable). And this work can be of great use to us in further developing the framework for TSI to explain the heterogeneity of structures and institutions in the social context (see section 7.4 in Annex 2 for further details).

Structures versus institutions

So far in this discussion then institutions and structures are not well separated from each other analytically. We noted as a starting point Cajaiba-Santana's (2014) claim that for the purposes of social innovation analysis, 'structures' can be understood as broadly similar to the concept of 'institutions' as developed in institutional theory. But how far does this claim stand up? And to the extent that it is true, should we not just use one term or the other in this framework?

It is true (using very broad brush strokes) that sociologists tend to use the term structures as the central term in contrast to institutionalists and institutional theory. This does not mean that the concepts are completely the same. Hodgson (2006), an institutional (evolutionary) economist, offers the following discussion of the difference:

> "Institutions are the kinds of structures that matter most in the social realm: they make up the stuff of social life. The increasing acknowledgement of the role of institutions in social life involves the recognition that much of human interaction and activity is structured in terms of overt or implicit rules. Without doing much violence to the relevant literature, we may define institutions as systems of established and prevalent social rules that structure social interactions."

He understands institutions as enabling ordered thought, expectation, and action by imposing form and consistency on human activities. He nicely summarises his conception of institutions in the statement that they: "depend upon the thoughts and activities of individuals but are not reducible to them".

He notes that not all 'social structures' are 'institutions':

> "Not all social structures are institutions. Social structures include sets of relations that may not be codified in discourse, such as demographic structures in animal species or in human societies before any understanding of demography. Demographic structures may limit social potentialities in terms of the number of infants or elderly requiring care and the number of able-bodied adults available to care, produce, and procreate. But they do not necessarily do this through the operation of rules."

Steve Fleetwood (2007) notes that:

> "institutions and structures have two important differences. First, institutions are systems of rules and conventions, whereas social structures are latticeworks of internal relations between entities. Second, institutions contribute to a process of reconstitutive downward causation involving habituation and habit formation whereby agents' intentions and actions are transformed or changed, whereas social structures enable and constrain, but cannot transform or change, agents' intentions and actions."

So we can agree with Cajaiba-Santana (2014) that in most cases, the terms institutions and structures refer to the same or similar things, in our words: systems of rule and association that enable and constrain human action. However, there are differences (in some literatures at least) and it is useful to maintain the distinction in the theory development work, but it might also work in framing the next stage of the empirical research to stick solely with a concept of 'institutions' in developing for example a 'working definition' of transformative change - this choice can be made in the elaboration of the empirical research protocol.

Finally, in the theory development there is also a concern with what we might call the 'patterning' or relations of institutions and especially the extent to which there may be a hierarchy and/or cross-cutting constituting elements for certain (clusters of) institutions. Thus the category of 'broad societal framework conditions' that was included in the definition of social context above (and following Reisig) could be considered redundant and simply included as 'institutions' but it is included here and understood with the 'working definition' that it can be used to refer to the 'framework conditions' that cut-across or condition many/multiple institutions in the social context (possibly across diverse areas of social life and across multiple institutional logics), so that changes in such 'framework conditions' can be considered as both an important indicator of, and an important causal factor in, a broad societal transformation.

Cajaiba-Santana 2014: integrating insights from institutional theory and structuration theory into research on social innovation

In recent theoretical work on social innovation, Cajaiba-Santana (2014) brings together institutional theory and structuration theory in developing a new conceptual framework for researching social innovation. Firstly, Cajaiba-Santana (2014) critiques previous research on social innovation that has overly emphasized a structural perspective:

> "we need a more holistic view of the phenomenon of social innovation in which agentic actions and social structures can be conceived as both dualistic and interdependent. The absence of such a relationship between agency and structure deprives us of empirical analysis of the complexity of the phenomenon." (Cajaiba-Santana, 2014, p46).

In developing the framework for TSI we make use of a *structuration perspective* – but we do not adopt structuration theory as a 'package'. As such a structuration perspective is compatible with

a relational framing, and indeed it can be understood as one of implications of a relational framing. We need a dynamic understanding of agency and structure in developing the framework TSI, hence this first version of a framework for TSI, already incorporates both a sophisticated treatment of agency in TSI as well as addressing how institutions and structures can be conceptualised. Cajaiba-Santana (2014) claims that such 'balanced accounts' of social innovation are still lacking or scarce in the SI literature, and we basically agree with him: "Primitive dichotomies of social innovator and 'System' abound, old ideologies continue to inform framings of social innovation".

Cajaiba-Santana (2014) provides us with a starting point in relating structuration theory to social innovation: "The theory provides a theoretical framework that highlights how social systems and social structures are iteratively and reciprocally created by agents who are both constrained and empowered by institutions." (Cajaiba-Santana 2012, p46-47). Cajaiba-Santana (2014) speaks in terms of a 'social system' (as 'regulated' assemblages of social practices) whereas here we use the term social context to refer to 'regulated' assemblages of activities in four aggregate dimensions of dimensions: doing, knowing, organizing and framing.

He claims that "Structures can be viewed as a set of institutionalized traditions or forms that enable and constrain action" (ibid) and cites Barley and Tolbert (1997) in suggesting that for the purposes of social innovation analysis, 'structures' can be understood as broadly similar to the concept of 'institutions' as developed in institutional theory.

In this framework for TSI we can also make use of institutional theory and especially understandings of 'processes of institutionalisation'. In developing the framework for TSI, we can agree with Cajaiba-Santana (2014; p47), that institutions both inform and set limits on human agency but that they are also the subject of human action and agency: "modifying, eliminating, or creating new institutions and eventually new social systems" (ibid). Carefully framing this insight is critical to our ambition to combine both a systemic perspective and a micro-theory of change (cf. social psychology approaches) in TRANSIT.

Cajaiba-Santana (2014) argues that an integration of IT and ST allows us to "understand institutionalisation as an ongoing dynamic process" which both provides a basis for SIs to engage in 'rule changing' and the basis for them to be 'co-opted' by the 'currently dominant' structures. Cajaiba-Santana (2014) notes that for Giddens, the idea of 'reflexivity' implies that: "actors have the capacity to monitor routinely their actions by reflecting upon them and acting according to their intentions. Reflexivity stands for the continuous monitoring of the social context and the activities taking place within this context. Agents' actions have the power of changing institutions, but are at the same time constrained by institutional practices." This property of social innovation actors, and their potential to exhibit agency, is "an essential and potentially transformative element of social systems." (ibid, p47).

In TRANSIT then, we are interested in the ways in which the ability of SI-actors to be reflexive is important to how (the ways in which) they are able to exert agency, and thereby a key feature of explaining the dynamics of transformative social innovation.

Conceptualising Scale in the Social Context

The scale at which different institutions operate and have influence is an important part of how the social context is made up and conditions the possibilities for transformative change. A discussion of scale in the social context and in processes of transformative change is provided in Annex 1. Scale is a concept of fundamental importance to TRANSIT because ultimately understanding patterns in transformative change depends on an understanding of scale. Transformative social innovation is all about the relationships between transformative change and social innovation and these relationships are scale relationships. The framework for TSI adopts a relational coproductive framing, and, at a more fundamental level of analysis, scale relationships are understood not as rigid structures of the social context (which might be 'scaled' like one would climb a ladder) but as the products of social interactions, that are continually co-produced by social actors and collectives (acting within the social context): crucially for TRANSIT then *scale relationships transform as the social context transforms*.

In the framework for TSI three types of 'scale' are identified with regards to social innovation: 1) geographic scale; 2) quantitative scale; and 3) scale in institutions and structures in the social context. Quantitative scale equates to the simple growth in size of a SI-initiative, measured in terms of some appropriate metric such as membership, turnover, participants, etc (similar to what is often referred to as 'scaling out' in the existing social innovation literature) while scale in the social context refers to the dynamic of changing institutions and structures with greater or lesser reach and stability (similar to what is often referred to as 'scaling up' in the existing social innovation literature).

Social innovations engage in scaling processes with respect to all three types of scale. The last type refers to scale relationships in the institutional and structural make-up of the social context. It can be defined/understood in many different ways, but as a starting point we can start with the related work of Frances Westley on systemic social innovation who suggest that a social system transformation occurs when there is a change in the Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system. This framing is grounded in structuration theory and has the advantage of having clear evaluation criteria. This scheme of Frances Westley (which is relatively simple) provides a starting point for us in resolving scale in the social context. Scaling processes in transformative change will involve changes at sufficient scale in one or more of the dimensions of Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system.

The 'reach' of an institution or structure may similarly be described in terms of a range of metrics including population affected, local-national-transnational, number of institutional logics affected, etc. Developing a more sophisticated analysis of scale relationships in TSI is an important task in the next stage of our research in TRANSIT. Adopting a relational ontology leads to an analysis of scale relationships not as 'rigid' structures in the social context but as the emergent outcomes of coproductive social interactions. We will develop our own set of dimensions for resolving scale in the social context as the project proceeds.

2.5 Social innovation and transformative change

Transformative change is understood as a particular type of social change in the social context. Annex 1 provides a detailed discussion of how we conceptualise transformative change and the role of social innovation therein. Here we build upon on the definitions of social context and institutions in the preceding section and provide some clarifications and revised 'working definitions' of what is understood by transformative change in the framework for TSI:

Transformative change = change that challenges, alters and/or replaces established (dominant) institutions and structures in a specific social context.

Transformative social innovation (TSI) = change in social relations, involving new ways of doing, organising, framing and/or knowing, which challenges, alters and/or replaces dominant institutions/structures in a specific social context.

Transformative ambition = when an initiative or network holds a vision or ambition to achieve/ contribute to an identified transformative change. This may be through the formal vision, aims, mission statement of the SI-initiative or it may be more implicit.

Transformative potential = when an object, idea, activity or initiative displays inherent and/or intended qualities to challenge, alters and/or replaces dominant institutions in a specific social context.

Transformative impact = when an initiative or network shows evidence (over time and space) of having achieved a transformative change.

Transformative change

Annex 1 provides a detailed discussion of we conceptualise transformative change and the role of social innovation therein. Here we simply provide a brief clarification of the working definition presented above. Transformative change can be understood as an irreversible, persistent adjustment in societal values, outlooks and behaviours of sufficient 'width and depth' to alter any preceding situation" in the social context. It is a matter of interpretation when something counts as a social transformation and when not. In general, a change in one dimension (of the social context) only does not count as a social transformation or transformative change. There have to be (related) changes in several aspects simultaneously, not just in one place but widely across society. This usually takes time and effort. The changes must be related to one another and they must have **sufficient scale**: e.g., at the level of societies (nations and beyond). However the criteria used to identify a transformative change do not need to be based on geographic scale, but could relate to scale relationships in the social context concerning e.g. Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules.

In our initial research in the project, we referred to examples of broad societal transformations such as the industrial revolution, European integration, or the rise of the market economy and the ideology of economic liberalism, as described by Polanyi in the 'Great Transformation'

(1944).[5] While we are indeed interested in TRANSIT in such large-scale and fundamental societal transformations and how social innovations interact with them, it proved difficult in the empirical research to make the connection between processes occurring at such vastly different scales of time and space. Therefore we decided in the framework for TSI to start with a conceptualisation of transformative change as simply change that challenges, alters and/or replaces dominant institutions in a specific social context. This definition then equates transformative change with institutional change, and allows the possibility that not all transformative change has to be at a fundamental 'society wide' level. In the next stage of the theory development, we will further develop a concept of scale that allows us to identify transformative changes at successively larger/broader scales.

Transformative Social Innovation

In developing a working definition of Transformative Social Innovation (TSI) we define TSI in terms of any social innovation process that works to influence process of institutional change in the social context. Hence a TSI can be defined as: a change in social relations, involving new ways of doing, organising, framing and/or knowing, which challenges, alters and/or replaces dominant institutions/structures in a specific social context.

Social innovations with transformative aims and ambitions

For the purposes of our study - which is to build a theory of transformative social innovation - an important distinction is *whether or not the social innovation has a transformative aim in a wider sense*. We propose to use this distinction (in a qualified way, by which we mean that the transformative aim is being explicated in what it consists of). The transformative aim may or may not be so clear and may not be shared. One task for the project is to investigate this on the basis of written sources and discussions with the practitioners.

Social innovations could be categorised as to whether they are situated in the social economy, market economy and government. Since they often involve actors from each of the domains, it is suggested not to do this. In the proposal, we implicitly said that the social innovations studied are situated in the third sector. We have learned that social innovations are not a pure third sector phenomenon, which suggests that we should move away from such a view. An additional

[5] The concept of 'societal transformation' is also distinguished from the concept of 'transition'. In transition studies, the notion of 'transition' is often used to refer to a specific type of change at the level of (socio-technical) sub-systems, i.e. what we here refer to as 'system innovation'. We use 'societal transformation' to refer to a more fundamental change at a higher level of aggregation: i.e. 'societies' rather than functional sub-systems. In recent years, some transition scholars have argued that 'societal transitions' also 'transcend individuals systems and comprise various system innovations at different scale-levels and over a long-term period of time' (Loorbach & Rotmans 2010). In that case, a societal *transition* can still be distinguished from a societal *transformation* in the sense that a transition can be considered to be *a specific form of transformation*. A transition is defined as a radical change that follows *a particular non-linear path*, typically over a period of one to two generations. Such a societal transition can be considered as a type of societal transformation. However, not all societal transformations necessarily follow such a transition path. As such, 'societal transformation' is a broader (and more neutral) term than 'societal transition'.

reason for this is that many of the practitioners prefer to talk about the new economy rather than the third sector.

For the time being, we suggest to use the distinction between social innovations with and without transformative aims as our main typology. The word "transformative" is used in combination with the word "aim". The degrees to which they can be said to be transformative, and the processes through which this occurs, are the central topics for investigation.

It is worth emphasising that the phenomenon of social innovation exists under different names and is rejected by some "social innovation" practitioners as a label as too 'modernistic' and/or 'fashionable'.

The comparison of the social innovation projects in TRANSIT deliverable D4.2 showed that social innovation projects differ from each other in important ways in terms of their transformative aims, level of organisation, narratives of change, and development trajectories. With the help of textual analysis, consisting of the sorting of quotes from practitioners, three development trajectories among the case studies have been identified: controlled expansion (with an important role for the network organisation, which may be created immediately after the first local initiative or later), bottom-up expansion with a weak role for the network organisation, and a mixed form. The role of the network organisation could be used as the basis for a typology for social innovation, but at this point we are proposing not to do this, as in all cases there is a bottom-up / top-down process going which in some cases is undergoing significant change. We prefer to keep the issue of typology open for the time being, except for the criterion of transformative aim.

Transformative social innovations could be understood along the lines of "any initiative (product, process, programme, project or platform) that challenges and over time contributes to changing the defining routines, resources and authority flows of beliefs of the broader social system in which it is introduced" (Definition of Frances Westley for (systemic) social innovation).

In TRANSIT, we prefer to consider transformative social innovation as a *process* rather than as a type. Understanding the process through which social innovation contributes to societal transformation, requires one to distinguish the former from the latter. This leads to another more open, fundamental research question: *how does social innovation interact with other forms of change and innovation, and how do we distinguish those*? (From: Avelino et al., 2014 paper on game changers).

In the framework for TSI then we define a concept of 'Transformative ambition' to signify when an initiative or network holds a vision or ambition to achieve / contribute to an identified transformative change. This may be through the formal vision, aims, or mission statement of the SI-initiative/network, or it may be more implicit. And similarly we define a concept of 'Transformative potential' to signify when an object, idea, activity or initiative displays inherent and/or intended qualities to challenge, alter and/or replace dominant institutions in a specific social context.

SI-initiatives/networks also reproduce established institutions

In further developing the framework for TSI, we need to address an important question or tension then about when a social innovation is actually transforming the social context versus when it is 'merely' reproducing the 'logics' that constitute the current social context. We might hypothesise that a SI-initiative that creates change that follows the logic of the current social context might be applauded while one that actual exerts agency for transformative change might encounter strong resistance. For example: Swyngedouw (2005), argues that naïve understandings of social innovation can obfuscate how a neoliberal ideology might operate through social innovations to reproduce dominant structures. In practice we expect that many SI-initiatives/networks may both forward radical alternatives and be supportive of established (dominant) institutions at the same time. In developing the framework for TSI, we need to address and resolve such multi-faceted relations with established (and dominant) actors and institutions in the social context.

What sort of transformative changes might social innovations engage with? Who decides? Might social innovation support both 'undesirable' as well as 'desirable' transformative changes? Might social innovation hinder or act against transformative change, acting instead to reinforce incumbents and currently dominant structures? These questions all need to be addressed in further developing the framework for TSI. They relate to the possibility that social innovation discourse and activity while purporting to support transformative change may actually at the same time be reproducing the 'logics' of established arrangements. An assumption often found in the 'policy discourse' around SI, is the idea that policy can support SI processes and thereby enhance positive outcomes. However we know from history that the opposite can also be the case and so we intend to develop the framework for TSI with capacity to resolve both the enabling and constraining effects of institutional frameworks, regulations and policy.

A more subtle issue in the current discourse around SI, concerns the assumption that making things better requires ever more 'innovation' and 'change'. Perhaps sometimes it is 'change' and 'innovation' that is the problem? This relates to e.g. the work of Zygmunt Bauman on 'Liquid Modernity' (and the work of Foucault and Swyngedouw…). Can a SI actually be about re-imagining traditional practices (and finding out how to allow them to flourish in a present-day context) rather than being only about the replacing of traditional practises with new practices?

We also need to address the issue that transformations may sometimes be associated with changes in 'deeply stable' rules that may be so intrinsic that they go almost completely unchallenged in particular a society at a particular time. A 'deeply stable' rule is foundational to a field or system; an example is the commodification of goods and serves in capitalism (Sewell, 1992). TSIs might reflexively engage in changing such 'deeply stable' rules directly[6] and/or they might interact with local change processes with transformations in 'deep rules' being emergent. In developing a framework to explain TSI dynamics it is also necessary to address the agency of 'elites' in working to maintain 'deep' rules over time (in both subtle and not so subtle ways).

[6] e.g. by creating an alternative community that disposed with capitalist notion of private property, or by lobbying at the landscape level for a fundamental reform of the rules of international banking regulations.

2.6 Narratives of change and theories of change

In the framework for TSI, the following 'working definitions' for Narratives of Change and Theories of Change are elaborated:

Narrative of Change = narratives or discourses on change and innovation. i.e. sets of ideas, concepts, metaphors, and/or story-lines about change and innovation. Narratives are "ways of expressing and building personal identify and agency" (Squire et al., 2008). Narratives often involve metaphors and slogans. The narratives of change of RIPESS are "creating critical mass" (a metaphor), 'united we stand, divided we fall' (a slogan), and "economic globalization needs its counterpart in globalized solidarity" (a justification).

Theory of change = a set of ideas, framings and assumptions about how change comes about. Thus it is not necessarily an 'academic' thing at all – it is assumed that any SI-initiative that implements strategy aimed at achieving some pre-determined goal will be informed (more or less explicitly) by a theory of change. While narratives of change are more metaphorical, theories of change tend to consist of much more elaborate, specific, structured and multi-layered models of change, which refer to and relate various actors, conditions, contextual factors and socio/ecological historical processes in maps of assumed causal relationships. Such views are not necessarily well-reflected in espoused theories for achieving change.

The narrative of change of the Impact Hub is "Impact Hubs are where change goes to work". Its 'theory of change' focuses on collaborative entrepreneurial action as a driver of social impact. Initially, the focus was on individual social entrepreneurs and their (social) innovations. This has shifted towards the creation of 'ecosystems' as enabling environments for entrepreneurial action, including more systemic collaboration and collective impact. Theories of change may thus change over time.

In reality, Theories of change and Narratives of change are more elaborate and complex. Theories of change (ToC) and narratives of change (NoC) are unlikely to be fully expressed in words. This is why it is important to not only look at words but also at action, leading Argyris and Schön (1974) to distinguish between "espoused theory" and "theory-in-use". One role for TRANSIT is to see how these theories, in their details, are similar, aligned or conflicting and could potentially complement or contradict each other.

Some strategies (such as cooperation with authorities) are likely to be contentious. The complementarity of different theories of change might be a crucial factor to build cohesiveness across networks. This may indeed be one of the contributions TRANSIT itself could make in this regard.

The story about how the NoC of Impact Hubs changed from providing space to individuals to helping change makers to collaborate shows that initial actions (based on ToCs) can change due to experiences and observations made and that this in turn then affects the NoC of the Impact Hub and possibly other initiatives.

A theoretical review on the relevance of research on narrative and metaphor to TRANSIT is provided in Annex 2 of this report (plus see also section 7.3 in Annex 2 for an overview).

2.7 Co-evolutionary pathways for TSI dynamics

Introduction

Annex 1 provides a description of how we intend to make use of coevolutionary perspective in the framework for TSI. The aim is to eventually develop an analytical framework which we can use to develop forward-looking descriptions of unfolding TSI pathways, describing them in terms of a co-evolutionary dynamic. The next section provides a succinct overview of how we understand and intend to use the concept of coevolution in the framework for TSI. Annex 1 also presents some of the elements of such an analytical framework, covering: types of coevolutionary interactions, types of outcomes of coevolutionary interactions, and types of pattern that might be observed in coevolutionary interactions. In the following section we provide an illustration of some tentative and speculative pathways for TSI, by way of illustrating how the framework for TSI might eventually be applied.

Co-evolutionary dynamics

In TRANSIT we also make use of a co-evolutionary perspective to explain the dynamics of pathways of transformative change. Co-evolution and co-production are sometimes characterised as belonging to different meta-theoretical perspectives (e.g. Garud and Gehman 2012), so clarification of how we theorise and define them in compatible terms is in order. In the literature on societal change different many types of co-evolution have been noted and studied (see section 2.2). A co-evolutionary view is premised on the idea that there are *cause-effect-cause* loops across different scales and sub-systems, with effects becoming causes of other developments ('positive feedback' in systems terms). A good example is the use of cars, which facilitated travel and urban sprawl, which in turn increased the demand for cars. Not every type of interaction should be called co-evolution. Formal implementations of the concept (within e.g. an evolutionary economics framework) define that, co-evolution occurs when two evolutionary processes of variation-selection-retention are interlinked (van den Bergh and Stagl, 2003) but in TRANSIT we adopt a less restrictive definition of co-evolution as being when developments in different subsystems are interlinked *and* partially independent. Co-evolution is a special type of interdependency: *A* influences but not determines *B* and *C*, which in turn influence but not determine *A*, although both A, B and C change irreversibly. The different units of evolution enjoy relative autonomy in development (Kemp et al., 2007). When technical change co-evolves with institutional change (within systems of governance and organizations and culture) both processes mutually influence each other, but do not determine each other. Within this less restrictive definition of co-evolution we are interested in the co-evolutionary dynamics between social innovation and transformative change processes, and other co-evolving elements (sub-systems) in the social context. However, we do not adopt a complex systems ontology but rather the 'reality' of the social context is situated with the co-productive relations of actors and collectives. A coevolving 'sub-system' is understood as an 'entanglement' of social relations where there is a sufficient alignment, over a particular interval of time for that 'entanglement' to be understood as 'behaving like' as a distinct element of the social context.

TSI as 'shifting the boundaries of the adjacent possible'

According to Steven Johnston, author of *Where Good Ideas Come From*, innovation is driven by the "adjacent possible", a term coined by the theoretical biologist Stuart Kauffman to explain biodiversity on planet Earth, which helps to appreciate the element of combination and recombination of ideas, tools and expertise in new forms. Use is made of what is available, through processes of alignment. Gutenberg's press combined ink, paper, movable type and, crucially, the machinery of the wine-press – the story of which is described in The Gutenberg revolution by John Man (2009). Westley et al (2014, p253) have applied this idea of the 'adjacent possible' to social innovations that they have studied:

> "*To achieve larger impact in a complex environment, the organizations described here create new pathways through combining different elements that are influenced by the initial conditions. In doing so, they shift the boundaries of what Stuart Kauffman (2008) refers to as "the adjacent possible." In other words, it can be argued that social entrepreneurs and non-profit organizations use different pathways to diversify future possibilities, by undertaking particular actions and making certain choices. Therefore, the pathways they choose to achieve system change vary, as a particular pathway or combination of elements may be more effective to shift the boundaries of the adjacent possible for a given organization and their context."*

This idea of 'shifting the boundaries of the adjacent possible' helps us to conceptualise social innovation as a future-making activity. A social innovation by its actions and existence changes the range of possible futures, opening up or closing down the possible outcomes of coevolutionary pathways of change. Actors in social innovations are able to be reflexive about transformative change and how they interact with the 'adjacent possible' possible. And 'intermediaries' may try to facilitate such reflexive learning processes among networks of SI-initiatives (cf. Moore et al 2015). This may turn out to be an important feature of TSI dynamics.

A speculative and preliminary set of co-evolutionary pathways for TSI[7]

Here are three contrasting pathways for TSI dynamics that have been developed based on the findings of the first batch of empirical research and theory development. Together with the subsequent discussion they are intended at this stage only to illustrate how we might use the concept of TSI pathways, and as a stepping stone towards a more systematic analysis of the dynamics implied in the empirical data we have collected so far.

Pathway I: Creation of a parallel 'shadow system' of an alternative economy which is developing next to the formal economy relatively free of external constraints. An alternative economy builds up over time as nascent social innovations form new connectives and an increasingly coherent set of related alternative provisions. Formerly separate developments -- such as slow food, transition towns and eco-villages based on holocracy, alternative currencies and moneyless exchange systems (as in Time banks), peer-to-peer (p2p) systems of production and permaculture -- become connected with one another and become recognisable as an alternative economy. Its growth is mostly driven by organic expansion of

[7] (René Kemp and Paul Weaver, 24/04/2015)

individual initiatives and creation of new connectives (such as virtual platforms and communities of communities) and partly by external facilitation of government (in the form of co-maker spaces and money to pay staff), donations and philanthropy investment. This pathway relates to the observation of systems change starting with community discussed in Westley et al (2014: cf. the LEGO configuration in Table 3. On p245) – place-based strategies and attempts to achieve local community change may over time link up to emergent strategies for broader policy/economic change. In this pathway, the agency for transformation is asserted through the coherence of this wider collective (through common framings, but also through 'aligned' processes of knowing, organising and doing). The shadow system becomes a point of orientation for societal actors, an option on the menu, bringing new actors into the shadow system of alternative living and working (economically marginal people but also professionals).

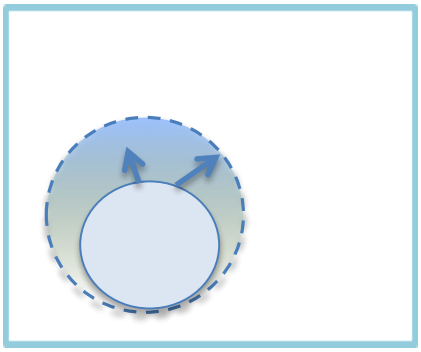
Pathway II: The scaling out pathway and emergence of hybrid forms: In this pathway the parallel system begins to solidify and assert a collective agency for further transformation, perhaps facilitated by opportunities afforded by "game-changing" developments, system innovations and/or other transformative change processes. In this case, social innovation initiatives based on sharing, holocracy, open source, peer-to-peer forms of production, 'pay for what you want to pay' for a service, cooperative forms of association (as buyers, producers and people living with one another), co-living start to influence various domains of the formal economy. An example is open source software becoming used in business and universities, for-profit companies offering arrangements for sharing goods and services, the acceptance of local currencies by local business and government, more participatory forms of urban planning and the building of cohousing places by commercial companies and social housing companies. The interplay with "the external context" will lead the less radical part of the social economy to take up elements from the normal economy (entrepreneurial thinking, accounting, quality assurance, …). In this pathway both domains will take up elements from each other, causing the informal and formal economy to converge. Radical forms will remain to exist at both sides (in the form of brutal capitalism and the radical counterpart of it).

Pathway III: Contestation pathway: In this pathway there is conflict between social economy actors, normal business and government, causing the social economy and the normal economy to change. Opposition may come from normal business who feels that its business is unrightfully undermined by social economy activities or from government imposing limits on social economy activities in the form of regulations. In the case of Uber and Airbnb there have been those reactions. Uber is forbidden in Germany and operating under unclear status in the US; in the Netherlands new regulations for the taxi system are under development. It also resulted in new companies being founded (such as Lyft in the US) whose aim is to reconnect people. Whereas Uber offers taxi services, Lyft brings together people for a trip to a common destination.

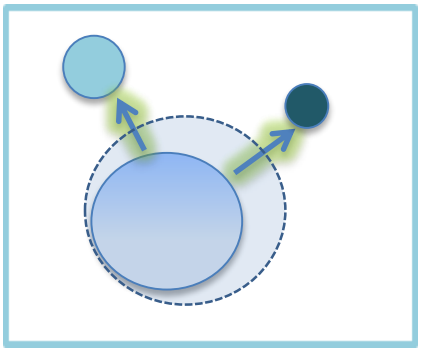
Pathway IV: Imposed change pathway: In this pathway, the social economy is targeted by the state as an area for socialisation and resocialisation. People may be encouraged to do this, with the help of incentives, or forced to do this. Obligations for young people to do community work for a period of 2 to 6 months are an example of a duty. The obligation may be restricted

to a certain group, such as school dropout without jobs in an attempt to prevent young people to engage in crime and drug abuse, and/or to people receiving state benefits. In return, the social economy will receive money from the government for employing professionals. This money will be tied to the number of obligatory service workers deployed and to social impact achieved (via social performance bonds). Safeguards will be introduced to make sure that the money is not being wasted and that people do meaningful activities. In this pathway, the state, the social economy becomes an instrument of government. Government will work with willing organisations that are incentivised to participate and achieve positive social impact. Steps in this direction are being taken by the Conservative Liberal Democratic government in the UK. In the name of "Building a big society", the government promised to launch a national 'Big Society day", to make regular community involvement a key element of civil service staff appraisals, to support co-ops, mutuals, charities and social enterprises, , and to introduce a National Citizen Service. The NCS consists of a "programme for 16 year olds to give them a chance to develop the skills needed to be active and responsible citizens, mix with people from different backgrounds, and start getting involved in their communities". In addition to these actions, public sector workers will be given the right to form employee-owned cooperatives and bid to take over the services they deliver.[8] The social economy sector will be transformed by such actions aimed at remaking society.

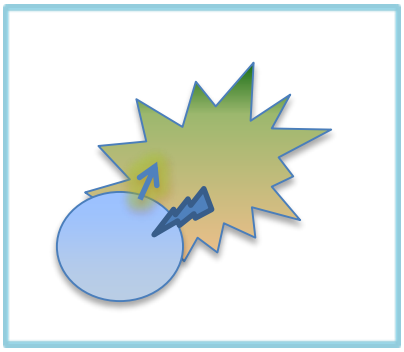
A simple visualisation of the pathways is given below:



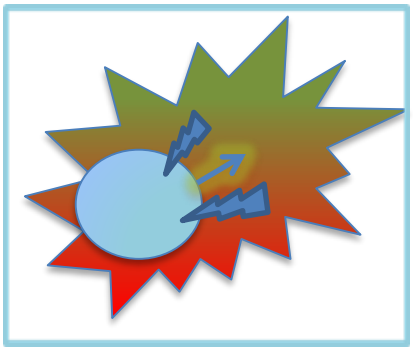
Pathway I



Pathway II



Pathway III



Pathway IV

[8] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78979/building-big-society_0.pdf

In Pathway III mechanisms of contestation and conflict are the central processes of change, resulting in de-alignment and re-alignment. In Pathway II the central process is absorption/assimilation (of alternative economy elements) fostered by learning and cooperation. Pathway I is driven by social innovation agendas, whereas Pathway IV is driven by external agendas of welfare state reform and resilience.

Each of the pathways has elements of transformative change. Social innovation of its own is unlikely to produce a societal transformation. In all likelihood, transformations require changes in duties and rights of citizens over work and income. In our analysis of transformations and co-evolutionary pathways, we should look beyond social innovation and look at *citizen income* (such as unconditional basic income) and *community services* as possible game changers for living and working. In the following, we attempt to explain why social innovation, citizens' income and community service provide potential for truly massive societally transformative change that is capable of addressing a good number of the major societal challenges - the sources of stress and unsustainability- that face current societal arrangements.

So what makes citizen income and community services so relevant for social innovation? And what is the link will transformation? Below we offer a first attempt at sketching the linkages between the three elements.

What social innovation can do is organise under-used labour to deliver societally useful services that are needed by society but that are provided now (if at all) unsustainably. In the process they can promote individual development and build social capital. The concept of community service could ensure that the under-used labour is available to the social innovations. This is reinforced by the concept of a citizen's (community) income (which would replace unemployment and related welfare benefits), since those providing labour as community workers would be remunerated partly by the income received, this making community service palatable. By inverse logic, the fact that society gets useful work from recipients of community income is likely to make the payment of such income palatable to tax payers. Community workers may also receive deferred benefits, such as rights to services in the future that will be provided by next generation community workers.

Participating social innovations and their membership organisations would receive investment and/or payment from state, business and charity sectors for organising the activities, probably in the form of mixed and hybrid finance. This is motivated because the activity being generated delivers value to each of the parties. The system reduces pressure on business and criticism of the market economy, which can never deliver on its own what is unrealistically expected of it; i.e. full employment. Business benefits also by a social context in which the basic needs of everyone are secured and in which everyone can have a role and no-one is marginalised. It benefits also from a system of citizens' income that secures base-level demand for goods and services produced and delivered in the market economy. It benefits from the fact that the available labour force is being kept active and skilled in a work-readiness mode, by the increased innovativeness in society that comes through more active social networking, etc. There may also be opportunities for business to invest in social innovations through performance assurance bonds that support the development of a cost-reducing infrastructure and deliver welfare

services efficiently through co-production. The state sees interest because this secures full-employment and ensures that basic material needs of everyone are met while providing for a big reduction in non-productive but expensive agencies of government whose role in current arrangements is mostly gate-keeping; i.e. ensuring that only those who are eligible for state benefits receive them. The gate keeping function would largely disappear under the new system, which would represent a big cost saving. There would be reduced need for many social and welfare services and reduced costs of delivering these services because many would be coproduced or delivered by the activities of the social innovations. Many charities and philanthropic organisations would also see value in an arrangement that provided services or processes interesting for them.

There are many ways in which a transformation along these lines could come about, since each of the three main elements and their interactions can be designed differently; i.e., which social innovations and activities are involved; whether citizen's income is provided universally or only to those taking part in community work; whether community work is an obligation or a choice; etc. The generation of the pathway would be a function of bottom-up innovations interacting with top-down innovations and would involve the coming together of innovations from society, the state, business and the voluntary sector. The broad end status can be envisioned. There are many pathways to it in terms of the details. It is nevertheless clear that some design issues - such as safeguarding - will be critical and must be resolved along the way. Of interest is to explore the pathways to such potentially transformative societal change in terms of identifying issues common to all or to many pathways, since these must be addressed. Especially important is to identify those issues that need to be addressed early on and to explore what actions are needed by which agents at which levels in addressing these.

At the moment basic income is not political acceptable and perhaps it will never become so, however the following developments can be expected to give basic income more political salience: The reform (cf. downsizing) of the welfare system (stemming from ideological positions and difficulties in raising taxes), high levels of unemployment and public dissatisfaction about inequality (long-term poor versus bonus-earning elites). Instead of an unconditional basic income which is being championed by the “Basic income in Europe” social movement we may get a conditional basic income. The expansion of the social economy need not come from the left minded people celebrating values of solidarity but may come from the political right based on ideas of small government and duties for citizens.

Both measures – basic income and community service - can be expected to have a big influence on the social economy that has to absorb large numbers of people forced to do something socially useful, for which it will need more professionals (volunteers and paid staff). In such a scenario, the social economy is not just “on the menu” but constitutes something compulsory. Cultural clashes are likely to occur, the consequences of which are difficult to predict. The distinction between the social economy and normal economy may become less sharp or sharper.

So *the idea here is that the agency for transformative change is asserted through different elements and combinations (of elements) at different scales in each of these different*

coevolutionary pathways and their interaction with other developments (such as citizen income and community service). Of course this is just tentative list and it is easy to see how actual pathways might combine these elements. It is also conceivable that small transformative actions by companies or government are followed by more transformative actions, as a possible fourth pathway. An example is the shift from CSR to shared value creation strategies through new product offerings and new partnerships with civil society actors and other economic actors.

Fair trade labels is an example of the mainstreaming of a social economy initiative. Whereas fair trade goods were only available at fair trade shops ("wereldwinkels" in the Netherlands) fair trade products are now for sale in regular supermarkets. Likewise, the model of cooperatives may spread across the economy, and in so doing, undermine the normal model of shareholder owned organisation run by managers. Volunteering may change from a strict volunteering act to a (moral) duty. Such processes are not controlled by any actor, but brought about by events and new generative paradigms gaining salience. All actors are part and parcel of (relational) historical (transformation) processes beyond individual and collective choice.

For the list on patterns it seems we have a rich supply of theoretical resources that we can draw upon, and this is discussed further in the next section. Some of these pathway links clearly with the notion of 'emancipating transformations' (cf. Andy Stirling's recent paper) while others might be understood (initially at least) as being more 'technocratic' and top-down, driving by ideas about duties for (certain) citizens. It can be seen that each pathway might present quite different answers to questions of: What transformations, and for whom? And how (and why) transformations get resisted by different groups in society, and why? And who decides what normative direction transformations might take?

The description of pathways is very much at the 'brainstorming' list stage at the moment, and we need see what sort of pathways emerge in our analysis of empirical cases of TSI. We also have the work by Frances Westley et al (2014) on configurations for scaling up social innovation (and related work) and the theoretical work of William Sewell on how social transformations can happen. Together this should provide the basis for a paper where we set out a typology of the different pathways we theorise for Transformative Social Innovation. The next steps then are further developing and theoretically grounding the framework for TSI that is set out here, and then to use it the basis to develop description of co-evolutionary TSI pathways from empirical cases. The ambition is that this then leads to further heuristics that can be used in explaining TSI dynamics and informing practice.

2.8 Agency in transformative social innovation

Introduction

Cajaiba-Santana (2012) in reviewing previous attempts at theoretical framing of social innovation, notes that: "the literature has oscillated between approaches centred either in agentic actions or in socio-structural contexts as determinants of social innovation". He suggests that: "because innovation exists in both volunteristic (action) and deterministic (structure) realities, any adequate theoretical understanding of it must embrace both of these aspects". Our use of a structuration perspective and a relational ontology provides us with the theoretical basis to combine both 'agency' and 'structure' narratives of change and transformation. This implies that we need to incorporate theoretical resources from e.g. social psychology theories in order to enable us to resolve the agency-side of TSI dynamics. This is a particularly innovative feature of the framework for TSI.

This approach provides a way to resolve the motivations for actors to join and engage in SIs. 'Motivations' provides an entry point, but we are also interested in what we refer to as 'inner transformations' – which include processes of changes in values, ways of relating, and autonomy. Some of the initiatives that we study in TRANSIT do in fact frame their activities in terms of 'inner transformation' and some also make use of 'theories of change' that embrace post-materialist epistemologies and 'ways of knowing' that lie outside of traditional western science and culture, drawing upon indigenous traditions for example. So we also need to address the dynamics that link 'inner transformation' processes within collectives to broader patterns of transformative change. A note here on what we mean by 'actions' and how we see them linking to processes of 'inner transformation' is warranted, as a starting point we agree with Cajaiba-Santana's (2012; p47) position that SI-actors should be understood in Habermasian terms as engaged in 'communicative actions'. Social Innovation is often understood as a kind of resistance against state or market instrumental reason, but can also be positioned as an attempt to 'mix rationalities', 'blur boundaries' and to reconcile different institutional logics (Bonno Pel 2015). So, we can assume 'mixed motives' as standard and 'communicative actions' rather actions that flow in a simplistic causal way from a particular strategy or generative paradigm. We also aim however to incorporate a place for the social entrepreneurship schools of social innovation and the perspective that individuals can have an important role in 'leading' social innovation initiatives (see Cajaiba-Santana 2012, p45 for a discussion).

Agency in social innovation and transformative change

We have argued that TRANSIT needs a dynamic understanding of agency and structure for transformative social innovation. As mentioned previously, we agree with Cajaiba-Santana (2012; p47), that institutions both inform and set limits on human agency but that they are also the subject of human action and agency: "modifying, eliminating, or creating new institutions and eventually new social systems" (ibid). Carefully framing this insight is critical to our ambition to combine both a systemic perspective and a micro-theory of change, such as organizational and social psychology approaches, in TRANSIT.

Social innovation actors, initiatives and networks carry forward projects and ideas that sometimes contribute to significant and transformative change in dominant institutions within the social contexts in which they operate. Structural theories and approaches have normally argued that agency is a result of resources that enable purposeful action and a cause of certain patterns of contextual conditions in which actors operate. However, as Roger Frie has recently argued, "if contexts are used not only to describe but also to explain the nature of human action, we run the risk of reducing meaning to a one-sided causal pattern between the context (cause) and the action (effect)" (p.36). He argues that agency cannot be reduced to individual capacities for reflective understanding and the capacity to imagine new ways of being and doing, on the one hand, or to the contexts within which agency is made possible.

Agency relies on the capacity for purposive action and the capacity to imagine new ways of being, new relationships and new ways of doing. Although these capacities depend themselves on the biological, social and cultural contexts that inform and shape who we are, they cannot be considered mere effects of these contexts. The concept of agency has many times been given connotations of free will, understood as a result of our cognitive/rational capacities for understanding options and choosing according to our own criteria. However, in TRANSIT, we aim to go beyond this conceptualization of agency to include its relational dimensions, following most recent psychological and philosophical understandings that see it as a central feature of the relational, embodied person, embedded within dynamically evolving social and interactive circumstances. Said differently, agency is not a static set of capacities, but rather a fluid process through which individuals and groups direct their actions to effect change at individual and interpersonal levels on the one hand, and in the social and political context in which they exist, on the other hand. Agentic capacities are thus conceptualized as emergent, embodied and experiential, and, as Frie has put it: "this process always evolves within an intersubjective field and cannot be understood as the function of a disengaged, rational mind" (2008, p.36).

Understanding transformative social innovation has to rely on an understanding of how individuals organized in groups imagine, experiment with and promote alternative ways of doing, organizing, framing and doing; and how they organize action in a way that challenges, alters and/or replaces dominant institutions in the social context.

We conceptualize agency as the result of a process by which individuals become free from the internalized dominant institutions that regulate how they think of themselves, how they relate to others and what they do. Becoming free from the internalized social context relies on our capacities for reflexivity and self-regulation, on the one hand, and on the interaction with others, on the other. It is still an open question for TRANSIT how collective agency is constituted in the interaction between members of a social innovation initiative for example, and what are the characteristics of this type of agency that lead to the initiative contributing to transformative change. It is our hypothesis that a sense of collective agency develops through the experimentation with new ways of relating within the social innovation initiative and the successful resolution of tensions between the need to shape the social innovation in ways that maintain sufficient space for autonomous action (defined as a process of alignment between one´s core values and one´s actions, as we will explain below) while at the same time allowing

action in a direction that fulfills the goals of the initiatives (understood as emerging from the interactions between members, and not as the sum total of members 'goals). It will be our task to try and describe these dynamic processes through which individual and collective change take place at the social innovation initiative level and how interactions with the social context (i.e. with the dominant institutions in the areas of knowing, doing, organizing and framing) further shape agency in processes of transformative change.

To be able to articulate a coherent notion of agency, and differentiate it from the concept of empowerment, the notions of autonomy and identity are relevant.

Self-determination theory (SDT, Ryan & Deci, 2000) has proposed a conceptualization of autonomy that is particularly relevant to notions of agency, as other authors attempting to use measurable notions of agency have already pointed out (Alkire, 2005). From an SDT perspective, human behaviour and experience are understood in terms of the meaning of events to individuals, and their significance for people's attempts to satisfy their basic psychological needs for competence, autonomy, and relatedness. Autonomy refers to self-governance and reflects the extent to which people authentically or genuinely concur with the forces that do influence their behaviour: "a person is autonomous when his or her behaviour is experienced as willingly enacted and when he or she fully endorses the actions in which he or she is engaged and/or values expressed by them. People are therefore most autonomous when they act in accord with their authentic interests or integrated values and desires" (Deci & Ryan, 2000).

As such, it should not be confused with independence (even the stability of a collective depends on people being relatively willing to adhere to its norms, practices, and values) or free will. Autonomy is expressed through acts and decisions that proceed from an individual's core self, are in accord with their values and interests, and are fully endorsed by the self, even at higher levels of reflection. Autonomy is not equivalent to independence, therefore acting autonomously does not strictly require the absence of external influences, pressures or constraints. A person can be self-determined even when acting in accord with an external demand, provided the person fully concurs with or endorses doing so.

SDT employs a continuum of motivational or regulatory styles in order to classify the degree of autonomy for any given action. The continuum ranges from heteronomy (controlled regulation) to autonomy (true self-regulation). Heteronomy refers to a situation "in which one´s actions are experienced as controlled by forces that are phenomenally alien to the self, or that compels one to behave in specific ways regardless of one´s values or interests" (Ryan & Deci, 2000).

Autonomy also requires integration, as the basis for development of the self. SDT distinguishes between external regulations, introjected regulation and acting out of unintegrated, compartimentalized identifications as three types of regulations that differ in their level of autonomy, but are not representative of true autonomy.

Amartya Sen defines human agency as "people´s ability to act on behalf of goals that matter to them" (1985). In TRANSIT, we consider that the ability to act on behalf of goals that matter to us is the instrumental aspect of agency, which is best conceptualized as empowerment, and we follow Alkire in considering empowerment as a subset of agency, which implies that increases

in empowerment would be reflected in an increased sense of agency but agency is not entirely dependent on empowerment. We consider agency to be the dynamic, relational and constantly evolving process through which actors transform themselves, their relationships and the social context in which they exist. Social innovation initiatives are many times motivated by a sense of the dominant social institutions thwarting one´s ability to act in accordance with one´s values and beliefs, and thus to be able to fulfil the need for autonomy, and a feeling that an alternative space is needed where, together with like-minded others one can transcend the internal and external constraints of the social context and create an alternative. Becoming autonomous requires a relational context in which alternative ways of being, relating and doing are co-produced with other sharing visions, values and goals. The creation of a context in which reflexivity contributes to the reshaping of dominant ways of doing, framing, organizing and knowing is both a result and a key part of processes of agency.

Agency is the capacity to reflect and overcome, become free from that conditioning, and feeling empowered is the instrumental aspect of agency, and relies on enabling and constraining conditions. The context created within the initiative needs to support autonomous functioning in the sense described above, for members to maintain motivation and feel empowered to contribute to the social innovation on the one hand, and to engage in intentional processes of transformative change (when there is such an aim).

As the instrumental dimension of agency, empowerment involves competence, impact, and resilience. Competence relates to what some authors have called “the power within” (Narayan et al., …) or to what Bandura has called personal efficacy (2006): “personal and social change rely extensively on methods of empowerment. These approaches achieve their effects by equipping people with the requisite knowledge, skills and resilient self-beliefs of efficacy to alter aspects of their lives (2000). Perceived self-efficacy is thus defined as a judgment or capability to exercise control over own functioning and events, while collective efficacy is a group´s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce desired consequences.

Impact refers to the effect of actions in terms of challenging, altering or replacing existing dominant institutions. Impact or lack thereof is a key element of (dis)empowerment, as actors need both success and failure experiences in order to maintain a sense of it. Empowerment implies an individual and collective capacity for resilience, in terms of mechanisms for resisting obstacles and experiences of failure and adapting strategies flexibly to changing circumstances.

Finally, agency involves a certain, even provisional stability of identity, or, as Eagleton formulated it, “crucial to the sense of agency of the self is the ability to construct a narrative of the self” (1991, p.198). Social innovation actors, initiatives and networks bring their social identities with them and these are transformed through the experimentation with new forms of doing, knowing, organizing and framing. Agency is not conceivable outside of a conceptualization of individual and collective identity, and in TRANSIT we will make use of social psychology theories to explain how processes of identity transformation support or hinder a sense of individual and collective empowerment, as well as how they contribute to more or less effective strategies of transformative change.

2.9 Further theoretical resources for this framework

The preceding sections of this chapter have outlined elements of a framework for TSI. It has been emphasized that this is a 'work in progress' and that the ambition is that the framework should be *generative* of further empirical research and theory development. Some theoretical 'building blocks' have already been addressed in the presentation of the framework so far.

Here we briefly address the issue of how to make use of additional theoretical resources in further developing the framework for TSI. A brief overview is provided here – while in annexes 1 and 2 of this deliverable, we present reviews, discussions and preliminary adaptations of a range of further theoretical resources. The remarks in section 1.2 of the document are also intended to clarify this programme of theory development in TRANSIT.

The basic idea is that with the foundation of a relational framing and relational ontology we integrate and/or adapt theoretical resources in the form of framings, concepts, and insights from a range of literatures and bodies of theory. Of course the aim is to do this where there is a need or gap in the framework as currently developed – the aim is to be sparing and only add further elements to the framework where it adds something useful.

We can distinguish three different types of theoretical resource that we need to make use of:

i. contributions that are useful in developing explanations of the dynamics of TSI (which is the core purpose of TRANSIT'S middle-range theory of TSI).
ii. literatures with various relevant empirical/topical foci (such as literatures on grassroots innovations, social innovation and social movements).
iii. theoretical-methodological framing resources (that address questions about the theoretical-methodological and ontological and epistemological framing of TSI theory, see section 1.2 of this deliverable, and the other TRANSIT deliverables highlighted therein for a further discussion of these aspects).

A helpful way to think about the first one is in terms of how different theoretical resources contribute to understandings of the cross-scale dynamics of TSI processes. Different bodies of theory can be identified that provide different insights about how interactions across different scales happen, and different takes on the role agency versus institutions/structures in those interactions.

Different theoretical resources may also relate to the different activities that social innovation engages in (knowing, doing, framing and organising).

The use of a relational ontology, leads to a set of questions to be asked of potential theoretical resources that we might make use of. And we can identify work influenced by, and compatible with, a relational ontology in diverse fields from social psychology to institutional theory.

Theoretical resources already identified as useful in developing the framework for TSI include:

- **Theory on transformative change, co-evolution and transitions.** See the discussion on how transformative change is framed and defined in TRANSIT in Annex 1 of this report.
- **Relational approaches to socio-technical change.** As discussed in section 2.2 and elsewhere, the framework is grounded in a relational framing of social innovation and further theoretical resources from relational theories can be used in the framework (see also the link to a completed theoretical review in in section 7.1 of Annex 2).
- **Social Practice Theory (SPT).** As discussed in section 2.2, Social Practice Theory can provide important insights about the dynamics of TSI (see the link to a completed theoretical review in section 7.1 of Annex 2).
- **Power and the multi-actor perspective.** Addressing power in TSI dynamics (see Annex 2, section 7.6). Plus a full theoretical review is being developed as of April 2015.
- **Narrative approaches.** Research on narratives informs TSI-theory development (see the link to a completed theoretical review in Annex 2, plus section 7.3 in Annex 2).
- **Social Psychology approaches.** As discussed in the preceding sections of this report, theoretical resources are required that enable the framework for TSI to adequately resolve agency in transformative social innovation (see the link to a completed theoretical review in section 7.1 of Annex 2, and also section 7.6 in Annex 2).
- **Social Movement Theories.** A theoretical review is being developed as of April 2015.
- **Research on Grassroots Innovations.** Grassroots innovations address systemic change, and are concerned largely (but not exclusively) with social innovation, so the relevance for TRANSIT of this body of research is clear A theoretical review is being developed as of April 2015 (see also section 7.5 in Annex 2).
- **Resources from the social innovation literature.** Especially the work of Frances Westley and colleagues that have developed a systemic approach to social innovation, and in so doing have confronted similar theoretical challenges to those addressed here (see Annex 1 for a discussion of some of the recent work of Frances Westley et al.).
- **Institutional Theory, Institutional logics and Institutional Entrepreneurship.** Starting with the framing presented in here, and building on the work of Cajaiba-Santana (2014), there is a need to develop a more sophisticated framing of how social innovation interacts with processes of institutional change. A theoretical review is being developed as of April 2015.
- **Structuration Theory.** Recent theoretical work by William Sewell (in his book *Logics of History: social theory and social transformation*) develops structuration theory to explain how and why and how structures are transformed (rather than only how and why they remain stable over time). This work can be of great use in further developing the framework for TSI (see Annex 2, section 7.4).

As a series of theoretical reviews on these different bodies of theory are completed at this stage in the project, a next step will be to develop a systematic analysis of the further requirements of the 'prototype' framework for TSI and then evaluate how the different theoretical resources listed above may be utilised in further developing a next iteration of the framework for TSI.

3 Propositions about TSI dynamics based on a first Theoretical Integration Workshop (TIW)

3.1 Introduction

The first Theoretical Integration Workshop (TIW) was held in Norwich from 23-25th March 2015. The workshop brought together the findings of the empirical case study research with the development of a middle-range theory of TSI. The workshop included all of the lead case study researchers. As preparation for the TIW, participants were asked to develop summary 'TSI narratives' for each case study and to also study the reports from all twelve cases. The design of the workshop was intended to create a space where TRANSIT researchers could firstly reflect on the 'Batch 1' case studies and start to develop some 'inductive' propositions about the observed dynamics. And then, secondly, to compare these 'inductive' propositions with a set of 'deductive' propositions developed in WP3. The purpose of the workshop was to provide the basis for creating a first prototype of a middle-range theory of TSI in the form of a structured set of propositions about the dynamics of TSI. A full report on the workshop is included as Annex 3 of this deliverable. This TIW workshop report includes the 'raw' notes compiled from the various break-out working groups and plenary discussions that were held during the workshop.

The TIW workshop report provided the basis for a smaller meeting of the research team with responsibility for putting together this deliverable. This meeting was held in A Coruña from 14-16th April 2015 (a meeting report is available on the TRANSIT Box web-site). The purpose of this meeting was to firstly revise and clarify the framework for TSI based upon the outcomes of the TIW and secondly to develop a consolidated set of propositions about the dynamics of TSI. This consolidated set of propositions is presented in the next section. The propositions delineate what it is that we want to find out about the empirical phenomenon of TSI in the remainder of the TRANSIT research project. They will be used as a basis for developing an empirical research protocol for the next phase of research in the TRANSIT project - this will be done jointly between the WP3, WP4 and WP5 teams of the project - after the submission of this WP3 deliverable D3.2.

3.2 A consolidated set of propositions on TSI dynamics

The following three pages present the propositions about TSI dynamics. They build on the framework for TSI and 'working definitions' of key concepts developed in chapter 2 of this deliverable. The propositions should be read in conjunction with the list of working definitions provided in section 3.3. After experimenting with various 'clusterings' of different aspects of TSI dynamics, we eventually settled on a clustering based on just three categories: How SIs emerge, move and expand (across time and space); How SI and transformative change interact; and, Agency in SI and transformative change. These categories are simply a way of presenting the propositions - there is overlap between them in terms of the dynamics that they might refer to, and it follows that several of the propositions could be situated in more than one category.

1. How SIs emerge, move and expand (across time and space).

Note the 'working definitions' of: Social Innovation (SI), SI-initiative and SI-network (see section 3.3 of this document).

1.1. SI emerges from dissatisfaction/s with existing social relations and 'dominant' ways of doing, organizing, framing and knowing (why).

1.2. SI emerges as a reaction to 'tensions' in/with technological, economic, political and social conditions (why).

1.3. SI emerges in 'experimental spaces' where like-minded people gather (how, where, who).

1.4. SI emerges when actors are motivated to create new social relations (and new ways of doing, organizing, framing and knowing) more in line with their visions and values (why).

1.5. Actors continue to remain engaged only as long as a SI-initiative or network is perceived to be in line with their own vision and values.

1.6. SI-initiatives require a phase of inward-looking development with sufficient autonomy (from the social context) to develop a coherent vision (when, how).

1.7. SI emerges successfully amongst a group of people (in a SI-initiative) when they are able to dialectically 'transcend' (some) constraints (as existing institutional arrangements) of the social context within the 'experimental space' they create.

1.8. To persist, move and expand a SI-initiative/network requires 'spaces', 'resources', and 'tools' for empowerment.

1.9. To persist, move and expand a SI-initiative/network must develop and implement strategies that allow it to create and maintain spaces and mobilise resources.

1.10. To persist, move and expand, a SI-initiative needs to recruit actors (create social relations) from outside of its initial group, both as supporters to provide it with legitimacy and/or resources, and to access 'intermediaries' able to translate between SI and the social context (who, when).

1.11. The movement and expansion of SI is facilitated by processes of comparison and competition by actors (both SI-actors and 'intermediaries') operating between different contexts, regions and institutions.

1.12. As SI-initiatives move and expand (across time and space) they must engage in a 'dialectic relation' with *established* institutions, organizations and actors (who may be both receptive to the SI and/or have powers to change the framing conditions for the social innovation).

1.13. When SI interacts with established institutions it (inevitably) loses some of its autonomy.

1.14. SI-initiatives that succeed in expanding (across time and space) must develop strategies that enable the preservation of autonomy while also engaging with external actors and institutions, if they fail at this they may persist as viable 'organisations' but in a form that is captured by established arrangements (as dominant institutions and structures).

2. How SI and transformative change interact

Note the working definitions of: transformative change, transformative ambition, transformative potential, and transformative impact (see section 3.3 of this document).

2.1. SI has a two-way relationship with 'transformative change' - SI can be explained as outcome of transformative change as well as a contribution to transformative change.

2.2. Transformative change requires SI; SI requires transformative change (how).

2.3. SI may be linked with transformative impacts both intentionally and/or unintentionally (a SI-initiative or network may play a role in the dynamics of transformative change processes, irrespective of whether or not it has a transformative ambition or vision).

2.4. SI has a dialectic relation with existing/established (/dominant) institutions and structures - they both challenge them and reproduce them.

2.5. For SI to have transformative impact, it must challenge, alter and replace established institutions across all institutional logics (i.e. market, state and civil society).

2.6. SI can be transformative at a personal level (but to link to transformative change in the social context there needs to be in place recursive relations of learning and influence between the inter-personal and the collective levels (and with processes of institutional change).

2.7. For an SI-initiative/network to have a transformative impact, it needs to resolve its own, internal tensions with the social context (that arise from a 'lack of fit' between the innovation and existing arrangements).

2.8. For a SI-initiative/network to have a transformative impact it must maintain a sufficient integrity of its initial vision while also adapting its strategies/actions to the (changing) social context.

2.9. Many SI-initiatives start with 'local' ambitions but as they develop/expand they come to realise that in order to further promote the SI they need 'transformative' ambitions.

2.10. This represents an Achilles' heel moment which demands both a radical internal change and the creation of new relations with external actors and institutions.

2.11. For SI-initiatives/networks to have transformative impact, they need to 'play' (make advantageous) relationships with established, institutions and actors in ways consistent with their transformative ambitions. This may follow dispositions such as complying, irritating, avoiding, resisting, compromising, hijacking.

2.12. For a SI-initiative/network (with a transformative ambition) to have a transformative impact it needs to need to engage with and promote narratives-of-change that both justify the transformative ambition/s and inform practical strategies and actions.

2.13. SI-initiatives/networks (with transformative ambitions) can achieve transformative impacts by exploiting situations where intersecting or overlapping (or contested) institutions (in the social context) create opportunities for institutional change.

2.14. To be part of achieving a broad societal-wide transformative change, a SI-initiative/network must develop a strategy to challenge, alter and/or *replace multiple and inter-linked* clusters of established (dominant) institutions (in that social context).

3. Agency in SI and transformative change.

Note the working definitions of: agency and empowerment; and, governance, learning, monitoring, and resourcing (see section 3.3 of this document).

3.1. SI-initiatives/networks can increase their agency (/transformative impact) by reshaping established social relations and institutions in ways that further enable the SI.

3.2. SI-initiatives/networks can increase their agency (/transformative impact) by developing a portfolio of *different* strategies for *different* aspects of the social context.

3.3. Networks and especially transnational networks enable SI-initiatives to gain access to specialized actors outside of their original constituency.

3.4. SI-initiatives/networks (with transformative ambitions) can increase their agency (/transformative impact) by interacting with other SI-initiatives/networks (forming 'clusters' and/or a 'field') to create alignments (around visions, strategies and actions).

3.5. TSI agency involves individual and collective TSI reflexivity (reflexivity about TSI).

3.6. Having theories of change that explicitly, and adequately, address TSI dynamics (how SI interacts with transformative change) increases a SI-initiatives transformative potential/s and transformative impact/s.

3.7. For SI-initiatives/networks to have transformative impact/s they need to update and adapt their theory-of-change based on learning about the effects of their strategies and actions on challenging, altering and/or replacing institutions in the social context.

3.8. The transformative ambitions of SI-initiatives/networks differ not only in the extent to which they aim to challenge (alter and/or replace) existing structures and institutions (in the social context) but also in terms of how 'radical' (how fundamentally different form present arrangements) are the institutional changes that they propose.

3.9. SI may be instrumentalised by powerful actors (for example, conservative parties using the social economy as a cushion for welfare state reforms) If so, there may be gains in resilience and status of the social economy but transformative potential is reduced.

3.10. [Social learning] Reflexive learning processes are necessary for a SI-initiative/network to persist (over time and space) and adapt successfully to a changing social context.

3.11. [Resourcing] A SI-initiative/network may create or gain access resource flows that have a degree of autonomy from dominant institutions, but to have a transformative impact (on the social context) it needs to mobilise resource flows in the social context.

3.12. [Governance] To achieve a transformative impact, a SI-initiative/network needs to adopt and adapt modes of governance that are BOTH effective (in terms of movement and expansion) AND consistent with (the values of) the SI.

3.13. [Governance] SI-initiatives/network must navigate existing governance arrangements in the social context, whether by playing into them (to achieve more support) or by ignoring or challenging them.

3.14. [Monitoring] Externally imposed monitoring and evaluation processes always result in a loss of autonomy for a SI-initiative; however, reflexive forms of monitoring and evaluation are also possible that take the form of an embedded activity that informs learning processes and ultimately enhances the agency of the SI-initiative.

3.3 Key concepts and working definitions (April 2015)

A set of key concepts and working definitions are presented here as accompaniment to the consolidated set of propositions. The list below represents only a subset of the total set of concepts used in the framework for TSI. Furthermore the act of developing a 'working definition' is understood as a theory building activity in itself. So this list of 'working definitions' is presented only as a starting point in framing the next stage of the research process in TRANSIT.

Social innovation = A change in social relations, involving new ways of doing, organising, framing and/or knowing. Objects of social innovation can be Ideas, objects and/or activities. These are 'socially innovative' – and can thus be referred to as 'social innovations' - to the extent that they imply/demonstrate a change in social relations (necessary condition) associated with new ways (or co-productive combinations) of doing, organising, framing and knowing.

SI-initiative = Collective of actors that (aims to) work on ideas, objects and/or activities that are socially innovative.

SI-network = A network of collectives of actors that (aims to) work on ideas, objects and/or activities that are socially innovative.

Social context = The set of relevant contextual factors that SI takes place in and that a SI-initiative must operate within, including i) established institutions and structures, ii) actors and networks (with which the SI-initiative has relations), and iii) the broad societal framework conditions. Note that the term social context is used here (as opposed to 'social system') as the framework is based on a relational ontology and not a systems ontology. The importance of socio-material relations including physical infrastructure, artefacts and social-ecological relationships is acknowledged and so 'social context' is a short-hand for socio-material context.

Established (and/or dominant) institutions = both formal and informal institutions (as norms, rules, conventions and values; cf. Cajaiba-Santana 2014, p46) that constrain and enable social relations and established patterns of doing, organising, framing and knowing. The co-productive relations of SI-initiatives/networks operating in a social context can be understood (following a structuration perspective) as both reproducing established institutions as well as being constrained/enabled by them (and also, to the extent that they are 'socially innovative' working to challenge, alter and/or replace them).

Experimental space = A 'space' that is constituted through a group of actors and the (co-productive) social relations that they have, which provides an opportunity for actors to work together in ways that are (to some extent) independent (or autonomous) from the social context (as enabled/constrained by established institutions, etc). The term is used in TRANSIT to imply a space where 'experimentation' (in co-productive social relations) can take place but also as a 'space' where actors are able to exert a 'push' in some way and create some measure of autonomy (from the social context) and/or exploit ways in which a 'protected space' may have opened up in the social context due to external factors (whether intended or unintended). The experimental space may also have spatial and material associations and relations but is defined here in terms of the social relations through which it is constituted.

Institutional logics = particular constellations (or sometimes referred to as complexes) of established (and dominant) institutions, covering e.g. market, state, and civil society.

(Local) Initiative = a (local) place, activity, community, project or programme. In the context of TRANSIT, we refer to 'local initiatives' as local 'manifestations' of the transnational networks that we study as empirical cases. What a 'local initiative' means can differ for each case-study. E.g. in the case of the Impact Hub it can refer to a specific workplace (the Impact Hub Amsterdam), in the case of the Global Ecovillage Network the local 'initiative' can refer to an ecovillage community (e.g. ecovillage Tamera in Portugal), in the case of Transition Towns, an 'initiative' can refer to a group of people that have adopted the idea of Transition Towns for their own city/ town/ neighbourhood.

(Transnational) network = a (transnational) collection of initiatives and actors that are connected to each other and share an equal concept and identity, either formally or informally. 'Transnational' implies that the network crosses national borders.

Transformative change = change that challenges, alters and/or replaces dominant institutions and structures in a specific social context.

Transformative social innovation (TSI) = change in social relations, involving new ways of doing, organising, framing and/or knowing, which challenges, alters and/or replaces dominant institutions/structures in a specific social context.

Transformative ambition = when an initiative or network holds a vision or ambition to achieve / contribute to an identified transformative change. This may be through the formal vision, aims, mission statement of the SI-initiative or it may be more implicit.

Transformative potential = when an object, idea, activity or initiative displays inherent and/or intended qualities to challenge, alters and/or replaces dominant institutions in a specific social context.

Transformative impact = when an initiative or network shows evidence (over time and space) of having achieved a transformative change.

Co-production = SI-initiatives engage in productive (co-productive) activity across four dimensions of doing, knowing, organising and framing. The term coproductive is used in two senses. Firstly it implies that SI-initiatives are productive in each of these four dimensions through their relations with other actors, collectives and networks in the social context – they don't in fact 'produce' things but rather coproduce them through productive relationship with other actors. The second sense in which the terms is used is to imply that each of these four dimensions actually co-produces each other – activities in these four dimensions continually interact and co-produce each other: forms of knowledge; frames, modes of organsing and ways of doing things are all shaped co-productively.

Co-evolution = In TRANSIT we adopt a less restrictive definition of co-evolution as being when developments in different subsystems are interlinked *and* partially independent. Co-evolution is a special type of interdependency: *A* influences but not determines *B* and *C*, which in turn influence but not determine *A*, although both A, B and C change irreversibly. The different units of evolution enjoy relative autonomy in development (Kemp et al., 2007). When technical change co-evolves with institutional change (within systems of governance and organizations and culture) both processes mutually influence each other, but do not determine each other. Within this less restrictive definition of co-evolution then we are interested in the co-evolutionary dynamics between social innovation and transformative change processes, and other co-evolving elements (sub-systems) in the social context.

Narrative of Change = narratives or discourses on change and innovation. i.e. sets of ideas, concepts, metaphors, and/or story-lines about change and innovation. Narratives are "ways of expressing and building personal identify and agency" (Squire et al., 2008). Narratives often involve metaphors and slogans. The narratives of change of RIPESS are "creating critical mass" (a metaphor), 'united we stand, divided we fall' (a slogan), and "economic globalization needs its counterpart in globalized solidarity" (a justification).

Theory of change = a set of ideas, framings and assumptions about how change comes about. Thus it is not necessarily an 'academic' thing at all – it is assumed that any SI-initiative that implements strategy aimed at achieving some pre-determined goal will be informed (more or less explicitly) by a theory of change. While narratives of change are more metaphorical, theories of change tend to consist of much more elaborate, specific, structured and multi-layered models of change, which refer to and relate various actors, conditions, contextual factors and socio/ecological historical processes in maps of assumed causal relationships. Such views are not necessarily well-reflected in espoused theories for achieving change.

Actors = entities that (can) act/ have 'agency'. For now we distinguish at least three types of actors: (1) sectors (state, market, community, Third Sector), (2) organisations (e.g. municipality, cooperative, university etc.), and (3) individual roles (e.g. citizen, consumer, activist, resident, neighbourhood, etc.) (See Avelino & Wittmayer 2014). At this stage, the question about 'how actors relate to each other' is a very open question on social relations (e.g. professional vs. intimate, formal vs. informal, cooperative vs. competitive, hierarchical vs. egalitarian etc.).[9]

Agency = both a central feature of the relational, embodied person, dependent on human capacities for purposive action and the capacity to imagine alternatives; and a dynamic, relational and constantly evolving process through which actors transform themselves, their

[9] ***Distinction: initiative – network – actor.*** *A local initiative can itself be a network organisation and as such also an 'actor'. Each case-study should start by clarifying what are the* ***two embedded objects of analysis****, one at the (1) 'transnational network' level, and one at the (2) 'local' level. This is part of research question 1. From then onwards, the first is referred to as 'network' and the latter as 'initiative'. If the chosen 'initiative' is an organisation and thus an actor in itself, then the question about actors becomes a question about other actors.*

relationships and their social contexts. As a process, it entails the development of individual and collective autonomy and a coherent sense of identity.

Autonomy = a fundamental human need and a process of self-governance through which people align their action to their authentic interests, values and desires; through the use of agentic capacities, people can challenge, alter or replace elements of the social context that thwart autonomy.

(Dis)empowerment = the instrumental aspect of agency and a process through which people gain a sense of influence and direction over circumstances that affect them. It involves competence (a judgment or capability to exercise control over own functioning and events), impact (having the sense of, and the experience that actions achieve a result in terms of challenging, altering or replacing existing dominant institutions); and resilience (developing the capacities for resisting obstacles and experiences of failure and for adapting strategies flexibly to changing circumstances).

Vision = A set of ideas that a SI-initiative has on what it wants to achieve at some future date. A vision may be explicit and stated in formal ways (such as in a mission statement) or it may be more implicit and tacit, identifiable in terms of the discourse and actions of a group over time.

Strategy = Can be understood as a 'high level plan' to guide, structure and inform actions to achieve a vision or goal that the SI-initiative holds at a particular time. A strategy will normally be flexible and designed to be implemented under conditions of uncertainty. A SI-initiative may hold more or less explicit and/or implicit approaches to inform actions and realise goals - so strategies may be implicit and ad hoc or they be identifiable in more formal processes of organisation and governance.

Intermediaries = The concept of *intermediaries*, can be invoked to conceptualise how social innovations are held together, these: "can be anything that passes between and within collectives which hold them together…. which defines a relationship between them. Examples include – scientific articles, computer software, disciplined human bodies, technical artefacts, instruments, contracts and money (Callon 1991). Intermediaries often constitute forms of exchange: flows of resources, knowledge, energy etc. Some intermediaries are forms of enunciation; statements and signs that allow different elements to communicate with each other (Irwin and Michaels, 2003)."

Social innovation 'cluster' and 'field' = The concepts of a social innovation 'cluster' and 'field' are used to describe social relations, interactions and joint activities that occur across multiple SI-initiatives/networks (also referred to as cross-network interactions). A need for a distinction between the two terms is made based on observations made in the batch I cases, where smaller and less formal 'clusters' of cross-network interactions were observed as well as larger, more substantial, and sometimes more formal and/or sustained cross-networks interactions. A preliminary distinction might be that a 'SI cluster' refers to two or more interacting SI-networks while a SI-field refers to a larger arrangement (entanglement) of cross-network interactions that will have significant interactions across more than one institutional logic.

Governance = processes of governing (regulating, decision-making, steering) by all types of actors (including but not confined to govern*ment*). In the framework for TSI, it is framed as one of the activities within the *organising dimension* of social innovation activities (see social innovation def. above).[10]

(Social) learning = processes of learning (acquiring information, knowledge, experience), between individuals and groups at the level of the initiative/network, but also beyond the initiative/network to the broader social context. In the framework for TSI, it is framed as one of the activities within the *knowing dimension* and/or *framing dimension* of social innovation activities (see social innovation def. above).

Resourcing = the process by which actors acquire the resources they need to attain their goals. Resources can refer to monetary resources, but also to natural resources, artefacts, information or 'human resources' (i.e. man hours). In the framework for TSI, it is framed as one of the activities within the *doing dimension* of social innovation activities (see social innovation def.).

Resources = Resources can be defined broadly as persons, assets, materials or capital, including human, mental, monetary, artifactual and natural resources (Avelino 2011). There is no inherent hierarchy of relevance between the different resources; each type of resource can be the object of power to more or less extent. All resources are interrelated and in order to mobilize one type, one may need to make use of other types.

Monitoring = the process that actors use to evaluate the impact/progress of their initiative/network on/in the context of the surrounding societal systems. In the framework for TSI, it is framed as one of the activities within the *doing dimension* of social innovation activities (see social innovation def. above).

[10] ***How do 'governance', 'social learning', 'resourcing', and 'monitoring' relate to 'empowerment'?*** *We are first interested to know how actors are '(dis)empowered' in 'general'. Then we are specifically interested how actors feel (dis)empowered by the specific processes of governance, (social) learning, resourcing and monitoring.*

4 Conclusion and next steps

This deliverable (D3.2) has reported on a 'first prototype' of a middle-range theory of transformative social innovation. The prototype represents a 'snapshot' of progress at month fifteen of a four-year research project; it is be followed by two further deliverables reporting on successive iterations of the theory, as well as academic publications and applications to practice. The prototype has been presented here in the form of a *framework for TSI* consisting of: a theoretically-grounded conceptual framing of social innovation and transformative change, a set of propositions about the dynamics of TSI, and an illustration of how we intend to use the framework as a basis for developing forward-looking co-evolutionary pathways of TSI. The framework for TSI is designed to be *generative* – both of further empirical research and in terms of further theory development. The set of propositions presented in chapter 3, along with a 'cognitive map' (schematic diagram) and set of working definitions of key concepts provides an input to the next round of empirical research (WP4 batch 2 cases and the WP5 meta-analysis).

What has been achieved, so far, is to provide a solid basis for future research and theory development on the phenomena of TSI. By bringing a relational perspective on TSI into a theoretical dialogue with a co-evolutionary perspective, we do not claim to have produced an integration of these different theoretical traditions, and neither is that the goal. Rather the ambition is that this dialogue will on the one hand lead to further clarification on how a relational perspective can be developed to explain transformative change, while on the other hand a relationally-informed interrogation of the constructs used in a coevolutionary framework will also produce advances. Use of a relational ontology also provides a basis for consistently incorporating further theoretical resources into the framework for TSI as the project progresses.

The next steps in the TSI theory development follow the TRANSIT DoW with two more Theoretical Integration Workshops planned to further develop the TSI theory, based on the findings of the next stage of empirical research. We are also busy with a range of complementary research activities designed to further develop the framework for TSI, including:

i) Further developing and theoretically grounding the framework for TSI, following the needs, requirements and opportunities identified in this deliverable. This will include completing a set of theoretical reviews and developing an analysis of how different theoretical 'building blocks' can contribute to development of the framework for TSI.
ii) Applying the framework for TSI to develop descriptions of co-evolutionary TSI pathways for specific empirical cases. The ambition is that this then leads to further heuristics that can be used in explaining TSI dynamics and informing practice.
iii) Developing a practice brief on transformative change (with TRANSIT WP2 and WP6) to inform practice and evaluate and improve the practical utility of the framework for TSI.
iv) Developing a mapping of the 'SI-field' to better identify the patterns in interactions *across* SI-initiatives/networks and the institutional settings and architecture for TSI.

In addition, we are developing a first batch of publications on the framework for TSI and its applications, and exposing the TSI theory development to dialogue and feedback with piers, including by holding a joint-theory workshop (on social innovation theory) with the (closely related) FP7 IP project SI-Drive and the Waterloo Institute for Social Innovation, and with presentations and special sessions at key upcoming conferences such as *Transformations2015*.

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6 Annex 1: Framing and defining transformative change

6.1 How TRANSIT conceptualises transformative change

TRANSIT addresses the role of social innovation in *systemic* or *transformative* change. We therefore need to conceptualise what we mean by transformative change, in particular, how we might empirically identify a transformative change *ex post* and what might be empirical signs or indicators of transformative change in progress? As this section will make clear, defining scale in turn requires us to be clear about scale and how we use the idea of scale in TRANSIT.

But first let's take a brief look at some recent attempts at defining transformation in other projects. On the website of the "Social Transformation Project" transformation is defined as:

> *"Transformation is **profound, fundamental change**, altering the very nature of something. Transformational change is both radical and sustainable. Something that is transformed can never go back to exactly what it was before".*[11]

The notion that transformation implies profound, fundamental change "in something" is the common sense understanding of transformation. The second part of the definition states an important proposition: that (social) transformations are irreversible. This means that circular phenomena (such as more money be given to social care, followed by less money been given to social care and cycles of tightening control and loosening control) are not transformations. It bears noting that the word sustainable is meant in the sense of being sustained during time.

On the UNESCO website social transformation is defined in reference to social systems:

> *"In general, the concept of societal transformation in the social sciences refers to the **change of society's systemic characteristics**. This incorporates the change of existing parameters of a societal system, including technological, economic, political and cultural restructuring. More specifically, this firstly influences productive infrastructure which can bring about new technological changes and new patterns of participation in the international division of labour. Historically, this has meant an alteration of the requirements of global information technologies. Secondly, new structures of economic organization are developing. This may imply a change in ownership rights, as well as in investments, production, distribution and supply. Thirdly, the distribution and use of political power take qualitatively different forms. This involves changes in the structure and performance of state institutions and other bodies of decision-making and control. Finally, a society's value-normative system can change, often in a way that allows the emergence and stabilisation of pluralist institutions".* [12]

[11] Quoted from http://www.stproject.org/wp-content/uploads/downloads/2013/10/What_is_Transformation_2.0_LowrRes.pdf

[12] Quoted from http://www.unesco.org/new/en/social-and-human-sciences/themes/international-migration/glossary/social-transformation/

The IPCC defines transformation as:

> A change in the fundamental attributes of a system, often based on altered paradigms, goals, or values. Transformations can occur in technological or biological systems, financial structures, and regulatory, legislative, or administrative regimes[13]

According to Frances Westley a social system transformation occurs when there is a change in the Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system. This definition is grounded in a reading of structuration theory and has the advantage of having clear evaluation criteria. This scheme of Frances Westley (which is relatively simple) provides a starting point for us in resolving a set of dimensions of transformative change (relevant to research on social innovation) and we will also develop our own as the project proceeds based on both our own theoretical framework and empirical observations.

A transformation does not need to imply a fundamental change in everything. The diversity of society and inertia to change precludes a transformation in everything. Men-women relations significantly changed in the last century, but women still assume a greater role in the raising of children. By engaging in careers and paid jobs, women have become more like men but their self-identities haven't changed completely. Any society at any time harbours a great variety and continuity with the past, which means that social transformations are something of kind and degree (scale). By definition, there should be a fundamental change in something, where the "something" can refer to several things: a social entity (an organization or a societal subsystem (health care, education, social security areas etc.) and to specific *elements* therein. Since in reality, we will never observe or get to see a fundamental change in every respect, the definitional issue is <u>when</u> do we speak of a *transformation of a system (second-order change)* and <u>when</u> do we speak of a change *within a system (first-order change)*.

To answer this question it is useful to distinguish *dimensions* of a social initiative. Relevant dimensions might be conceptualised as:

- Organization: system of responsibilities, legal form of companies, task distribution, internal and external relationships
- Scale of operation and nature of activities
- Basic values and beliefs: the system of values and beliefs and associated criteria
- [social] Practices
- Guiding idea and concepts
- Identities (related to values, beliefs and practices) reflected in stories and metaphors of what the social initiative is about
- Standards for conduct
- Power of the respective actors: "power to" and "power over"

[13] http://www.unesco.org/new/en/social-and-human-sciences/themes/international-migration/glossary/social-transformation/

Refining and crystallising an optimal set of dimensions for describing transformative change will be an ongoing task for the TRANSIT project. Here the important first step is to clarify - *what is it that we think is transforming?* In framing TRANSIT we were interested in what we sometimes called broad *societal* transformations.

In TRANSIT then we are interested in the possibility of understanding broad societal transformations, and we do want to limit our analytical framework to organisational transformations or even system innovations (although these may be part of what goes to make up a broad societal transformation). Fundamentally we are interested then in transformations in the social context (in the broadest sense) within which a SI-initiative finds itself operating.

In conceptualising transformation and scale in the social context we should acknowledge that we are ultimately not dealing with a well-understood complex system. This point relates to slow versus fast variables in the system. Transformations that we posit may be required to address sustainability challenges may require transformations in slow variables in the social context (such a deeply held cultural norms and values). History and non-linear systems theory teaches us that these may be very slow to change generally but that there can be abrupt changes. Even with a reflexive research approach, the theory of change that informs our work is conditioned by currently domain ways of thinking and worldviews, and the way that sustainability transformations emerge may eventually follow different patterns to those we consider possible in our analysis. This point is important not least because some of the initiatives that we studying (such as some of the participant communities in the GEN) are indeed guiding their actions based on alternative theories of change, which differ fundamentally to a western scientific worldview.

Instead of defining transformation as a new state, transformation may be defined as a process, i.e., as a phenomenon of society undergoing a persistent influence. An example is the world becoming more networked, which appears to be happening, driven by advances in ICT, the rise of platforms for social interaction and ICT-based forms of interactions via facebook and LinkedIn becoming a normal thing for people to do. In a transformation, a new normal is rising. The new normal may be encompassing or specifically situated (in a social domain), it may be replacing something else or co-exist with the old normal. Transdisciplinary science co-exists with disciplinary science. It has been growing but cannot be expected to completely replace disciplinary science. Its status has increased and it has established a place of its own, which means that it has become an option “on the menu”, which is recognised by students, researchers, funders and partners interested in collaboration with university researchers. Patient-centered care co-exists with specialist-centered care with special procedures for seeing a specialist. Instead of having access to a team of specialists, who collaborate, in a specialist-centred system of care, the patient has access to one specialist, who is specialised in treatment. The system of specialist-based care is being reproduced and by medical education, the specialists themselves, funding being based on treatment instead of cure, lack of opportunities for receiving care in a more patient-centered way, and by society (not everyone but a large part, including the bulk of patients) somehow accepting this. We are far away from a transformation in systems of care and science, but there are transformative impulses. In TRANSIT, we are interested in the transformative impulses and the processes and conditions for a transformative type of change to occur.

The label transformative is best applied in a *process sense*: of an open, emergent phenomenon. Returning to our example of specialists, it seems unrealistic to expect that specialists will disappear, but their role in the system of care may be adjusted for certain types of care. In the Netherlands, there has been a change from treating eldery people in special houses, to a treating them at home for as long as this is possible, with the care being provided by home care workers. The home care workers may be self-employed people or work for small or large organisation. About half of the people work for Thuiszorg Nederland which does not use managers but is based on self-organisation of the workers, who meet in small groups to discuss and organise their work. Patients and family members are actively involved in discussions about the care provided. Self-determination is realised at two ends and is a possible model for other forms of care and for work more generally. An important facilitating factor is the personal budget that patients for paying the costs of home provided care. The motivation behind it is the (latent) demand for self-determination, which has been and acted upon. Transformations are cross-sectoral phenomena and can only happen thanks to the multiplicity of structures, the transposability of schemes, mobilisation of resource, new interpretations, and the intersecting of structures in terms of schemas (rules) and (Sewell, 1992). Reissig makes a distinction between evolution and transformation, where transformation relate to societal change and evolution to the self-transformation of the system under consideration. All transformations have emergent properties. They may even go unnoticed because the elements are disparate and unconnected (which seems to be the case in the social innovations we studied). It is only when particular processes get political attention that their visibility and power for transformation increases. The increase in visibility may come from the actions of key individuals from those sectors, from observers who write a book about it, which is picked up by media in various ways (interviews, commentaries, infotainment talk shows), and the agenda of external actors. In the UK, the Office for Civil Society has been established to promote the voluntary, community and social enterprise sector to shift services from the public sector to the social sector by 1) making it easier to run a civil society organisation, such as a charity, social enterprise or voluntary organisation, 2) getting more resources into the sector - both time and money, and 3) Making it easier for civil society organisations to participate in public service delivery. Community work is also supported by companies through corporate volunteering programmes and models of shared value creation. Social innovation activities start getting interpreted in broader terms both by the actors involved and other actors. In the UK, the leaders of Time banks see themselves as contributing to a social economy as a viable alternative to capitalism. Such interpretations are subject to hype but also has a performative function.

Propositions about social transformations have been formulated by Rolf Reissig (2014). According to Reissig, a ttransformation - as a specific type of social change - is marked by the following features and peculiarities (2014, pp. 53-54, original italics):

- Transformation is a process of *destruction*, which is followed by the re-constitution of types of social order, of types of socio-economic and socio-cultural development patterns. Transformation is therefore especially a multi-dimensional, complex social change process, a processual change of structures, institutions, cultural signification patterns, and ways of life (compare also Grin et al. 2010, 11).

- Transformation is characterized by an *interplay of intended*, interposing, long-term and contested processes of fundamental societal change and reorganization, as well as *auto-dynamic*, evolutionary, non-manageable search-, learn- and experimentation processes. Both sides – process and action – can take on different degrees of traction in specific cases of Transformation. Transformation thereby differs from societal transition processes that take place in a primarily managed (transition), or non-managed, evolutionary way.
- Transformation is typically evoked by *endogenous causes*, sources, impulses, events: economic, social conflicts, crises, and tension lines. These appear to a significant degree as results of profound contradictions between new societal challenges and traditional political, economic, and social structures and development patterns. They further manifest in controversial societal discourses, social actions, and socio-political confrontations between different and antagonistic actor coalitions, as well as hegemonic societal constellations. Besides endogenous causes, also *exogenous impulses, events* can gain considerable traction for Transformation processes.
- Transformation as a transfiguration process of types of social order can occur in a *diversity of forms*, which oftentimes also appear as combinations: as directed and undirected, ordered and unordered transfiguration, rather gradual or more eruptive, as convergence or collapse, from below or from above. Characteristic *patterns*, or variants of societal transformation entail, on the one hand, the reconstruction of existing, and on the other hand, the construction of new, alternative regulatory systems, institutions, structures.
- Transformations proceed in *varying time scales* – depending on the depth of the transfiguration to be accomplished and of the given power and force constellations. However, radical ruptures that occur suddenly and within short time frames are not so much typical for transformation processes in today's capitalist societies; but rather "a type of change that is *slow and transformative at the same time*" (Streeck/Thelen 2005, 15). As a result of numerous gradual transformations that encompass a longer time span, more substantial, deeper reaching, sustainable societal changes can arise, which do not imply an extended reproduction of the prevailing conditions.
- Transformation is a *contingent, open developmental process*, despite assumptions about the future and normative visions of actors. As results of a transformation, therefore, both a new, future-proof type of social order and socioeconomic and sociocultural development is possible, as well as a compromise (Hybrid) or even phases of societal stagnation, of breakdown and regression (compare also Eisenstadt 1982).
- The following can count as general *indicators of a new developmental type*: changed societal framework conditions that cannot simply be reversed, the establishment of new core actors as carriers of the new developmental mode, the institutionalization of substantially different, alternative and future-proof rules and structures (compare also Dolata 2011, 152f.).[14]

[14] Rolf Reißig: Transformation – a specific type of social change. An analytical and social-theoretical conceptual design. In: Brie, M (ed), 2014. *Futuring. Perspectives of Transformation in capitalism and beyond*. Westfählisches Dampfdepot), pp. 53-54.

The characteristics are best viewed as postulates, which we can use and test in TRANSIT. The part about indicators is interesting in drawing attention to the need for rules and structures to be future-proof. The future-proofness may be used as a belief-based strategic argument by those who want to change a particular change in rules and structures and (a possible "evolutionary" result. The above discussion of the features draws attention to the element of destruction as well as to the different forms a transformation can take (directed and undirected, ordered and unordered transfiguration, rather gradual or more eruptive, collapse or convergence, from below or from above). The dichotomies (directed, undirected etc.) are unlikely to be observed in reality and best considered as matters of degree. It seems that indeed for a process of change to be transformative, there must be an element of destruction which will show up in anti-narratives and anti-change spoke persons. The anti-change element should not be expected to go away but is likely to exist and even constitute a prominent element of society. Transformative means that a "new normal" is emerging. The new normal is likely to have less transformative forms.[15]

It is a matter of interpretation when something counts as a social transformation and when not. In general, a change in one dimension only does not count as a social transformation. There have to be changes in several aspects simultaneously, not just in one place but widely across society. This usually takes time and effort. The changes must be related to one another and they must have **sufficient scale**: i.e., at the level of societies (nations and beyond). It should go beyond changes at the level of the energy, mobility and food sectors and concern changes in work and life practices and changes in beliefs, duties and forms of association. It is easier to say when something is not a transformation than when it is. We should not expect the change to be so fundamental that everything is being changed. In the great transformation studied by Polanyi, based on the principle of commodification of goods and services, certain things remained untouched. In the family sphere for instance parents and children do not charge one another for services and the same holds true for friends. The emancipation of women did not fundamentally change the roles and cultural identity of men and women. In the last 50 years or so, it is being accepted more or less that women continue to work after getting children, use anticonceptives and engage in personal careers, but at the individual level people may encounter resistance to this from their social milieux or feel an inner resistance to this by themselves. It is difficult to draw the line as to when something is a transformation and when it is not. Rather than drawing the line based on some kind of majority criterion (such as a value and idea which is shared and acted upon by at least 50% of the population), it is better to define transformations in terms of society undergoing a persistent, irreversible influence across society (with some "places" being more affected than others).

In the TRANSIT paper developed for the Game Changers workshop in Rotterdam (*Game changers and Transformative Social Innovation: The case of the Economic Crisis and the New Economy)* the following discussion was offered about **societal transformation**:

[15] In any transformation, we will have transformative forms, less transformative forms, non-transformative forms and counter-transformative forms (going in the other direction). We should never forget that the old way of doing things has served people well and has acculturated them.

> We conceptualise societal transformation **as *fundamental, persistent and irreversible change across society*.** It is distinguished from system innovation in that societal transformation exceeds individual sub-systems. Examples are the industrial revolution, European integration, or the rise of the market economy and the ideology of economic liberalism, as described by Polanyi[16] in *The Great Transformation* (1944)[17]. Such societal transformation requires *simultaneous change in multiple dimensions (not in only one dimension) of social systems, with these changes occurring widely across society (not in only one place).*

To us, the definition of a transformation of a fundamental, persistent and irreversible change across society is a useful definition. As such, the concept of 'societal transformation' is distinguished from the concept of 'transitions'. In transition research, the notion of 'transition' is often used to refer to a specific type of change *at the level of (socio-technical) sub-systems*, i.e. what we here refer to as 'system innovation'. Hence the fundamental reason why it is important to not frame TRANSIT solely in terms of the MLP, is not only to do with contrasting meta-theoretical perspectives but with the fact that the resolution of scale in the MLP was originally developed to capture process of regime-shift in technological or socio-technical 'systems' whereas as in TRANSIT we are interested also in potentially much broader (or deeper) shifts in the make-up of the social context. Hence the analysis of the role of social innovation in processes of technological regime-shift may be part of what is studied in the TRANSIT framework, but it is not limited to that.[18]

In subsequent work, we have proposed to specifically frame the project in terms of transformative change which is understood in terms of a fundamental, persistent and irreversible change in the social context. This avoids the need for us to get embroiled in a discussion of what society might be. We use 'transformation change' then to refer to a more

[16] Karl Polanyi has coined the term "the great transformation" to the rise of the market economy in society, together with the ideology of (economic) liberalism and the use of the gold-standard to extend the market internationally, resulting in inequality, relationships of exploitation and a lesser role for moral considerations, community management and religion (Polanyi, 1944).

[17] Other examples of societal transformation are: female emancipation, abolishment of slavery, rise of the welfare state, secularisation, individualisation, democratization.

[18] We should note that the terms "system innovation" and "transition" are used in narrower and broader ways that is just stated. In Grin et al. (2010, p.4) transitions are said to go beyond system innovations and individual (sociotechnical) systems: "*System innovations are profound transformations in social systems, such as private transportation, river management or pig farming. Profound transformations involve, by definition, changes in established patterns of action as well as in structure (which includes dominant cultural assumptions and discourses, legislation, physical infrastructure, the rules prevailing in economic chains, knowledge infrastructure and so on). Transitions transcend individual systems. For instance, the transition of the domain of agriculture involves system innovations in different livestock and crop production systems, as well as their interactions. An example at a higher level of aggregation is the transition of the agrofood domain as involving more sustainable consumption patterns, other distribution and changes in agricultural production systems; or the transition of rural areas, involving interacting transformations of rural water management, spatial planning, agriculture and nature management. If transitions thus comprise various system innovations, which system innovations are taken together as constituting a particular definition is an analytical choice (the choice for a particular unit of analysis), and as such it is contingent on the context of analysis. Transitions are the result of a co-evolution among economic, cultural, technological, ecological and institutional developments at different scale-levels and cover a long-term period of about one or two generations*".

fundamental change at a higher level of aggregation: i.e. 'societies' rather than functional sub-systems.[19]

In terms of TRANSIT's overarching conceptual framing then we understand transformative change as a fundamental change in the social context (and as a next step we could say in the social-ecological context…) and this can be resolved in terms of a set of dimensions. Of which those proposed by Frances Westley (see above) can provide us with a starting point, but we will develop our own in TRANSIT.

In general terms, we hypothesise that 'transformation change' can be understood as *an (emergent) outcome of co-evolutionary interactions between changing paradigms and mental models, new political institutions, new physical structures and innovative developments on the ground*.

This suggests that social innovations driven by values of building cultures of trust, self-determination, socially relevant science, increasing resilience, solidarity and uplifting of marginal people only become transformative in combination with other types of change in the form of system innovation in state welfare systems, changes in science and changes in the working and living.

In terms of TRANSIT's conceptual heuristic (as developed in Avelino et al 2014), we postulate that 'transformation change' results from a specific interaction between game-changers, narratives of change, system innovation, and social innovation, as distinct but intertwined dimensions of innovation and change (see figure 1 in previous section). We refer to this interactive, co-evolutionary process as 'transformative social innovation'. And this will be discussed in X.X while next we address how coevolution is conceptualised in TRANSIT.

[19] In recent years, some transition scholars have argued that 'societal transitions' also 'transcend individuals systems and comprises various system innovations at different scale-levels and over a long-term period of time' (Rotmans and Loorbach 2010). In that case, a societal transition can be distinguished from a societal transformation in the sense that a transition can be considered to be a specific form of transformation. A transition is defined as radical change that follows a particular non-linear path, typically over a period of one to two generations. Such societal transition can be considered a type of societal transformation. However, not all societal transformations necessarily follow such a transition path. As such, societal transformation as a concept is broader than the concept of societal transitions. Interestingly, Reissig (2104, p. 54) uses the term transition for a managed societal change process: "Transformation should […] be distinguished from transition. We refer to transition, when talking about a change in political-institutional order, or regimes, which takes place as a steered process by active actors. Transition, as institutional adoption, characterized particularly the transitions from authoritarian capitalist dictatorships to representative civil democracies in southern Europe, Latin America, and Southeast Asia between the 1970s and 1990s. In political science terms, the concept Transition has acquired its meaning through an international research project on "transition to democracy" in the 1980s (O'Donnell/Schmitter 1986)".

6.2 Co-evolutionary dynamics in TSI

How we define coevolution in TRANSIT

We identify interaction processes between actors and developments as being key in the development of the field of social innovation and wider changes systems of assemblage. The larger scale patterning in the relationships between social innovations, systems innovation, game-changers and transformative change depends on processes of mutual co-production, co-shaping or co-evolution that link variables across different scales and that crucially, result in mutual processes of influencing that lead to changes in the makeup and functioning of the interacting parts, and this leads to further complex changes in the subsequent dynamics – in essence it is this type of pattern that we aim to get at in using a concept of coevolution. Building upon a well-established foundation in transition studies we make use of a concept of coevolution to describe how components and sub-systems interact and influence each other, resulting in complex dynamics and identifiable patterns.

Co-evolution is a special type of interdependency between evolutionary processes: process *A* influences but not determines processes *B* and *C*, which in turn influence but not determine *A*, although both A, B and C change irreversibly. The different units of evolution enjoy relative autonomy in development (Kemp et al., 2007). In the literature on societal change different types of co-evolution have been noted: supply and demand (Nelson and Winter, 1982); technology and users (von Hippel, 1988; Leonard-Barton, 1988); technology, industry structure and institutions (Nelson, 1994, Rosenkopf and Tushman, 1994); technology and society (Rip and Kemp, 1998). There is also the co-evolution of ecology, economy and society (Norgaard, 1984; Gowdy, 1994).

A co-evolutionary view is premised on the idea that there are *cause-effect-cause* loops across different scales and systems, with effects becoming causes of other developments ('positive feedback' in systems terms). A good example is the use of cars, which facilitated travel and urban sprawl, which in turn increased the demand for cars. Not every type of interaction should be called co-evolution. Strictly speaking, co-evolution occurs when two evolutionary processes of variation-selection-retention are interlinked (van den Bergh and Stagl, 2003) but a less restrictive view speaks of co-evolution when developments in different subsystems are interlinked *and* partially independent (in the sense of having a relative autonomy) . The different processes mutually influence each other, but do not determine each other.[20]

[20]From Kemp, R., D. Loorbach and J. Rotmans (2007) Transition management as a model for managing processes of co-evolution for sustainable development , The International Journal of Sustainable Development and World Ecology (special issue on (co)-evolutionary approach to sustainable development) 14: 78-91.

How we make use of a co-evolutionary framing TRANSIT

As mentioned above, we are interested in the ways in which a 'transformative change' can be understood as an (emergent) outcome of co-evolutionary interactions between changing paradigms and mental models, new political institutions, new physical structures and innovative developments on the ground. The idea is that we can describe particular pathways or journeys that involve processes of competition, negotiation, contention and legal and political fights resulting in specific outcomes and changes in various sub-systems. The word co-evolutionary is not used in an absolute sense of processes of variation have selective pressures on each other, but in the sense of their dynamics being coupled in an important way. It is hypothesised that knowledge of ongoing coevolutionary dynamics and foresight may influence their strategy and resultant agency. The social model of co-evolution is to be distinguished from the biological model of evolution where variation is blind and environments largely unalterable.

An ongoing task for TRANSIT is to a) identify exactly what sub-systems are most usefully resolved in the context of different transformative change processes, and b) to further specify the mechanisms,[21] patterns[22] and processes involved in the interactions between these sub-systems. As described above the idea is that for the co-evolution metaphor to be useful the sub-systems should mutually influence each other but not wholly determine each other. As a transformative change process starts such sub-systems are hypothesised to go through a period of relative alignment followed by the generative of instability and dis-alignment. This can then lead to a range of *interactions*, including:

- **contestation and conflict**
- **cooperation versus competition**
- **capture, retreating and merging**
- **Absorption/assimilation**

The outcomes of these interactions have emergent properties and are an important element in the (co-evolutionary) dynamics, in acting as stepping stones for further change. Different pathways are not only possible but also likely to emerge.

Interestingly, we can hypothesise that social innovations may play a role in the initial de-alignment process and/or be involved in subsequent (coevolutionary) interactions.

A next task then is to refine this list of mechanisms specifically for SI and TSI….

What this means is that, we need to identify the opportunity and the 'mechanisms' through which social innovation could lead to transformational change. The bottom line here is that whereas it is difficult to change the existing system it is possible to build up an alternative system

[21] A Mechanism is the type of interactions that we observe between interacting (or co-evolving) parts of the overall societal system

[22] A Pattern is a sequence of (coevolutionary) interactions over time and space; a co-evolutionary pattern over time and space can also be called a transformative narrative or pathway and will normally have a plot, timeline and set of actors associated with it.

that can operate first in parallel and then compete with the existing systems and take over their functions. The existing societal system is characterised by systemic interdependence, which limits the scope for change WITHIN the system, as any change for the better in one subsystem may cause pain somewhere else. Systemic interdependence limits the degrees of freedom for change within the prevailing system.

Importantly, however, the moment a parallel system begins to be built that offers new and alternative ways of fulfilling functions this begins to create scope for further change. For example, policy makers are constrained in introducing policy aimed at reducing unsustainable consumption today because this would impact adversely on the public welfare system. If there was an alternative welfare system this would no longer be such a constraint. The link between reducing material consumption and reducing welfare in that situation is no longer so strong. So the creation of a strong parallel welfare system through social innovation not only provides new and potentially better modes of creating welfare (direct change at a system level), it also creates room for manoeuvre – degrees of freedom – throughout the pre-existing societal system (indirect change potential at the level of the overall societal system).

In addition, we need to think about the implications of an emerging set of parallel (or shadow) systems that could ultimately create a social (sharing) economy that parallels the market economy, a shadow welfare system that parallels the public welfare system, etc. Interactions between the old and new arrangements could take different directions - separate development, hostile reaction, absorption, hybridisation, etc. - all implying different possible transition trajectories and different outcomes. To analyse this we would need to set out some alternative scenarios describing plausible future states of the societal system. We could then ask ourselves the question: to which kind of societal transformation could this social innovation contribute and (more especially) under what conditions of policy support this contribution could be realised.

An immediate task for TRANSIT is to develop description of a set of (coevolutionary) narratives or pathways about ongoing transformative change processes, likely based on the transformation processes that we observe and hypothesise that our case studies are interacting with. Identified sub-systems will interact with each other, through various actor-based mechanisms, in ways for which we have to develop propositions, which are then a key element of the proto-theory of transformative social innovation. In a second stage, the propositions should be tested out, scrutinised and adjusted and complemented with other propositions, based on further observations of actual TSI processes. It is worth noting here then that most work on transitions and transformations hitherto has failed to offer co-evolutionary account of the pathways and processes of change.

Resolving social innovation in co-evolutionary dynamics

At the broadest scale then, we seek to resolve co-evolution between different processes of change in society including (processes of): **transformative change, systems innovation, TSI,**

'game changers' and narratives of change (following Avelino et al. 2014). Within this broad framing we can begin to articulate the specific interactions we resolve and study in TRANSIT:

Firstly, **we are interested to identify the specific societal sub-systems that social innovations are engaged with**, and the associated innovation, transition and transformation processes. **We are also interested to identify and map where social innovations are building parallel or shadow systems** that may still involve significant interactions with incumbents (e.g. alternative welfare provider working with the NHS) or may be relatively unconnected to incumbents (e.g. certain Eco-villages)

Secondly, **we are then interested in the ongoing co-evolutionary dynamics between these societal sub-systems including the interactions with social innovation networks.** Recognising that social innovation may sometimes be engaged directly in trying to innovate existing structures and institutions, or may in other circumstances be engaged in building parallel structures and institutions; though in almost all cases this will be partial as some aspects of existing institutions will still influence and constrain the emerging parallel system. We are interested in how societal interactions are constituted and 'game-changers' and 'processes of transformative change'. Social innovations may potentially be engaged in changing any societal structures, including: markets and industry structures, social practices, norms, values cultural preferences and beliefs, other forms of institution, including governments and governance practices. We are interested in the relationships (whether synergistic or antagonist or accommodative, etc) the coevolutionary dynamics that may result from conflict, contestation, capture, and assimilation or merging; we are interested in the role that agency plays here both in the actions of social innovations and those of incumbent players. In fact although we use the term 'incumbent' here we recognise that there is usually a range of actors who are further to or closer to 'power' in different ways, and interactions between these creates dynamics that influences transformation processes. Actors come with different identities in this and societies have certain values and meanings associated to different identities (being women or men, poor or rich, on the left or on the right, sustainable or not etc.). So we are also concerned to resolve the dynamics and politics of identity and their role in contestation and power struggles in contemporary societies. The engagement of social innovations in niche-regime dynamics can be considered as a particular example of these interactions. And the social innovation may play a role in either the niche or the regime formations.

Thirdly, **we are interested to identify the networking between social innovations**; the interactions between collections or 'ecologies' of social innovations; and between social innovations and other 'forces for change' including social enterprises, social innovations, social movements and other civil society assemblages and informal or formal partnerships with business or state actors.[23] And also the dynamics between 'transformative' versus 'co-opting' SIs[24]; we are interested in TRANSIT to explore whether there could be said to be an emerging social innovation field in Europe (and elsewhere) at this time, and if so how it is

[23] There is a link here to the governance work and idea of 'ecologies of SI' (Pel & Bauler 2014).

[24] Or between transformative and 'co-opting' SIs (Pel & Bauler 2014).

constituted. How it relates to regime and institutional processes, and the extent to which it (dis-)empowers individual social innovations.

Fourthly, **we are interested in the interactions (and possible co-evolutionary dynamics) within and between different social groups present in society**, and especially between social groups that occupy fringe versus incumbent positions in society and the processes of contestation and power dynamics that may (or may not) result. Such social dynamics can form and influence social movements and change the 'social and cultural backdrop' in which social innovation takes place. They can also influence how 'citizens' engage with different social innovations and the relations between social innovations and 'users'[25]; such dynamics ultimately lead to changes and transformations over time in culture and norms, values, and worldview, and in this way it is possible to conceptualise a coevolutionary dynamic between worldviews and societal transformation that is mediated by social movements and the coevolutionary interactions of social innovation 'ecologies' with incumbent regimes and structures.

Path dependence, momentum and lock-in

How does agency fit into this framing of co-evolutionary processes of change? As mentioned in section 2.1, we incorporate a structuration perspective into our framing of a co-evolutionary dynamic (in an analogous manner to the MLP). This idea of the 'duality of structure' helps us to understand that the component parts that go to make up each sub-systems (institutions, organisations, groups, individuals… but also institutions, artefacts and technological systems) can be understood as being constituted through varying patterns of structuration. Actors involved in a particular sub-system are both constrained by prevailing structures (/institutions) and have the possibility to exhibit agency that may be directed at changing those structures and/or influencing the unfolding co-evolutionary interactions with other sub-systems. And actors may of course be engaged in more than one sub-system (cf. intermediate projects, Smith and 2007, or hybrid forums Elzen et al 2012 in transition studies).

In combining a structuration perspective with coevolution, we understand coevolutionary processes then as an emergent dynamic of differing social-institutional structures interacting and influencing other, this represents an inherent non-linear dynamic of change in society at any point in time, and has a momentum and path-dependence, that extraordinary intervention is required to change.

Instabilities may be inherent in the dynamic of a set of interacting societal sub-systems, and we note the insight from resilience studies that it is often cross-scale dynamics involving the interaction of 'slow' and 'fast' variables over time and space that defines the ultimate fate of

[25] This includes not only the idea of co-evolution with 'user preferences' but also co-evolutionary dynamics leading to the emergence of 'new functionalities' or to users engaging with novel social practices; but noting here that some 'social innovations' aim to actually subvert traditional distinctions between producer and consumer, as with e.g. Community Supported Agriculture schemes; Bonno comments - SI is often understood to be about blurring institutional boundaries (Nicholls & Murdock 2013) – 'users', 'citizens' 'consumers' then become less adequate actor categories. And possibly 'zombie categories' for TSI theory.

the system. So this introduces a notion of partial-determinacy that is not quite the same thing as a classic structural perspective but rather relates to the possibility of lock-in and path dependence in the coevolutionary dynamic underlying a transformation process. So this needs to be taken into account in interpreting observed transformation processes and further developing this framework for TSI. Of course, individuals and/or collectives may provide agency that tries to influence the momentum inherent in such coevolutionary processes, as actors choose to more or less faithfully reproduce existing structures, or to purposefully 'resist' in some way, or try to directly attempt to create novel relations, rules or practices.

Towards indicators of transformative changes 'in progress'

A task for the next stage of development of this Framework for TSI is to conceptualise and develop some indicators or 'signs' that transformative change processes might be underway in a particular empirical context. Two starting points in this task are i) the study of processes of institutionalisation and how social innovations may both influence these and themselves be caught, even subsumed, in process of institutionalisation, and ii) the simple analytical framework that Frances Westley develops based on looking at whether a social innovation has ambitions and/or outcomes of systems change in terms of influencing: Authority, Resource Flows, Basis routines/practices, Belief patterns, or External rules.

6.3 Scale in TSI dynamics

Resolving scale in processes of transformative change

As already mentioned for changes to be considered *transformative* they must in some way have sufficient scale. In the framework for TSI, we start with the theoretical position of a relational coproductive framing which acknowledges that what are sometimes understood as 'hard wired' scale relationships in the social context are in fact being continuously co-constructed and coproduced by social actors. Scale relationships are thus the result of (often) contested and political negotiations and interactions. This is a crucial point because it means that as social innovations engage in processes of transformative change, scale relationships may also change and be transformed (change either incrementally or fundamentally). And this is of great interest in developing a theory of TSI, because we can speculate that in working to change, subvert, shift scale relationships social innovation strategists may find powerful ways to influence change.

Previous work of Frances Westley on systemic social innovation

One important precursor is the work of Frances Westley and colleagues (Westley et al 2014, five configs paper) that have pioneered a systemic approach to social innovation research. Frances distinguishes between scaling out versus scaling up: to a first approximation scaling out, relates to increasing the size and/or spread of the social innovation (by replicating it in new locations, increasing memberships, turnover, etc) while scaling up relates in addition to the social

innovation interacting with the 'regime level', with institutional change, and/or with whatever is required to bring about systemic change.

According to Frances Westley a social system transformation occurs when there is a change in the Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system. In terms of the language we are developing in the framework for TSI then, what Westley has done here then is to take a particular way of 'dividing up' the structures that make up the social context and then note that systemic change can be said to have occurred if there is a change at 'sufficient scale' in any one of these aspects/dimensions. So this raises two important questions for us in TRANSIT, namely I) How do we choose to divide up the structures in the social concept? And, 2) What do we judge to be a 'sufficient scale' of change for us to class it as a transformative change?

Previous research (by Frances Westley et al.) has illuminated how the strategies employed by social innovation initiatives and networks include both strategies for both 'scaling out' and 'scaling up' where the former implies a growth and replication, while the latter implies interactions aimed intentionally at achieving systemic change. TRANSIT aims to develop a new approach to resolving scale in social innovation as the project progresses. Social innovations may engage in three types of scaling process: geographic scaling (diffusion, replication or translation to new areas) quantitative scaling (e.g. growth in membership or 'turnover') and scaling in/of the 'social context'. The third type of scaling is most clearly related to transformative change. According to Frances Westley a social system transformation occurs when there is a change in the Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system. This definition is grounded in structuration theory and has the advantage of having clear evaluation criteria. This scheme of Frances Westley (which is relatively simple) provides a starting point for us in resolving a set of dimensions of scale relationships in transformative change. We will further develop our own set as the project proceeds based on the framework for TSI and our empirical observations.

Frances Westley et al. (2014; 'five configurations' paper) provides an illustration of the sort of mapping of 'configurations and pathways' that we might identify for the TSI cases in TRANSIT. Their 'table 3' is reproduced here and summarises them. The term 'configuration' combines the idea of a specific strategy for achieving systemic change employed by a social innovation in a specific social context, this then leads to a particular co-evolutionary narrative or pathway unfolding over time and space.

Any eventual description of the stages of TSI that we develop in TRANSIT will be informed by this observation by Frances Westley and others about the actors in a social innovation going through an important transition from being 'social innovators to 'institutional entrepreneurs'. This might happen as a gradual shift or there may a 'light bulb' moment. Furthermore, based on extensive empirical examples, Frances makes the observation that making this transition is often an 'Achilles heel' for developing social innovation initiatives – that is many fail to make this transition successfully. It is worth quoting at length here how Westley et al (2014, p254) summarise this shift:

> *"Unlike social entrepreneurs who create a new idea or product to satisfy unmet needs (Leadbeater, 1997), institutional entrepreneurs not only introduce an*

innovation, but also manage the broader context "in such a way that the innovation has a chance to flourish, widening the circle of its impact" (Moore & Westley, 2011, p. 4). In seeking broader institutional change, institutional entrepreneurs aspire to cross scales and move social innovation from one level to another, in contrast to social entrepreneurs whose efforts are mainly contained within one scale (e.g., transform neighborhood or community). To do this effectively, institutional entrepreneurs require a broad range of capabilities such as cultural and social skills (cognitive, knowledge management, sense making, convening), political skills (networking, advocacy, lobbying, coalition building), and resource mobilization skills (financial, social, intellectual, cultural, and political capital (Moore & Westley, 2011; Westley & Antadze, 2010). Cultural and social skills enable institutional entrepreneurs to recognize emerging patterns and sense the moment when change is possible, as well as to discern which innovations have the potential for institutional change. Political skills help institutional entrepreneurs to recognize and mobilize relationships that could help advance social innovation to the upper scales. These relationships are strategically built in order to communicate social innovation in an accessible and engaging manner and be ready to shift it to a higher scale when an opportunity emerges. Last, resource mobilization skills enable institutional entrepreneurs to seek and leverage needed resources (Moore & Westley, 2011)."

Table 3. Five Configurations for Scaling Up Social Innovation.

	Approach to change	Strength	Challenge	Pathway for scaling up	Risk
Volcano	Occurs from learning and experimentation	Inclusive and participatory organizational culture	Defining strategic focus	Centralization of the strategy	Lose ability to generate the energy and excitement within the organization
Beanstalk	Initiated by a visionary and implies implementation of their strong vision	Consistency and drive	Scarcity of resources to respond to opportunities	Finding a patron or venture social capital	Leave behind the original design and some of the energy around the movement
Umbrella	The initiating organization stimulates emergence through funding	Introduces system-level goal at an early stage	Lack of ownership, poor integration, absence of a visionary	Challenge the concept of partnership and "think like a movement"	Push partners beyond their comfort level
LEGO	System change starts with community change	The emergence of new local networks and partnerships, building on existing assets	Connecting place-based strategy to broader policy/ economic change	Creation of strategic conversations to consolidate elements at a higher level	Hinder active dissemination of principles and ideas
Polishing gemstones	Refining and selling more of a good product (controlled replication)	Gives credibility, legitimacy, and reputation to the organization	Short-term managerial thinking in a complex problem domain	Potential partnership with a system-focused movement or organization	Lead to a loss of quality control

Developing a relational concept of scale

The framework for TSI adopts a relational framing - scale relationships are understood not as rigid structures of the social context (which might be 'scaled' like one would climb a ladder) but as the products of social interactions, that are continually co-produced by social actors and collectives: scale relationships therefore change as the social context transforms. Furthermore, social innovations actors, might deliberately and reflexively attempt to influence and alter scale relationships in ways that work to their advantage. Indeed it is precisely this property of the social context that means that at certain points in history beliefs, rules, and structures that were considered to be deeply stable can be suddenly and rapidly transformed.

The term 'scaling up' has been used extensively in the social innovation literature, but we consider it to be misleading for two reasons: Firstly it implies a solid hierarchical structure, when actually scale in the social context is co-produced and there are opportunities for social actors (e.g. strategist in social innovations) to resist or subvert or otherwise 'play' with the ways that 'scale' relationships are co-produced. Secondly, in processes of 'scaling up' the social innovation itself may be altered in significant ways. Indeed some social innovations may perceive this as a threat and resist 'scaling up' activities, while others may realise too late that they have lost something important in the process of scaling up. We can further hypothesise that some social innovations may realise the dangers of 'scaling up' processes but find ways to 'subvert' them. Indeed this may turn out to be a key quality of social innovations that are successful in influencing transformative change.

Moore et al. (2015) develop the notion of 'deep scaling' to describe situations where SIs intentionally and reflexively try to change highly stable, fundamental rules directly. Social innovations may also employ 'scaling up' strategies to interact with and influence local and/or meso-level rules and structures with the vision/ambition that transformations in 'deep rules' will be emergent.

Societal transformations may be associated with changes in highly stable 'structural complexes' that can exhibit great resistance to change. Giddens, but also social innovation researchers such as Frances Westley refer to the notion of 'deep rules', implying that transformative change is associated with changes in 'deep rules'. Transformative change may be associated with changes in institutions and structures that have been deeply stable over time and space, to the extent that they may be almost completely unchallenged in particular society at a particular time.

Patterns of 'lock-in' and 'lock-out' may be important in constraining/enabling processes of transformative change. In general terms the 'logic' of the current way of doing things tends to be perpetuated over time and space, even in the face of evidence, feedbacks, symptoms and protest/resistance and demonstration of viable alternatives. Therefore in developing TSI theory, it is important to develop descriptions of viable coevolutionary pathways (or coevolutionary narratives) that describe how 'lock-in and 'lock-out' effects are overcome. It cannot simply be assumed that social innovations support transformative change processes, social innovations may also act to reinforce existing 'logics' or an existing regime, and be part of maintaining the stability of existing structures over time.

Three different types of scale relationship

Felix Rauschmayer (pers. comm. Insert reference to his paper on scaling when we have it) has recently conducted an excellent literature review on different approaches to and understandings of scaling in research on niche-regime interactions in transitions processes. He identifies three notions of scale that are commonly in use, namely: Multi-Level Perspective; Geographic scale; and, Quantitative scale, by which he implies where scaling is used to simply imply scaling in the 'size' of a social innovation. For our purposes we can broaden this framing somewhat as follows:

1) Scaling change in the 'social context' (institutional and structural transformation):

- deepening and broadening (Van den Bosch and Rotmans 2008)
- social system transformation occurs when there is a change in the Authority, Resource flows, Basis routines/practices, Belief patterns, and External rules (posed by law or self-chosen) of the social system.
- Multi-Level Perspective: The scale-levels identified in the MLP is then a special instance of this category. From Felix's review: Niche-regime: Translation (Smith 2007), anchoring (Elzen et al 2012), empowerment (Smith and Raven 2012), scaling up cultures, structures and practices from the niche to the regime (Van den Bosch and Rotmans 2008); Niche-regime + niche-niche: Anchoring (Elzen et al 2012), broadening (Van den Bosch and Rotmans 2008)
- We can add other theoretical resources here also: resilience perspective; framings of processes of institutional change from institutional theory, etc, etc

2) Geographic scale:

- e.g. the Replication of a social innovation to a new location (cf. Seyfang and Haxeltine 2012 on spread of Transition Towns),

3) Quantitative scale:

- scaling in the 'size' of a social innovation such as e.g the growth in membership of the transition town movement (Seyfang and Haxeltine 2012).

What Westley calls scaling out then relates primarily to geographical and quantitative scale. We are interested in such processes in TRANSIT, but we can note that quantitative scaling and geographic scaling in their own right do not represent transformative change. Transformative change requires change in institutions and structures and therefore requires what is term above 'scaling on the social context'. A social innovation will experience multiple institutions and structures. These will vary in 'reach' and 'stability' and both of these concepts need to developed in developing a theory of scale in TSI. It is in this way that we address the question of what constitutes change a 'sufficient' scale (to be considered as a transformative change). There is then a need to identify the strategies that social innovations are using to achieve systemic, institutional and transformative change along these lines. And associated with this the mental model and paradigms and 'theory of change' that they are using to support, justify and frame their strategies. The normative justifications/framings associated with each strategy are a further aspect of interest here.

6.4 Resolving coevolutionary TSI pathways

Developing a set of typologies for describing pathways of TSI

At the core of the theory development activity as we conceive it, is to develop a framework that can resolve the dynamics of transformative social innovation processes over time and space. This framework for TSI, should provide a basis for understanding and explaining how particular empirical examples of social innovation interact with particular transformative change processes. In this section, we bring together the elements of the conceptual and theoretical framing presented thus far, to outline the core components of a framework for resolving the dynamics of TSI – organised around a set of five 'typologies' and three 'lists'.

We begin then by identifying a set of typologies of the key components that need to be resolved in order to describe a coevolutionary TSI pathway. We do this by articulating a set of typologies:

- **Types of social innovation ambition**
- **Types of social innovation strategies for (interacting with) transformative change**
- **Types of interacting 'elements' in a coevolutionary transformative change process**
- **Types of coevolutionary interactions**
- **Types of outcomes (of coevolutionary interactions)**
- **Types of pathways of TSI**

The strategy is to create suitable typologies for each of these elements or aspect of a TSI pathway, and then to start to describe how we think these elements interact in producing the emergent dynamics of a TSI pathway. At this point in the project (month 15 of 48) these typologies are still being developed, and so what is presented below is a 'work in progress'.

Typology 1: Distinguishing social innovations with 'transformative ambitions'.

As discussed elsewhere in the main document, we choose not to develop a complicated typology for social innovations in TRANSIT, we do however need to distinguish between social innovations that have transformative ambitions versus those that do not have explicit transformative ambitions. So this is a start for typology of SI ambition (or vision), as we proceed in the project we may also start to distinguish different types of transformative ambition. It seems that some are more focused towards transforming society in ways that preserve the 'framework conditions' of the current arrangements, while others propose transformative changes that would change basic 'framework conditions at a more fundamental level. Common themes and discourses can also be identified across TSIs such as more or less radical transformative ambitions, the notion of re-embedding being one good example (as proposed by e.g. the bioregional movement and bioregionalism, and as theorised in e.g. the work of Slotterdijk).

Typology 2: Social innovation strategies for (interacting with) transformative change.

Social innovation is understood as a 'messy' process with multiple and complex cross-network interactions. Erik Paredis' detailed study of social innovation and transition processes in Flander's provides a good study of this from which we can learn much. He showed how many individual actors played very different roles at different times (and sometimes at the same time).

Theoretical framings that help us to think about these cross-network interactions variously describe social innovations as being associated with social movements, interacting in social innovation 'ecologies' or co-constituting a 'social innovation field'. SI-actors, SI 'ecologies' and/or the SI 'field' all share the trait that they are (often) transient entities that are (often) really difficult to define. They're constantly subject to enrolment and counter-enrolment – often they're difficult to sustain as coherent groups, in some cases they are even deliberately intended to stay as light, unorganized structures. Nevertheless in order to make sense of all of this complexity and inter-relationships we use the notion of a 'strategy' but it may be that we should see this as relevant only to certain 'types' of social innovation initiative.

In recent research along these lines, Moore et al (2015) identify strategies employed in a small case study sample specifically in the context of scaling strategies to address systemic change. Here we briefly summarise the list of strategies identified in this paper, as a starting point for developing our own mapping of SI-strategies for transformative change:

- **Deliberate replication:** Replicating or spreading programs geographically and to greater numbers while protecting the fidelity and integrity of the innovation
- **Spreading principles:** Disseminate principles, but with an adaptation to new contexts via co-generation of knowledge, leveraging social media and learning platforms: "open scaling".
- **Policy or legal change efforts:** New policy development, partnering, advocacy
- **Spreading big cultural ideas and reframe stories to change beliefs and norms.** Intensively share knowledge and new practices via learning communities, distributed learning platforms and participatory approaches
- **Invest in transformative learning, networks and communities of practice**
- **Seek alternative resources,**
- **Build networks and partnerships,**
- **Broaden the problem frame**

This list is provided as a starting point. In developing the framework for TSI, we should build upon this list, based on our own cases, a further literature review, and dialogue with other social innovation researchers. The hypothesis that we adopt here then and intend to explore in developing the framework for TSI is that: **Strategies guide and connect activity in each of the four dimensions of social innovation and these activities then are involved directly in the mechanisms of coevolutionary interactions.**

Its easy to see many of these strategies present in our batch I cases, so for example, the team researching the Global Eco-village network has noted how they are currently broadening their problem framing, and noting the need to address systemic change in society, by seeking alternative resources and by engaging in policy or legal change efforts. So we can map how these strategies are present in the TRANSIT cases, identify what further ones are observed. We can use the conceptual framework for TSI presented here, to further specify how each strategy might play out and what the enabling conditions and factors involved in a successful implementation of each strategy might be.

The choice and framing of strategies of course are influenced by many aspects of the organisational and psychological dynamics of the social collective that makes up the social

innovation, and so also provides a point of intersection for bringing social psychological approaches and also institutional entrepreneurship and organisation studies approaches into the framework for TSI. In plain language the choice of a particular strategy at a particular time depends on many factors, it is likely the result of a creative process (exhibiting creative agency) but also part a social and negotiated process. What factors affect the choice of a daring and radical strategy versus a more conservative one? How does the development of strategy for a social innovation link to the personal development and 'inner transformations' of the participants involved? (As is clearly understood to be part of the process in e.g. the Transition Towns movement or many Eco-villages). The successful implementation of a strategy will also be dependent on power relations on the skills of SI-actors in understanding (and framing) power relations and working them to their advantage. We also hypothesise that transformation may happen either from inside the system, far away at the fringes/shadow spaces, or somewhere in the middle in configurations of actors and causes. And that the possibilities both for 'thinking differently' and the spreading of new ideas will be different for actors and collectives at different distances from 'centres of power'. So as we develop the framework for TSI we will incorporate ways of better theorising and conceptualising how such power dynamics impacts social innovations role in transformative change.

Typology 3: Interacting elements in a coevolutionary transformative change process.

What are the elements (or sub-systems) that interact to produce a coevolutionary dynamic? In general we are interested in coevolution between a social innovation, the social context and a transformative change process. But in developing descriptions of TSI pathways we will need to resolve different elements (or sub-systems) in the social context.

Typology 4: Types of (coevolutionary) interaction between transforming elements or 'sub-systems' in a transformative change process.

As a transformative change process gets underway, the existing theory on co-evolutionary dynamics suggests that sub-systems go through a period of relative 'alignment' followed by a period that is generative of instability, resulting in 'dis-alignment'. This state of affairs can then lead to a range of different types of interaction between sub-systems, including:

- **contestation and conflict**
- **cooperation versus competition**
- **capture, retreating and merging**
- **Absorption/assimilation**
- **Symbiosis and parasitism**

The outcomes of these interactions have emergent properties and are an important element in the co-evolutionary dynamics, in acting as stepping stones for further change. Different pathways are not only possible but also likely to emerge. This list of mechanisms is tentative, in developing the framework for TSI we need to discover which are present in which interactions in a TSI process. And then further describe them specifically for TSI processes and address gaps.

Contestation and conflict. Rather than seeing 'contestation' as being unusual we see contestation as more often a constant, indeed – whilst also indicating that these contestations are often just perturbations that are absorbed by dynamically stable socio-technical systems. This dynamic (in)stability of complex adaptive systems (as theorized in transitions studies) helps articulate that we're geared towards change and contestation, and that social systems may have an inherent moment for change based on structural tensions – but we also acknowledge that actual *transformation* is exceptional (occurs rarely). Furthermore contestation (manifested as conflict) may be used by incumbent actors to de-legitimise actors (and their proposals and innovations) that are 'further from power' and this may influence transformation processes.

Capture, retreating and merging. We are not only interested in how social innovations and nascent transformation processes can be negated, side-lined or shut-down but also the diverse ways in which a social innovation and/or transformation process might be subverted, captured or assimilated by the logics of currently dominant structures and 'regime' actors. This requires attention to the role of power and empowerment processes and resolution of the reasons, meanings and normative framings that surround the reality of actors engaging in and supporting certain social innovations and transformation processes (and not others). So eventual we probably need a framing more nuanced capture, retreating and merging to cover these types of interactions, so these terms are just place-holders for the moment.

Typology 5: types of *outcomes* observed in the coevolutionary dynamics of TSI

The interactions between different elements or sub-systems result in ***emergent outcomes*** over extended periods of time and space: i.e. our use of 'outcome' is similar to the use of 'pattern' in some of the transitions literature.[26]

- **Integration or coherence outcomes (like a joint coherence across many initiatives)**
- **Fit-stretch patterns**
- **Mainstreaming**
- **Developing momentum and integrating disparate activities**
- **De-alignment and re-alignment**
- **Lock-in (as an extreme form of path dependence giving rise to lock-out effects)**
- **Substitution effects/patterns**
- **Stagnation versus acceleration**

The journey or trajectory of how a particular social innovation unfolds over time and space in interacting with a transformative change processes can then be referred to as a **Coevolutionary TSI Pathway**. Social innovations are part and parcel of transformation, with the transformations being the outcome of social innovation diffusion, branching, recombination and adaptation.

[26] The distinction between 'pattern' and 'mechanism' can be confusing in a coevolutionary framing. Geels (2002, p92) understands that "while patterns are outcomes, mechanisms produce outcomes. Furthermore, patterns typically stretch over the entire TT-process, while mechanisms take place over shorter time-periods within phases." We can refer to mechanisms as specific types of interaction between elements in the five shades of change, while patterns refer to properties that can be observed in the transforming social context over extended time periods (but NOT necessarily over an entire transformative change process).

Transformations have emergent properties, they are the culmination of many decisions, resulting in institutional forms, concepts, identities , and evolve out of the interaction of various actors in different fields.

Transformations of the social context are not easily achieved, and that is major topic for us in developing the framework for TSI. Incumbent solutions tend to show patterns of being 'lock-in' to certain ways of doing things while 'locking-out' new ways of doing things, even sometimes when there is an apparent need or pressure (from e.g. a game changer) for such new solutions. Of course, lock-in and lock-out patterns might present opportunities as well barriers clever (subversive) social innovation strategists. Various theoretical resources are available and we should develop a table (building on the theoretical reviews) that summarises the different literatures that can help us to conceptualise lock-in and lock-out patterns in TSI dynamics (cf. Pel et al 2014). Theoretical resources we consider include:

- Resources from systems innovation and transition studies, including the MLP and understandings of of niche-regime dynamics.
- Notions of hegemonic and counter-hegemonic causes; draw on governance and institutionalisation and the theories covered in the papers presented at the governance workshop, no least Bonno's position paper.
- Structuration theory; specifically Sewell's framing of how structures transform, which also theorises how and why they don't transform.
- Relational approaches and studies which explore how patterns of stability versus mobility are maintained and change over time in social systems.
- Resilience thinking and a complex systems framing of stability and lock-in
- Theories of power and empowerment; draw on Flor's paper and references therein

Structural disadvantage requires a process of identity transformation first – and how do social innovation initiatives contribute to that and through which means? – e.g.: providing spaces for experimentation; allowing for interactions with like-minded members and processes of debate which might empower and transform; and the situation in which identity supporting change is there (such as in movements starting from ex-militants of something else), and so identity becomes a useful vehicle of binding members together.

Stagnation versus acceleration is an important feature in descriptions of transition processes in transition studies. Actor-network theory speaks of patterns of stability versus mobility. In TRANSIT, we are interested to understand the factors that lead to the acceleration of transformation processes and the role that SIs might play in such acceleration processes.

Next steps in developing descriptions of coevolutionary TSI pathways

This set of typologies can be used in developing descriptions of coevolutionary TSI pathways. The aim is to eventually develop an analytical framework which we can use to develop forward-looking descriptions of unfolding TSI pathways, describing them in terms of a co-evolutionary dynamic. A research task in the next stage of the project will be to assess what sort of TSI

pathways emerge from the analysis of our empirical case studies and other empirical examples of TSI dynamics addressed in our literature review.

We also have the work by Frances Westley et al (2014) on configurations for scaling up social innovation (and related work) and the theoretical work of William Sewell on how social transformations can happen. Together this should provide the basis for developing a characterisation of different TSI pathways and *developing explanations for patterns observed in the emergent dynamics of different pathways*.

It is also proposed that in order to further develop this framework for TSI, we conduct a forward-looking pathway analysis, which is theoretically grounded in the institutional logics of the three sectors (business, government, civil society), possibly with science as a fourth sector, resulting in a fit-stretch pattern or a transformation-trimming pattern, which is inductively informed by identified social innovation dynamics and game changers.

It is also proposed that as a next step in further developing this framework, we can generate a list of social issues, game changers and generative paradigms for developing pathways and for analyzing the social transformation element. Special attention should be given to links and possibilities for links. In so doing, attention should be paid to the role of regulation. In modern society, business is allowed to do business as long as it does not interfere with social goods. When it does interfere there will be pressures on business to adjust its behaviour. Examples of regulating mechanisms for social good protection or production are: state regulations, forms of self-regulation (based on agreements or promises) and voluntary compliance with moral norms, which may be internalized or adhered too for reasons of avoiding moral criticism. Modes of regulation should be part of the pathways.

The TSI pathways that we develop and identify should be based on co-evolutionary interactions involving processes of competition, cooperation, negotiation, contention and legal and political fights resulting in outcomes. **A major part of our task is to map and understand what types of interactions lead to what outcomes, and how, and under what circumstances.** The outcomes have emergent properties and are an important element in the co-evolutionary dynamics, in acting as stepping stones for further change. Different pathways are not only possible but also likely to emerge (by this we mean that emergent 'outcomes' shift the boundaries of the adjacent possible – they make new TSI pathways possible, so our framing acknowledges the generative nature of TSI dynamics in progress).

What this means is that, we need to identify the opportunity and the 'interactions' through which social innovation could lead to transformational change. One key idea here is that whereas it is difficult to change the existing system it is possible to build up an alternative system that can operate first in parallel and then compete with the existing systems and take over their functions. The existing societal system is characterised by systemic interdependence, which limits the scope for change WITHIN the system, as any change for the better in one subsystem causes pain somewhere else. Systemic interdependence limits the degrees of freedom for change within the prevailing system. Importantly, however, the moment a parallel system begins to be built that offers new and alternative ways of fulfilling functions this begins to create scope for further change. For example, policy makers are constrained in introducing policy

aimed at reducing unsustainable consumption today because this would impact adversely on the public welfare system. If there was an alternative welfare system this would no longer be such a constraint. The link between reducing material consumption and reducing welfare in that situation is no longer so strong. So the creation of a strong parallel welfare system through social innovation not only provides new and potentially better modes of creating welfare (direct change at a system level), it also creates room for manoeuvre – degrees of freedom – throughout the pre-existing societal system (indirect change potential at the level of the overall societal system).

Three empirical 'lists' that inform the development of TSI pathways

The following set of four lists then, begin to specify the empirical material that we need as a basis for developing descriptions of TSI pathways for specific social innovation processes. Again, they are 'works in progress':

List 1: Examples of new social issues / social transformations emerging as of 2015.

- **Self-help groups**
- **"samenredzaamheid"**
- **Alternative ways of providing/getting care (the provision of health care at home, neighbourhood care, caring within multi-generational living)**
- **Volunteer activities by professionals who train and coach people (either through volunteering organisations or at the own initiative or the initiative of the company where people work).**
- **Local currencies and money-free systems of exchange**
- **Integration of marginal groups into society**
- **The desire of retired people to remain active members in society**
- **Greater accountability**
- **Responsible behaviour by individuals and companies**
- **Product sharing – the sharing economy**
- **Cooperation as an organising principle for living (a culture of cooperation)**
- **Voluntary downshifting (spending less and working less)**
- **Localism: citizens orienting themselves more towards the local community, universities that want to foster ties with local business,**
- **Living in a more communal way (cohousing, intended communities, transition towns)**
- **Self-employment**
- **Empowerment of professionals (greater work autonomy)**
- **Democratisation of knowledge**
- **Transformative science**

Some of these are problem-driven, some are values-driven, and some are motivated by attractive business propositions. We still have some way to go before we are empirically clear about what we think exactly is a 'social issue' versus what is a social or societal transformation.

List 2: Examples of possible game changers (as of 2015).

The term game-changers provides us with a useful short-hand for observed change processes, but they are understood in terms of our relational framing as being socially constructed through processes of co-production. So social innovations both co-construct game-changers through their activities as well as being influenced by them in terms of constrains or in terms of new opportunities.

- **Youth unemployment**
- **Retreating State**
- **Urbanisation**
- **Austerity programmes**
- **Climate Change**

List 3: Examples of generative paradigms that frame specific narratives of change.

We hypothesise that certain types of social innovation will develop strategies for achieving transformative change. Such strategies will be informed and justified by a particular narrative of change that will be upon a particular 'generative paradigm' (taking the term from the NESTA Open Book on Social innovation). A generative paradigm may cut-across many social innovations and thus form an important way in which coherence is achieved across many different types of social innovation initiative. The Open Book on Social Innovation provides a list of some of the most relevant generative paradigms that we have used as a starting point and added to and adapted to arrive at the following:

- **Open Source; Open innovation; and Open Governance**
- **Low or zero carbon living**
- **Changing the 'scripts' around services**
- **Prevention**
- **Investing early**
- **New models of the support economy**
- **Low or zero carbon living**
- **Holistic support models for services**
- **Personalized support services**
- **Support models that mobilise 'citizen energy'**
- **Systemic drives to energise and empower marginalised groups**
- **Radical democratisation; Participation Society; Participatory democracy**
- **The solidarity economy**
- **The Big Society**
- **The circular economy**
- **The sharing economy**
- **New models for the support economy; holistic support models for services**
- **Distributed production models/paradigms**
- **Revolutionary social technologies**
- **Family-work life balance**
- **Autonomy (local, political)**
- **Prevention**

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7 Annex 2: A first set of theoretical reviews on TSI

7.1 Introduction

This annex to WP3 deliverable D3.2 further documents the research process underway in TRANSIT WP3 by providing links to reports on a first set of theoretical reviews. Each of these theoretical reviews represents a considerable research effort in its own right. Section 2.9 addresses the incorporation of further theoretical resources into the framework for TSI. As of April 2015 this is a work in progress: a number of theoretical reviews have already been completed, and in some cases considerable progress has already been made in incorporating that body of theoretical work into the framework for TSI, in other cases the work is just beginning. Furthermore a second batch of theoretical reviews have been commissioned, and will be completed during 2015. The theoretical reviews completed as of April 2015 are (with a link that provides access to each document on the TRANSIT project's 'Box' web-site):

1) A review of relational theories of sociotechnical change and their possible contribution to developing transformative social innovation theory; by Jason Chilvers and Noel Longhurst.
   Available at: https://app.box.com/s/049jowm8pm020dro0f9qfvhays6nu9vv

2) A Psychological approach to Social Innovation: Relative Deprivation, Social Identity, Minority Influence and System Justification Theories; by Adina Dumitru, Isabel Lema, and Blanco Ricardo García Mira.
   Available at: https://app.box.com/s/udxp6lezlkaljk77123gnv0hxbvdbb82

3) A theoretical review of the relevance of Social Practice Theory (SPT) to the development of a Theory of Transformative Social Innovation. By Tom Hargreaves.
   Available at: https://app.box.com/s/bbd2lv2l898w29loz49f7vw6w04ajpqt

4) A theoretical review of research on narratives and metaphors. By Julia Wittmayer, Alex Haxeltine, and Flor Avelino.
   Available at: https://app.box.com/s/spaptkvz0okwdid8783vqafeb53hxisz

The remaining sections of this annex each have one of two possible origins: in some cases they provide a summary of findings from a completed theoretical review, with the full text also available via the links above (sections 7.2 and 7.3), while in other cases the section provides an update on a theoretical review that is currently being completed (sections 7.4, 7.5, and 7.6).

As a series of theoretical reviews on these different areas of theory are completed during 2015, a next step will be to develop a more systematic analysis of these theoretical resources in terms contributions to understanding aspects of the cross-scale dynamics of TSI, using a small number of themes, such as, contribution to: understanding of agency, understanding of the (social) context; understanding of cross-scale interactions and dynamics; understanding and framing of 'challenges'; and, understanding of the role of knowledge.

7.2 Using social psychology theory in TRANSIT[27]

The Open book of Social Innovation (Murray et al, 2010) states that the persistence of old paradigms and the rising costs of certain services can be the triggers or circumstances that promote social innovation or citizen mobilization, more broadly. The need to solve social and economic problems, together with the inability of government or private institutions to provide adequate solutions, have sometimes induced civil society to achieve positive change. These are important contextual or objective conditions promoting social innovations, but we do not yet have an account of psychological factors promoting mobilization for change.

TRANSIT starts from a reconceptualization of social innovation and its relationship to systemic change and grand societal challenges. It aims at developing a theory of transformative social innovation through a programme of empirical research. From a transitions perspective, empowerment, transformative discourses and game changing developments play an important role. From a psychological perspective, these are important group phenomena and developments, and there are useful complementary perspectives on the individual and group-level mechanisms that can give rise to social innovation.

TRANSIT'S research questions refer to, among other things, the role of actors in social innovation, from the first stage of the process (inspirations, motivations, values, beliefs) to the last - systemic change which includes up-scaling at different societal levels. Within the field of Social Psychology, a wide array of research and theory can be drawn upon, which carefully explains social change processes, conditions under which individuals or groups are motivated to initiate and carry on positions that will lead to change, and contextual conditions that support or hinder transformative change.

Social psychological perspectives start from the analysis of what goes on within the individual that puts a certain action in motion, or how social groups interact with each other and what the outcome of that interaction is. These perspectives are thus well suited to address the following types of questions:

- What motivates social actors to engage in collective action targeted at transforming existing rule-sets or distributions of power? What motivates them to keep going and maintain energy in efforts for transformation?
- What are the mechanisms through which certain social groups engage in transformative efforts, while others do not?
- What are the psychological underpinnings of empowerment? *(to be addressed in the review on empowerment more in detail at a later stage)*
- Once a social group is engaged in collective action, what makes their message convincing? Or in other words, how do they influence other social actors, and manage to transform majority positions? (One could think of this as a process of "recruiting hearts and minds" for the new ideas, beliefs, practices).

[27] Adina Dumitru, 27th April 2015

- Why do we find so much resistance to transformative change, even in the face of mounting evidence of underperformance of existing structures and rule-sets?

Social psychology theory starts from the observation that we are members of social groups from the moment of birth. We come into a social world, with its existing configurations of social organization and distributions of resources such as power and status. In our interactions with the social world, we form our personal identity on the basis of multiple group affiliations, which become part of our concept of self. Our membership in social groups, understood in this sense as a part of our construction of the self, becomes a basis for defining our place in the social world, through processes of social comparison. Social comparison is a constant process through which we adjust to the social world and at the same time strive to maintain a sense of personal and collective worth or esteem. Along with membership, we also internalize a social position, sets of beliefs, feelings and rules for behavior, which become part of an operational system of schemas organizing our experience of the world and our actions in it.

In order to maintain a healthy sense of self-worth, and given that our definition of self involves, or works through, processes of categorization in terms of social groups, we are motivated to act, either directly, through specific behaviors, or indirectly, through psychological strategies, to maintain that sense of worth by ensuring a good position for our social group. **Social identity theory (Tajfel & Turner, 1978, 1979)** gives an account of the ways in which our self-identification with certain social groups motivates us to become involved in collective action especially when external/systemic constraints do not allow us to pursue other strategies for need satisfaction. The dynamics of identity also differentiate new or contemporary social movements from traditional ones, as the former have been said to start out of the need to have collective control over the process of meaning-production and the symbolic processes of identity production and legitimation become a key aspect of these contemporary struggles (Melucci, 1980).

Given that distributions of power in society are always unequal, and processes of legitimation might always favour some identities and discourses over others, some social groups will have more advantages then others, in terms of both material and symbolic resources and power, and the experience of collective disadvantage will give rise to feelings of relative deprivation, another important antecedent for social movement participation and collective action. **Relative deprivation theory** (Runciman, 1966) has explored the relationship between these feelings and collective action. Relative deprivation theory provides a way of making the link between systemic conditions related to unequal distributions of power, or structures of domination, and collective action, providing one possible explanation for mobilization. An observation of different cultural and historical contexts indicates that people can tolerate a high level of inequality and deprivation without engaging in transformative change. Studies within this theory have explored the conditions that lead to the experience of relative deprivation, the kind of contextual factors that might shape or accentuate these feelings and the effects they have on engaging in collective action (reviewed in this document).

Although feelings of relative deprivation and strong identifications with certain social groups might explain why people get engaged in collective action, they do not explain how a discourse of new arrangements in our social organization becomes convincing or starts to be taken on by

other social actors. **Minority Influence Theory (Moscovici, 1976)** explains the mechanisms, processes and contextual conditions in which minority opinions and groups can influence majority thinking and status quo. This theory does not provide an account of how systems change, but it does provide an explanation of how a social innovation initiative might become spread before it achieves any system change, at a micro-level. This theory is best suited to explain how social innovation initiatives might manage to have new members join. Besides explanations, it can provide insghts into tools for social innovation movements.

Finally, social innovation initiatives take time to diffuse and be taken up, and sometimes this evolution is slow even when evidence of the underperformance of a system has been accumulating. Furthermore, transformative change is sometimes rejected by those people it would mostly benefit, or in other words, those that are disempowered. **System Justification Theory (Jost&Banaji, 1994)** explains why people defend or justify the status quo, even when it may be disadvantageous to their own group. System justification acts as a rational mechanism which helps people to cope with and adapt to unwelcome realities, but it is also potentially costly at the societal level, being an obstacle, "a psychological barrier" for progress and social change (Blasi&Jost, 2006; Jost et al., 2012), by suppressing collective action against unfair status quo.

Besides the theories reviewed here, recent developments in WP3 have shown us the need to expand this review further to perspectives of symbolic interactionism (with Julia Wittmayer), and self-determination theory (Deci & Ryan, 2000), to provide an account of individual agency and to support the development of a more robust conceptualization of empowerment in TRANSIT (to be done at the next stage).

7.3 Research on narratives and metaphor[28]

This brief highlights four ways through which research on metaphors and narratives can inform our TSI-theory (development). It is based on a more elaborate mapping of the research on narratives and metaphors.

Narrative research is interesting because the field shows a "*shared tendency to treat narratives as modes of resistance to existing structures of power*" (Squire et al. 2008). As such the field seems to fit perfectly with our focus on *transformative* social innovation, which inherently challenges the status quo including existing power structures. Narrative research is a broad interdisciplinary field. There is an overlap and no clear boundary to be drawn between 'narrative' and other linguistic devices, such as framings, discourses and metaphors. In aiming to contrasting narrative with these, Davies (2002: 11) suggest the following as the smallest common denominator for a definition of narrative: "*In narrative, as contrasted with other discursive forms, past events are selected and configured into a plot, which portrays them in a meaningful sequence and schematic whole with beginning, middle, and end*." (Davies 2002: 11). Metaphors allow us to conceptualise something of one sort (often novel/unfamiliar) as if it were another (usually more familiar). They enable us to establish bridges between the known and the unknown, the familiar and the unfamiliar, the unimaginable and the imaginable. Metaphor is indispensable to human reasoning and to science: where it informs both the creative process and the communications to wider audiences. As other linguistic devices, narratives and metaphors can be understood as creating experience, configuring reality, requesting responses and interacting with other narratives or metaphors. As such they are constituted by their context (with a strong focus on 'culture') and reveal it at the same time.

1) A focus on narratives and metaphors as vehicles for explanation

Narratives and metaphors are used by individuals, groups and organisations for explaining how the world is experienced and how they make sense out of actions, events and developments. They are also used by researchers for the same reason (cf. Geels 2011 on the narrative explanation that is sought after by the MLP).

As such there are two implications for our TSI-theory (development):

- Firstly, it would make sense to inquire into the narratives told and metaphors used by social innovation actors to make sense out of the practices they are engaged in. As such one of the foci of our data gathering and analysis can be of a narrative nature. Narratives as object of analysis can help us to a) link individual experience and life worlds to a collective (e.g. an SI practitioner to an initiative or network); b) link the collective to its broader context (e.g. the initiative or network to broader policy discourses around social innovation, around co-working spaces, …)
- Secondly, in developing a TSI theory that is aiming for explanation, we could be more explicit about the narrative nature of these explanations (rather than being causal chains of different variables) through capturing complex interactions and helping to sequence these.

[28] Julia Wittmayer, Alex Haxeltine, Flor Avelino; Version: April 7th, 2015

2) Methodological insights from narrative research

Narrative research and analysis harbour a number of interesting methodological insights for our empirical work. There are different ways to do narrative analysis, which can be adapted and combined – these could be resources for analysing our empirical work (e.g. thematic narrataive analysis, structural forms of narrative analysis, dialogic/performative analysis or visual analysis)

3) Metaphors and narratives can be vehicles for developing a middle-range theory

In TRANSIT we aim to identify, adapt, or develop metaphors for how social innovation interacts with societal transformation. Insights from narrative and metaphor research can help us in choosing/generating metaphors from which we can derive/generate 'testable' hypotheses for our 'middle-range' theory development. This work then results in metaphors being confirmed or invalidated and new insights for developing alternative metaphors.

4) Metaphors and narratives can be vehicles for reflexivity

Our narratives, discourse, metaphors, our very structures of thought, may in subtle ways be locking us in to unsustainable practices, patterns of behaviour and consumption, and as researchers we are not an exception. The metaphors and narratives we use as researchers can close-down or open-up the potential for transformation. In developing TSI theory, we might want to cultivate an awareness of the ways in which our current thought, language and worldview(s) may be 'locking us out' of the transformations that we urgently need. Our choice of metaphor is coloured by our cultural values and assumptions, and the wider social, cultural and institutional context in which we as individuals, and our research project operate. In turn the processes by which metaphors are taken up in the discourse of TSIs is ultimately political, contested, and subject to power relations. By operating reflexively within this context, we have the opportunity to engage in a conscious co-creation of metaphors about social innovation and societal transformation (see next point). To do this successfully requires a, perhaps subtle, shift in emphasis as researchers and analysts: we need to be aware that we are situated in the transformation processes we are studying.

5) Engaging in co-creating new metaphors and narratives for transformation

This discussion of narrative and metaphor has implications for the appropriate 'goals' of our research and theory development. It implies that it is of limited societal value to simply try to 'communicate' narratives about TSI to practitioners and decision-makers. Instead we need 'co-creative catalysers' for TSI narratives, where we embrace with practical designs the theoretical insights briefly explored in this short paper. The proposal for an online participatory back-casting exercise on the role of social innovation in transformative pathways that was suggested at the International Advisory Board meeting and that is being led by WP3 could be developed along these lines. The aim being to create a more dynamic and creative interaction between the narrative analysing and generative parts of our project and 'in situ' processes of narrative generation about transformational change and social innovation.

7.4 A transformative perspective on structuration theory

During the first year of the project, we also did some work on reviewing some recent approaches to structuration theory, especially the book: The logics of History: Social Theory and Social Transformation.[29] As a next step this work can now be brought into the core framework presented here, which along with perspectives on institutional change processes from institutional theory should provide a basis for further conceptualising how social innovations can interact with transformations of the social context. For now we can just note the insights from Sewell's work on social transformation. The theory of structuration, as developed by Giddens, is criticised for focusing on how stability is maintained rather than on how transformations are possible. The same critique can be made of Bourdieu's theory of habitus. In the Logics of History (2005), Sewell provides a critique of both of these theoretical approaches and suggests a reformulation of structuration theory that is better suited to studying the transformation of structures. Sewell asks how structural change is possible at all and provides an answer that is based on recognising that (Sewell 2005; p140-142) (Note: *Sewell speaks of "schemas" rather than "rules" but with a similar meaning*):

There is a multiplicity of structures in the social context. "Societies are based on practices that derive from many distinct structures, which exist at different levels, operate in different modalities and are themselves based on widely varying types and quantities of resources." (p141). Sewell notes that "While it is common for a certain range of these structures to be homologous, like those described by Bourdieu in *Outline of a Theory of Practice*, it is never true that all of them are homologous. Structures vary significantly between different institutional spheres … There is, moreover, important variation even within a given sphere…" His overall idea here is that while emphasizing the 'sameness' of structure serves the purpose of explaining stability, if we are interested in transformation (as the transformation of structures) then we need to pay attention to variations in structure: "The multiplicity of structures means that the knowledgeable social actors whose practices constitute a society are far more versatile than Bourdieu's account of a universally homologous habitus would imply: social actors are capable of applying a wide range of different and even incompatible schemas and have access to heterogeneous arrays of resources"

He continues by noting four additional ways in which structural change is possible;

> **The transposability of schemas.** Noting how "Moreover the schemas to which actors have access can applied across a wide range of circumstances." (p140). So actors may exhibit agency by applying 'rules and rule-sets' from one circumstances (institutional sphere…) in another one. Structuration conceives of actors applying rule-sets to reproduce resources. As rules are applied in new contexts, the consequences in terms of the reproduction of resources is never entirely predictable: "A joke told to a new audience, an investment made in a new market … a cavalry attack made on a new terrain, a crop planted in a newly cleared field", *or a TSI applied in a new context*, "the effect of these actions on the resources of the actors is never quite certain." This in turn has implications for rules/schemas: "Moreover, if the enactment of schemas creates un-predictable quantities and qualities of resources, and if the reproduction of schemas depends on their continuing validation by resources, this

[29] Sewell, W. 2005. The logics of History: social theory and social transformation. Chicago University Press

implies that schemas will in fact be differentially validated when they are put into action and therefore will be potentially subject to modification. A brilliantly successful cavalry attack on a new terrain may change the battle plans of subsequent campaigns or even theories of military tactics…"

Processes of resource accumulation are inherently unpredictable. The application of a social innovation to a new context has follow-on implications in terms of the make-up of the social innovation, the structures in the social context and also the opportunities for transformation that might open up through this dynamic?

Resources have multiple meanings. If should be noted that for Sewell 'resources' also embody cultural schemas [rules], he says: "any array of resources is capable of being interpreted in varying ways and, therefore, of empowering different actors and teaching different schemes …." "The new prestige, wealth, and territory gained from a brilliantly successful cavalry charge may be attributed to the superior discipline and élan of the cavalry officers and thereby enhance the power of an aristocratic officer corps, or it may be attributed to a commanding general and thereby result in the increasing subordination of officers to a charismatic leader. Any array of resources is capable of being interpreted in varying ways and, therefore, of empowering different actors and teaching different schemas. Agency, here then relates to the "actor's capacity to reinterpret and mobilise an array of resources in terms of cultural schemas [rules] other than those that initially constituted the array".

Structures intersect and overlap. Quote a length from Sewell here because it is so relevant to our ontology of transformation: "One reason that arrays of resources can be interpreted in more than one way is that structures of structural complexes intersect and overlap. The structures of capitalist society include both a mode of production based on private property and profit and a mode of labour organisation based on workplace solidarity. The factory figures as a crucial resource in both of these structures, and its meaning and consequences for both workers and managers is therefore open and contested….. Not only can a given array of resources be claimed by different actors embedded in different structural complexes (or differentially claimed by the same actor embedded in different structural complexes), but schemas can be borrowed or appropriated from one structural complex and applied to another." The important idea here is that, whereas in explaining 'stability' the intersection of structures can be taken for granted to a certain extent, in explaining transformation the (patterning in the) intersection of structures leads to opportunities for transformation.

So we can see how this framing, far from being 'structuralist' actually begins to unpack the different ways in actors in a social innovation might exploit opportunities for interacting with transformative change processes. So a next step here could be to compare the strategies for systems change changed observed in empirical work by Moore (above) and others (including in our own cases) with a 'deductive' framing of strategies based on a further development of the skeletal framing presented here.

7.5 Using Grassroots Innovations research in TRANSIT[30]

What are Grassroots Innovations (GIs)?

Grassroots Innovations are: *innovative networks of activists and organisations that lead bottom-up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved. In contrast to the greening of mainstream business, grassroots initiatives tend to operate in civil society arenas and involve committed activists who experiment with social innovations as well as using greener technologies and techniques* (Seyfang and Smith, 2007: 585).

Examples include local organic food schemes, community currencies, community energy projects, low-impact eco-housing, skill-share networks, cohousing groups etc. GIs differ from conventional market-based innovation: they are driven by ideological commitment rather than profit seeking; they create spaces for expression of more sustainable values and culture; they tend to involve communal ownership structures and operate in the social economy, often relying on voluntary labour, grants or mutual exchange. These alternative systems of provision are intended to meet social needs in a way that differs significantly from mainstream systems, whilst also facilitating the expression of green values and cultural preferences (Seyfang 2009).

GIs are the term we give to a type of community-based activism for sustainability, and is not a new phenomenon. We can trace a clear line of heritage back to the 1960s' emergence of 'small is beautiful' deep green environmentalism, through the 1970s' alternative technology movements which sought to democratise sustainable lifestyles via green technologies and ways of living, and the 1990s 'Local Agenda 21' focus on community-based action for sustainability (Smith et al, 2014). These forerunners addressed technological and social aspects of innovation and change within a context of deep-green sustainable development, and the term GIs is merely a modern descriptor for this long-running, evolving repertoire of action.

[Within a development context, GIs are also the term used in the Indian Honeybee Network to describe low-tech, inclusive innovation with strong social and economic as well as environmental goals – this bridges into development studies literature].

How are GIs understood?

Whereas these kinds of initiatives have previously been studied as forms of community development or social inclusion initiative, Seyfang and Smith (2007) argue that this type of community action can be a promising - but neglected - site of transformational innovation for sustainability. Furthermore, the innovations are found in social arrangements, expectations and institutions (ie, ways of organising society) as much as in technological advances. Researchers have therefore turned to co-evolutionary theories of socio-technical innovation to understand GIs' growth, potential and limitations.

Within the sustainability transitions literature, niche theories (and SNM in particular) have primarily addressed market-based innovations in technological systems, and there has been relatively little work to date examining how applicable these theories are to radical innovations emerging from civil society. However, radical innovations are not the preserve of the market, they can equally arise in public sector and civil society contexts. GIs are conceived as radical innovative niches emerging from civil society.

[30] (Gill Seyfang, 27 April 2015)

Several studies have examined GIs to test the applicability of SNM and niche theories in this context, and have found that while the theories do have some purchase on explaining how and why these niches develop and spread, there are many confounding factors – attributable to the nature and characteristics of GIs themselves – which demand further attention (see for example Seyfang and Longhurst 2015; Seyfang et al, 2014).

In particular, the distinctive resource base, actor profile, value-orientation, and political stance taken, result in a more complex and non-linear niche development process and diffusion patterns than SNM would predict. Consequently, GI research is beginning to turn to theories of *politics and social movements* to better understand how GI niches interact with wider systems (Smith and Ely, 2015). Similarly, *social practice theories* are shedding light on how social innovations in everyday life take root and spread (Hargreaves et al, 2013).

However, these are not exhaustive; GIs are a phenomenon that could be approached from a number of theoretical angles, and other scholars studying, for example, community supported agriculture, ecovillages and community-liftsharing bring distinctive perspectives to bear. The development studies literature may also shed light on the phenomenon.

GIs and TRANSIT

Given that GIs address systemic change, and are concerned largely (but not exclusively) with social innovation, the relevance for TRANSIT of this body of research is clear. Many of the case studies investigated in TRANSIT are GIs, and while emerging work from niche theories of innovation are a helpful starting point, they are limited in explaining the emergence and development of civil society-based innovations.

Therefore TRANSIT requires a better understanding how GIs develop and grow, to inform its theory of transformative social innovation. A forthcoming review of GI research will map out the scope of current work in the field, the range of theoretical perspectives applied and their insights, and the learning so far.

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7.6 Power and Multi-Actor Perspective[31]

Dualities of Power

As of yet, there is too little explicit talk about power and politics in TRANSIT. More attention needs to be given to power and politics both in the empirical analysis and in the conceptual theory development. In our theory review of power (TRANSIT concept 10.10.2014) we provided an elaborate review of points of contestation in the scientific debate on power (see table below). In TRANSIT, we have a co-evolutionary, recursive understandings of structure vs. agency (alá Giddens). In that light, we do not choose 'sides' in contestations over where power lies, rather we acknowledge how both sides of a power continuum (e.g. centred and diffused power) co-evolve. We aim to develop a middle-range theory of TSI. As such, we are not aiming for a grand theory of TSI, let alone a grand theory of power. We do want to make sure, however, that our TSI-theory/framework is informed by political/ social theory on power so that it can ask and answer relevant questions on TSI-phenomena. The table below provides examples of such questions.

Contestations/ Dualities of Power	**Examples of questions about (T)SI phenomena** [32]
Power 'over' <> power 'to' Dahl, Parsons, Foucault, Morriss	• How are structures of domination and oppression (re)produced / challenged by/in TSI? • How do actors exercise power (capacity, authority, force) (possibly over others) to achieve TSI-goals?
Centred <> diffused Dahl, Bachrach & Baratz, Lukes, Mann, Foucault	• Are there 'ruling (T)SI' elites or '(T)SI centres of power', and if so, who/where are they? • How and by whom is the agenda of (T)SI decided, and which issues are kept of the agenda? • How are preferences and interests underlying (T)SI shaped? What are processes of normalisation underlying (T)SI?
Consensual <> conflictual	• What are the conflictual processes underlying (T)SI? What is productive about such conflict? • What are the consensual processes underlying (T)SI? What is oppressive about such consensus?
Constraining <> enabling	• How and by what are actors constrained in/for (T)SI? • How and by what are actors enabled in/for (T)SI?
Knowledge as <> prior to power	• How is (our) knowledge of and discourse on (T)SI co-evolving with (power dynamics in) (T)SI processes?
Empowerment <> disempowerment [33]	• (How) can the capacity of actors for/in TSI be increased? • What are disempowering (un)intended consequences of/in TSI?

[31] (Flor Avelino, 08.04.2015)

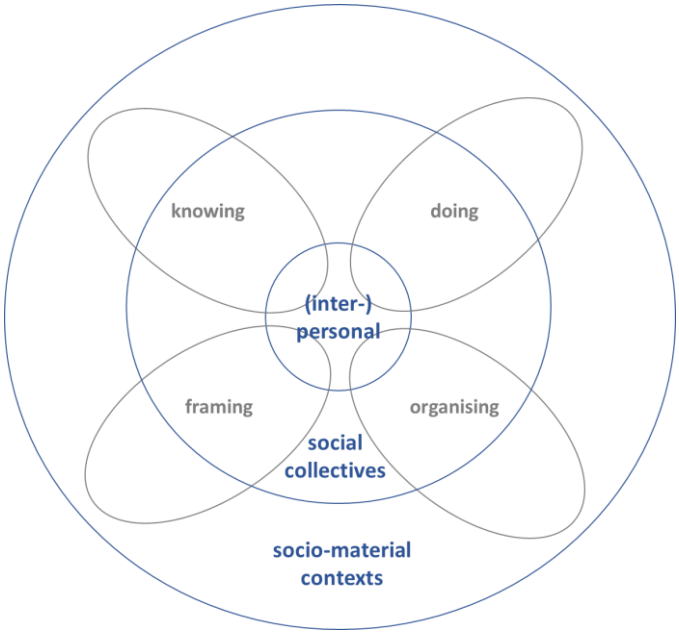
[32] References to "(T)SI" can be specified in various terms: e.g. a theoretical/analytics question about what kind of patterns we can observe in TSI processes overall, or a more specific, empirical question about a particular (T)SI-network or SI-initiative with transformative ambitions, or whatever.

[33] There is obviously much more to say about empowerment > to be worked out and elaborated in cooperation with Adina, Bonno and others in the coming months/ years

Social (Power) Relations / Levels of Social Aggregation

Despite of all the disagreements and contestations in the debates over power, there is one thing that most power theorists agree on: **power is about social relations**. In TRANSIT, we are strongly inspired by the relational approach. Therein, however, I am still missing more explicit attention for social and political relations between people (besides 'relations' in the sense of everything being related to one another). In the TIW, we discussed how the 'relational petals diagram' could be elaborated by adding different levels of social aggregation: (inter-)personal, social collectives and social-(material) contexts (see figure below).

We could argue/hypothesise that for social innovation to be 'transformative', something needs to change/happen at each of these social levels.



The questions about power relations (as specified on the previous page) are relevant for each of these levels of social aggregation.

Or in other words: we need to pay attention at how (T)SI-processes co-evolve with changing (power) relations between people, between collectives and between different social contexts.

In my PhD – and in the paper on MaP – I proposed a typology of power relations that provide concepts that could be helpful to ask questions about different power relations at different levels of social aggregation (see table below), without necessarily even using the word 'power'. Questions such as: who depends on who, who competes/ cooperates with who in/for (T)SI? Etc.

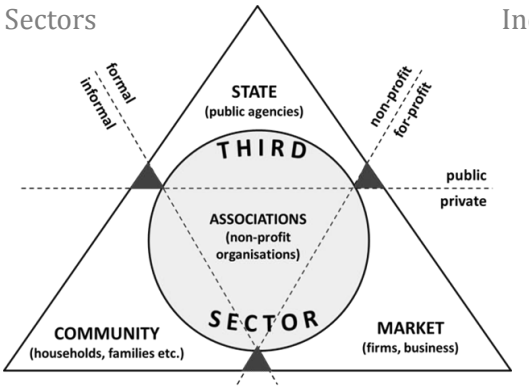
Type of relation	Manifestation of power relations		
Power 'over'	A depends on B but B also depends on A => A and B have power over each other	A depends on B but B does not depend on A => B has power over A	A and B do not depend on each other => A and B have no power over each other
	mutual dependence	**one-sided dependence**	**independence**
'More / less' power to	A exercises more power than B, but A and B have similar, collective goals	A exercises more power than B, while A and B have mutually exclusive goals =>	A exercises more power than B, A and B have independent co-existent goals
	cooperation	**competition**	**co-existence**
'Different' power to	A's and B's different power exercises enable and support one another	A's and B's different power exercises restrict, resist or disrupt one another	A's and B's different power exercises do not (significantly) affect one another
	synergy	**antagonism**	**neutrality**

Multi-actor Perspective on (T)SI

In our paper on the Multi-Actor Perspective (MaP), we build on the Welfare Scheme to distinguish between actors at three different levels of aggregation: 1) sectors (state, market, community, Third Sector), 2) organisational actors, and 3) individual actor roles (figures below). In relation to the diagram on the previous page (which distinguishes between inter-personal, social collectives and socio-material contexts), the actor-levels in MaP are situated at both the inter-personal level as well as the level of social collectives. We believe that the MaP provides useful concepts and questions for understanding TSI and for developing a TSI-theory/framework. Some ideas:

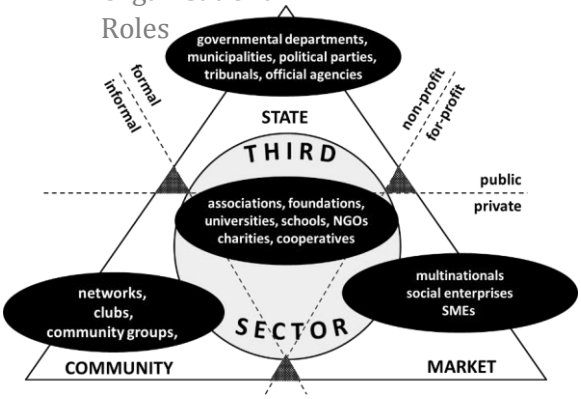
- Social innovation does not come forth from one specific sector or institutional logic, it can emerge in any sector and be triggered by any kind of organisational or individual actor.
- The shifting and contestation of boundaries between the sectors (formal vs. informal, for-profit vs. non-profit) is in itself a manifestation of SI and often an explicit part of SI discourses (e.g. the 'social entreprise' as a not-for-profit category in between for- and non-profit).
- While SI can emerge in/by anywhere and anyone, we can argue that for SI to be transformative, it needs to affect change in all sectors/institutional logics: state, market, community and Third Sector.
- We are interesting in understanding how (T)SI- processes co-evolve with changing (power) relations between sectors (e.g. between state and market) and between different organisational and individual roles (e.g. between companies and trade unions, employers and employees, poor and rich, etc.).

Sectors

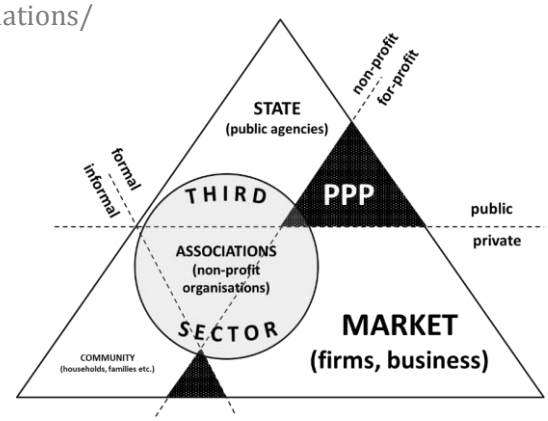


Individual Roles

Organisational Roles



(Shifting) Relations/ Boundaries



8 Annex 3: Report on a Theoretical Integration Workshop

Note: This annex is included in an accompanying file (due to constraints of overall file size).

It can be accessed directly via the link below to the TRANSIT project's Box site:

https://app.box.com/s/t1uxp0s5cgou300q61uiyzjpgpg189rk

Annex 3 to WP3 deliverable D3.2 consists of a full workshop report on the first TRANSIT Theoretical Integration Workshop held in Norwich 24-25 March 2015.

The first TRANSIT Theoretical Integration Workshop (TIW) brought together the findings of the empirical case study research with the development of a middle-range theory of TSI. The purpose was to provide the basis for developing a first prototype of the middle-range theory of TSI. The workshop included all of the lead case study researchers.

The basic idea of the workshop was to create a space where all case study researchers could firstly reflect on their own and others case studies, and develop some 'inductive' propositions about the observed dynamics. And then secondly, to compare these 'inductive' propositions with a set of 'deductive' propositions developed in WP3. A description of 'deductive' assumptions and propositions was arranged around a set of five categories. This set of five categories of different aspects of TSI dynamics together with an associated set of 'deductive' propositions were used as a structuring device in the workshop design. The descriptions of the propositions and assumptions is reproduced in the workshop report, as is the full workshop design and guide for facilitators.

The processing of the outputs from this workshop is reported in the main body of deliverable D3.2 and so the scope of the 'workshop report' document is limited to reporting on the workshop design and input materials and collating the initial notes and 'write-ups' of the various working groups and plenary discussions held during the workshop.