

From research design to meta analysis guidelines

Deliverable 5.1

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1 Introduction

The TRANSIT project aims to develop a theory of Transformative Social Innovation that is thoroughly empirically informed. This is done through in-depth analysis of 20 cases on social innovation networks and the associated SI initiatives (Cf. Jørgensen et al. 2015; Wittmayer et al. 2015), but also involves the 'meta-analysis' of SI processes as key task of Work package 5.

This first deliverable of Work package 5 describes the main steps that needed to be taken to move from a roughly defined research design to guidelines for meta analysis. In outlining not only the set-up for meta-analysis but also the methodological choices that led towards it, the deliverable serves two purposes. Firstly, it provides all WP5-researchers – both case researchers and the WP5 team with a clear framework underlying the further activities of database construction, the collection of data on 'critical turning points' in TSI to fill it with, and the eventual exploitation of the database for researchers' and practitioners' knowledge interests. The deliverable thus provides a basis for the work done in the further WP5 process, which will officially end with a synthesis report (D5.4) in March 2017. Apart from this ground-laying function for the further WP5 process, this deliverable also has a retrospective function, however. Secondly, it provides an underpinning of the metaanalysis, by relating this set-up to our overall research set-up and the many methodological choices that have been made in the first phase of TRANSIT research. Spelling out the TRANSIT research philosophy, the data collection and the theoretical understanding as they have developed, it becomes understandable why WP5 does not amount to a classical survey, why it focuses the meta-analysis on TSI *processes*, and why it seeks to develop a practically relevant database of 'critical turning points'.

The contents of and the reasons for such 'critical turning points' database will be presented as follows. First, an overall planning of WP5 sketched against the overall TRANSIT timeline, also indicating its linkages with other work package processes (Chapter 2). Next, it is reconstructed what kind of theory TRANSIT is developing and what its key methodological commitments are (Chapter 3). Considering further the pool of data that TRANSIT will have developed after batch II case studies (Chapter 4) and the key proto-theoretical understandings developed (Chapter 5), it is explained how these earlier choices inform the meta-analysis set-up. The key phenomena for meta-analysis, the 'critical turning points', are first explained as analytical tool for TSI (Chapter 6). Next, the meta-analysis set-up is elaborated in more concrete terms of observations to be made, population targeted, and the research process involved (Chapter 7). Finally, the last chapter provides an outlook on the closely related and immediately following WP5 task of database construction (Chapter 8).

2 Project and WP5 timeline: Formalization and guidance

2.1 TRANSIT timeline and WP5 process

The meta-analysis conducted in WP5 forms part of an overall research design aiming towards middle-range theory (Cf. Ch3). TSI theory is thus developed through iteration between different empirical and theoretical research activities. In other words, the planning of the WP5 process needs to be positioned within the overall TRANSIT project timeline. This timeline, as updated after the Theoretical Integration Workshop in Norwich, is presented below.

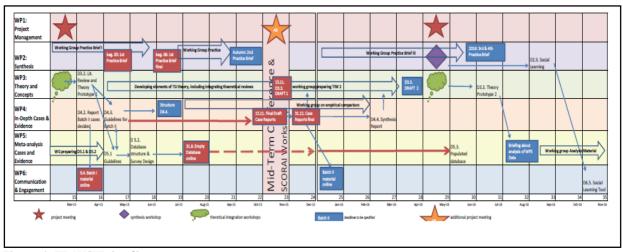


Figure 1: TRANSIT timeline

Even displayed without legible details, the timeline indicates that there are several milestones for WP5, and that it its planning has interdependencies with other work packages. The following timeline events, milestones and interdependencies are of particular importance.

This first WP5 deliverable is preceded by a first phase of empirical TRANSIT research, comprising first batch case research (D4.1-D4.2).

It is also preceded by the development of TRANSIT proto-theory (D3.1-D3.2).

It is developed in parallel with the selection of second batch case studies, and with the case research guidelines for those (D4.3).

Together with WP4 it forms part of a broader activity stream of empirical research, possibly involving overlapping populations of researched SI actors.

It is followed almost immediately, within a month, by the development of a database architecture (D5.2), which is to be operational by beginning of September.

The population of the database (D5.3) and the results of meta-analysis (D5.4) are core activities and results to be developed from September 2015 onwards.

The results of meta-analysis (D5.4) depend on the set-up outlined in this D5.1 outline

2.2 Formalization and guidance

Having sketched the main implications of the TRANSIT project timeline, there remains of course the fact that TSI theory is developed through a multitude of interactions between the work packages. WP5 approaches those from the understanding that this work package is a rather path-dependent one: Meta-analysis on the basis of larger-N data gathering typically requires homogenized and fine-tuned data-sets, and the associated processes of data gathering, data storage and data query do not allow for much improvisation. Establishing precisely what it is that one wants to meta-analyze, is a crucial and committal decision. Likewise, it needs to be considered that the pursued database construction very much depends on initial decisions and choices of key requirements and outputs. As the set-up developed in D5.1 determines D5.4 to a quite a significant extent, WP5 marks the basic choices of this set-up as choices to be developed with particular care.

Out of the awareness that initial choices are so important, WP5 approaches the TRANSIT timeline through a strategy of *formalization* and *guidance*.

Formalization. The initial choices for meta-analysis and database development have been roughly described in the DOW, as envisioned beforehand. Ultimately these choices have to in line with TSI development as it is de facto developed however, and be informed by developments in the other work packages as much as possible. As will be described in further chapters, this deliverable thus seeks to take into account what research philosophy has been developing over the first 15 months of TRANSIT, through explicit research choices but also through ongoing discussions on what it is to develop TSI 'theory' (see further Ch.3). Likewise, this deliverable takes into account how the TRANSIT pool of case study data has been nearly completely defined (Ch.4), and of course how the confrontation of theoretical reasoning and first-batch empirical has led to an advanced understanding of what TSI is and what its key dimensions are (Ch.5). WP5 has thus been following these processes for their inputs to WP5 initial choices – but this deliverable D5.1 also *formalizes* them. After all, some choices have only been made implicitly, some issues remained somewhat undecided points of discussion, and more generally they have been dispersed over various TRANSIT research activities and deliberations.

Guidance. D5.1 formalizes and consolidates various earlier TRANSIT choices, and it anticipates the envisioned results from second batch of case studies, but it also needs to resolve certain unsettled issues for the meta analysis set-up. Examples of those are ambitions towards descriptive or explanatory TSI theory, kinds of research techniques through which to fill the envisioned database, or the kinds of outcomes to work towards (e.g. typologies, causal factors, pathways). Resolving unsettled issues, this WP5 also contains choices regarding the direction meta-analysis will take, and guidance for the further process of WP5 and related research activities. D5.1 thereby marks the shift from following, somewhat reactive activities towards a pro-active phase of WP5. The meta-analysis set-up, the elaboration of the TSI database, its population through empirical research and eventual meta-analysis will be informing, providing inputs for, and posing side constraints to, research activities in other work packages.

2.3 WP5 activities

Having clarified the role of WP5 within the overall TRANSIT research process and the approach of 'formalization & guidance' to the WP5 work process, it is easier to understand its planning. Key activities are the following:

- Establish empirical focus for meta-analysis
- Elaborate format (observation matrix) for empirical data/database entries
- Establish population for meta-analysis
- Elaborate population and observation matrix into protocol for empirical research
- Develop database structure based on observation matrix, and fine-tune observation matrix into questionnaire
- Subcontract database developer for implementation of database structure
- ❖ Involve practitioners' reference group with development and testing of database structure
- ❖ Deliberation with TRANSIT partners about selection of meta-analysis population
- Coordinate scope/selection of respondents with WP4
- Conduct empirical research
- Guidance of empirical research by WP5 team
- Populate database with empirical research findings
- Develop protocols for meta-analysis
- Conduct meta-analysis
- Coordinate meta-analysis findings with theory development (WP3), and cross-cutting themes (WP2)
- Deploy database for communication and training purposes (WP6)

Most of these tasks will be executed by the WP5 team, often in collaboration with other work package teams. The crucial task of empirical research is a common task for all TRANSIT researchers, however. Apart from their possible role in WP5 team, all partners have personmonths dedicated to that task:

Person-Months per Participant							
Participant number 10	Participant short name 11	Person-months per participant					
1	DRIFT	9.00					
2	UM	11.00					
3	UEA	5.00					
4	UOS	9.00					
5	ULB	17.00					
6	AAU	12.00					
7	UNQ	9.00					
8	COPPETEC	9.00					
9	воки	5.00					
10	UDC	11.00					
11	ESSRG Kft.	9.00					
12	IHS	10.00					

Figure 2: WP5 Person-months (DOW: 28/29)

3 TSI research philosophy

3.1 Intro: grounding WP5 method choices

As indicated in the previous chapter, the basic choices for meta-analysis set-up will have to be well-considered, as there is little room for improvisation during the further process of database construction, data gathering and population of the database. The main choices for the WP5 set-up therefore better be grounded in the basic TRANSIT understandings of what kind of phenomenon TSI is, what its key dimensions are, what the TRANSIT researchers think they can explain, and what kind of knowledge they want to produce. In other words, the meta-analysis better be informed by the TRANSIT research philosophy that has emerged during the first phase of research.

There are in fact several reasons for providing WP5, and TRANSIT more generally, with an explicit research philosophy. First of all, it helps to create clarity about various fundamental understandings that underlie TRANSIT theorization and empirical research. These often remain implicit, or are expressed through general expressions that accommodate different viewpoints. For example, the shared understanding has developed that the originally envisioned 'survey' better take the form of 'quali-quantitative' analysis, as such would do better justice to the complexities of TSI. Specifying this 'quali-quantitative' understanding through a more explicit research philosophy, the meta-analysis will be more adequate to theory development: it helps looking for TSI at the right places and in the appropriate ways. Second, as a research philosophy helps to make method choices that are in line with our basic beliefs about TSI, it needs to be remembered that TRANSIT comprises a multitude of those choices, spread over different work packages. So apart from adequate method choices, a more explicit research philosophy also helps in achieving consistent method choices – for example, a meta-analysis that somehow builds on and helps to deepen the TRANSIT insights as developed in the first phase of TRANSIT. Third, the research philosophy is a way to provide underpinning of TRANSIT outputs. Other than the first two points of adequacy and consistency, this underpinning has more an external function. Such outward justification of TRANSIT knowledge claims seems important as TRANSIT has raised expectations of both theoretical excellence as well as high practical value, and has already developed a clearly critical stance regarding the 'empowerment 'it seeks to provide. Also that normative dimension will be easier to handle through an explicit research philosophy -beyond the research design in the narrow, operational/coordinative sense.

In the following, some apparent key elements of TSI research philosophy are described: TSI as middle range theory (3.2), as relational perspective (3.3), as empowering theory (3.4), as contextualizing theory (3.5), as process theory (3.6) and as 'layered sense-making' through a mixed method approach (3.7). These key elements' implications for meta-analysis will be sketched only briefly, as they will become also apparent in further chapters.

3.2 Middle range theory

As mentioned earlier, TSI is developed as a middle range theory. A middle range theory is a tried and tested approach method for building a new empirically-grounded social theory (Haxeltine et al. 2015: 4). This involves an interplay of empirical data from case studies and theory from earlier research, the two research tracks in TRANSIT, which may be termed an iterative process of inductive and deductive research, but which is commonly referred to as abduction (or retroduction). It should be kept in mind that abduction is not a simple mix of deduction and induction, and it cannot be reduced to these (Alvesson & Sköldberg 2009:.4). During the research process the empirical area of application is successively developed, and the theory is adjusted and refined. This is illustrated by the considerations in choosing batch 2, the adaptations through lessons learned between D4.1 and D4.3, and the successive shapes of TSI-proto-theory in work package 3. The different parts of TRANSIT all influence and change each other. TSI is thus not developed through systems-theoretical reasoning alone, as the generic term does suggest to a certain extent. More specifically, this characterization of TSI development implies that TSI is conceived as a concrete empirical phenomenon that is to be grasped by interplay between theory development and empirical investigation(see Jørgensen et al. 2015 and Haxeltine et al. 2015: 4 for more extensive accounts). TRANSIT organizes this interplay through confrontations between work packages, of which the first Theoretical Integration Workshop is the most prominent

A first implication for WP5 meta-analysis is in any case that this meta analysis is to serve a theory development process that is ongoing. A second implication is that the meta analysis can actually benefit from the first iteration cycle, leading to the TSI framework laid down in Haxeltine et al. (2015) and summarized in Chapter 5.

3.3 Relational perspective

Another distinct element of TRANSIT research philosophy is the relational approach to social reality. As has gradually become more clearly and is explicitly stated in Haxeltine et al. (2015), TRANSIT operates from the understanding that (T)SI emerges from coproduction between multiple actors in social-material contexts. Assuming that changing relations matter more than stable actors and factors, in processes of TSI at least, TRANSIT quite fundamentally takes an ontological position. An important background is the transition-theoretical debate on the reality status and stability of the niche-regime-landscape levels, and more generally the usefulness of systems theories to describe, understand or explain societal transformations (Geels 2010, Jørgensen 2012, Garud & Gehman 2012, Hargreaves et al. 2013, Pel 2014). Starting from a 'foundational ontology' (Geels 2010) of transformations that is relational, TRANSIT boldly goes into a territory wherein it foregoes transition-theoretical certainties.

The relational perspective amounts to ontological assumptions. It has therefore implications throughout the research. A first implication is that TRANSIT investigates embedded units of analysis, i.e. individuals in SI initiatives that in turn are embedded in larger SI networks, clusters and fields (Cf. Ch 5-6-7). Second, TRANSIT works with vocabularies, heuristics and visualizations in which transformations and changes are acknowledged to be 'co-produced', rather than caused by certain factors or determined by certain system mechanisms. This was expressed first through the concept of the 'shades' of innovation and change, the current stage of proto-theory conceives of TSI even more explicitly as co-productive process in which the interactions and relations between agents are crucial.

The implications for meta-analysis is similar to those for second batch case studies – the changing relations between actors should be observed, and investigations should yield dynamic descriptions of those rather than static, reductionist overviews of factors, causes and mechanisms.

3.4 Empowering theory

TRANSIT is ontologically committed to its relational perspective (as described under 3.3). This aversion to assumptions of stable states of affairs, causes, actors and 'drivers' of TSI does make it difficult to make firm assertions and recommendations for practice, however. Frank Geels has remarked that this 'reificophobia' (Geels 2010, Geels & Schot 2010) is one important argument against relational perspectives on transformation processes. This argument is important to TRANSIT as it has, as is usual in the field of transitions studies, made a clear commitment to *empowering* TSI theory (Cf. DOW; Haxeltine et al. 2013). In fact, the combination of the relational, co-production perspective and the commitment to empowerment have led to ongoing debate on and research into the questions of whom to empower and what 'tools' or 'training' methods that would precisely entail (Cf. Zuiderwijk et al. 2015; Avelino et al. 2015 under review, Haxeltine et al. 2015). Part of these considerations on empowerment are also the explorations into the performative nature of TSI knowledge and communications (Voß 2015; Pel & Bauler 2015), i.e. into the undeniable circumstance that also TSI knowledge is shaped ('co-produced') by the conditions of its time. The latter self-understanding of TRANSIT amounts to considering TSI as a 'critical theory' – being empowering primarily by identifying, unmasking and reconsidering the implicit assumptions and dominant practices of its time. This way of empowerment is present in TSI through the attention to dominant ways of knowing, doing, organizing and framing (see Ch.6), which can be compared to the central place of dominant 'regimes' in transitions theory (Pel et al. in press).

As sketched, the commitment to empowering theory can be lived up to in different ways and through different tools, trainings or awareness-raising knowledge production. A relatively clear implication is in any case that reciprocal relations with researched networks/initiatives are pursued, in order to be more responsive to the forms of empowerment sought for. For meta-analysis and database construction there is the similar implication that these should be producing knowledge not only *on* but also *for* SI actors. Moreover, they should somehow account for the critical-theoretical lesson that categories in databases are not innocent, as they structure reality in ways that may confirm or challenge dominant understandings.

3.5 Contextualizing theory.

TRANSIT starts from the understanding that the development trajectories of SI initiatives, networks and fields are crucially shaped by the particular contexts in which they emerged. Instead of seeking to develop a universal of TSI, TRANSIT seeks to inform TSI theory by considering the different experiences as observed in different countries and in different kinds of SI activity. This reflects the 'geographical turn' as it is recently emerging in transitions theory: Transformations arguably tend to develop differently in North-western Europe than they do in the Central and Eastern European countries, or than in Brazil or Argentina. In order to incorporate different transformation contexts, TRANSIT has thus selected cases in different 'welfare contexts', and in different societal sectors (Cf. DOW, and Ch.4).

The implications of this contextualizing theory development are not very evident. It is logical to conduct meta-analysis as a comparative analysis, as a way to exploit that TRANSIT case selection covers such a diversity of contexts. On the other hand, TSI proto-theory does not contain strong assumptions on the importance of either 'welfare schemes' or 'SI fields' as categories, nor have these categories been led to extensive empirical accounts of those welfare schemes and fields. Still, in line with the relational perspective, TRANSIT is aimed to be very sensitive to SI contexts – as the actors and structures that surround SI initiatives, co-produce them, and are affected by them. On that account, it remains important for meta-analysis to address the different SI-contexts, - but mainly in terms of co-production in networks, and less so in terms of national/continental 'welfare schemes'.

3.6 Process theory

From the beginning on, TRANSIT has conceived of TSI as an evolving phenomenon. It has been referred to through notions of innovation 'journeys' (van de Ven et al.1999), of TSI narratives, and there have been conjectures of TSI 'pathways' similar to the transitions pathways of Geels & Schot (2007). Moreover, the relational perspective (3.3) of TRANSIT has been elaborated further, framing TSI as a radically dispersed phenomenon, the originating sources and units of analysis of which are not clear due to recursive relationships between shades of innovation and change and processes of co-production. TRANSIT theorizing and empirical investigations having created an awareness of transient, becoming realities, they have diminished the belief that a TSI theory could be developed that provide solid causalities. In other words, the awareness has developed that TSI is not pursued as a variance theory of causes and factors, but as a process theory of sequences of events, in which patterns, phases and possibly even mechanisms can be discerned (Langley 1999; Sminia 2009, Geels & Schot 2010).

Acknowledging the originating sources of TSI to be elusive and ascribing agency to embedded actors/units of analysis (Jørgensen et al. 2015), TRANSIT seems to forego the solid theoretical explanations that offer practical foothold and empowerment (Cf. 3.4). On the other hand, this can be considered just a matter of taking the dynamics of the SI phenomenon seriously. This dynamic, elusive nature, and the fundamental 'instability' of the very social innovation concept seems to be both difficult to work with and important to account for in SI projects(Pollitt 2015)².

The important implication of approaching TSI through process theory is that *appropriate process methodologies* are chosen to match it (Sminia 2009). That means, amongst others, that TRANSIT consistently describes TSI through dynamic vocabularies – of becoming rather than being, more of relations and activities (Framing, Organizing, Doing, Knowing) than of stable things. For empirical investigation it implies that the timelines of TSI initiatives and networks become key aspects of case analyses, that analytical attention goes out to the origins of and changes in SI processes, and of course that clear distinctions are made between SI visions, impacts and potentials (Wittmayer et al. 2015). Likewise, meta-analysis should be based on process data, i.e. on data about things that develop, processes, series of timeline events – and not so much static inventories. Where classical surveys would then mine the larger-N data pool for factors and correlations, the meta-analysis of process data rather develops such generic understandings in terms of patterned event sequences, phases, or typologies .

¹ This notion of 'pathways' was deliberately brought forward as a framing for our Mid-term conference.

² Advisory board speech at LIPSE Mid-term conference. More generally, it can be considered how reference projects deal with this.

3.7 Layered sense-making through mixed methods

Understanding TSI as process theory, there is still a broad range of process theories to be considered (see Haxeltine et al. 2015). Prominent references for TRANSIT have been the transition-theoretical pathways constructed out of niche-regime-landscape configurations (Geels & Schot 2007; 2010), the innovation 'journeys' (van de Ven et al. 1999), and the evolutionary, relational and durational meta-perspectives through which innovation journeys can be understood (Garud & Gehmann 2012). Especially the latter article has helped to create the awareness that there are different methods and analytical foci that each highlight particular aspects of TSI processes, whilst somewhat neglecting others. Indeed, reflections on the first batch of case studies and ongoing theoretical work have brought home how it is difficult to stay empirically attentive to different dimensions of TSI processes, and to uphold different levels of analysis (from personal/interpersonal up until grand transformations). For the second batch of case studies this has led to a greater emphasis on historical analysis (Wittmayer et al. 2015), but also more generally to more strongly focused guidelines on what to observe, and what not.

As usefully explained through an overview article on process theory by Langley (1999), there are different strategies of making sense of process data. Examples of such sensemaking strategies are the creation of descriptive process narratives, construction of time lines and analysis of event sequences, or attempts towards generalized typologies, phases, or 'configurations' (Byrne 1005; 2009; Rihoux & Ragin 2009; Schneider & Wagemann 2012) in evolution through formalizing and possibly even quantifying methods (as in the Minnesota research program that produced the 'innovation journeys' framework of van de Ven et al. (1999)). Importantly, these various ways of making sense of process data are not mutually exclusive, and as they all of have their particular strong and weak points, they can be combined. This points towards a mixed method approach (Yin 2003; Woodside 2010; Small 2011), which is particularly often advocated for process theory (Langley 1999).

In fact, it is quite usual in process theory development to work with a sequence of methods. First a basis of in-depth insights is laid start with descriptive, narrative process theory. Indeed, and in contrast to other research projects in which a broad survey forms the starting point, TRANSIT has case research as a backbone in its research-design. The first batch case studies served to explore, to 'bump into unknown facts' (Merton, 1957, p105), and to identify problems, issues, and characteristics unknown at the outset and thus not part of the original research design. The batch I of case studies mapped the so crucial relations and coproduction processes in social innovation initiatives that are hard to investigate through other methods. Still, it is effective to draw upon both in-depth case analysis and metaanalysis to reach a higher level of data homogeneity, or as put by Flyvbjerg (2006): The advantage of large samples is breadth, while their problem is one of depth. For the case study, the situation is the reverse. Both approaches are necessary for a sound development of social science (Flyvbjerg 2006, p.26). In order to increase breadth in TSI development, a usual second step in process theory is therefore often one of meta-analysis – moving from descriptive narratives of cases to the construction of general typologies, event sequences, process phases, or other patterns in processes (Pentland 1999; Eisenhardt & Graebner 2007).

The main implication of this layered sense-making of TSI processes is that the TRANSIT case studies and the meta-analysis should be understood as complementary, potentially synergetic activities that each can help to elicit particular aspects of TSI processes. The one being stronger in depth and the other in breadth, both have their particular potentials for bringing TSI proto-theory further. In any case, understood as being part of layered sensemaking, the meta-analysis should be arranged such that it somehow adds breadth to the depth of the preceding first-batch of case studies.

4 Describing our data set

4.1 Introduction

The mixed method approach indicates the different ways of 'making sense of process data' (Langley 1999) that TRANSIT deploys to develop TSI. As the meta-analysis is meant to generate more generic insights and overview, rather than in-depth narratives of particular TSI processes, it is important to assess what pool of process data our TSI theory development can rely on ³. In other words, this chapter takes stock of the 20 social innovation networks which form the baseline population for the larger-N research. For an overview of the individual networks, see Appendix 2.

These networks are studied consecutively in two batches in the in-depth empirical work and constitute the cornerstones of the overall TRANSIT data set⁴. Transversal analysis of case studies and larger-N, survey-type investigations are complements to this in-depth work. The results of the in-depth empirical work ⁵ provides starting points for the researchers in gathering data for the meta-analysis and the resulting analysis itself.

The description of this dataset proceeds as follows: first, we describe what our 20 case studies consist of in terms of research objects, and what they cover **(4.2)**. After that, we describe the sub-selection of TSI cases arrived at in terms of themes **(4.3)**, and the diversity in contexts that they constitute **(4.4)**. As the meta-analysis is directed at generic observation of a larger number of cases, all these dimensions will be discussed considering the 20 cases as a single set. So even when there are slight differences in approach between them (Cf. Wittmayer et al. 2015),the focus is on the continuities between the first and second batch case studies.

4.2 Research objects

The objects of analysis for TRANSIT empirical work are transnational social innovation networks. As outlined in the DOW, we consider a 'transnational network, as a "a set of interlinked social innovation initiatives that operate across national borders" (TRANSIT DOW, 2013: 11). The networks or networking activities facilitate social innovations in local sites and initiatives across Europe and Latin America. They are more or less formalized with as minimum requirement having an internet presence with an international contact point.

We approach these networks as embedded case studies: we study them at the level of their transnational networking activities as well as at the level of two 'local' manifestations. These local manifestations are social innovation initiatives which are associated with the network and are 'placed' in two countries belonging to different welfare state schemes.

The set of 20 networks covers more formalized networking activities with a certain history to be studied, with the more formalized activities reaching back to the 1990s/2000s, while to a certain extent the focus is on "contemporary innovation-in-the-making" (Jørgensen et al. 2014: 13).

³ An important reflective consideration here is what empirical basis TSI theory *can't* rely on – the dataset is only a particular subset of all the data that is potentially available on this massive phenomenon of T and SI.

⁴ The adaptations and refinements in case research set-up, as well as the selection of batch-2 networks, are elicited in Wittmayer et al. (2015)

⁵ The second batch case studies are yet to start at the time of writing, yet the case selection is rounded off and the outlines of the case research guidelines are available. This deliverable can thus anticipate on batch-II results, i.e. D 4.4.

The focus on transnational networks or networking activities was chosen as it allows:

- ❖ To study and analyse the emergence and expansion of social innovation and social innovation initiatives and their relation to, and their co-evolution and interaction with, their social context.
- ❖ To identify mechanisms for emergence and expansion of social innovations across different societal domains and different countries and the role of transnational networks or networking activities in this process .
- To analyse the role of the intermediary organisations and individual actors that are part of these networks, sampling various sectors and many different localities.
- ❖ As outlined, the data-set of 20 networks has been chosen in two rounds. This involved some minor adaptations of the overall characteristics of the networks chosen in the second round. Generally the focus was maintained however, selecting embedded cases on more or less formalized transnational social networks, including two of their local manifestations, and being spread across different institutional logics (see section 4.3) and welfare state models (see section 4.4). The overall dataset engages with different predefined thematic clusters or transformative discourses and exhibits different strategies for engagement (see section 4.3).

4.3 Transformative discourses and institutional logics

The overall dataset can be characterized in terms of its engagement with different predefined thematic clusters or transformative discourses; its spread across different institutional logics and its ways of engaging with the transformative process.

Transformative discourses and thematic clusters

With the second selection round of networks, we moved away from the term 'transformative discourses' (TRANSIT DOW 2013), first towards 'narratives of change' (Haxeltine et al. 2014) and eventually we defined 'thematic clusters'. The latter are still defined in discursive terms, as covering 'narratives of change' and/or generative paradigms. As such there is continuity in the overall selection of cases. It also allows us to build continuity between the two rounds of selecting the networks pertaining to the overall dataset – without relying on traditional distinctions of policy sectors and fields that are inadequate to TSI theory, or on vaguely defined societal domains.

The transformative discourses were defined as 1) 'new social economy', 2) 'low-impact living' and 3) 'open source' and their identification was based on a clustering of the 'generative paradigms' identified in the Open Book of Social Innovations (Murray et al. 2010). Building upon these and further specifying them the thematic clusters are defined as follows:

- 1) New economy (incl. sharing economy, social economy, social entrepreneurship, impact economy, crowd sourcing, gift economy, circular economy, collaborative economy);
- 2) Sustainability and resilience (incl. community resilience, renewable energies, autarchy, commons);
- 3) Transformative science and education (incl. peer to peer, open source, open innovation, coproduction, science-society relations);
- 4) Spaces for/of innovation, both physical and imagined (e.g. ecosystems of innovation, incubators, reclaiming (public) space, geopolitical resistance, self-organisation, urban labs);

- 5) Maker-Movement (incl. craftsmanship, design, low tech grassroots development, digital fabrication); and
- 6) Inclusive society (incl. discourses around Big Society, participation society, retreat of the welfare state and issues of inclusion and exclusion).

The overall batch of 20 networks engages with all of the six thematic clusters, while each network of the dataset engages at least with one pre-defined thematic cluster. The challenge is to analyze how and to what extent the interaction between social context (including thematic clusters and therefore transformative discourses) and social innovations leads to transformative change.

Spread across institutional logics

We use the Welfare Mix scheme provided by Evers & Laville (2004) and Pestoff (1992) to further characterise our overall dataset. This scheme conceptualises the Third Sector as an intermediary sector in between the institutional logics of state, market, and community (households, families, informal groups etc.). Having a diversity in which logics are covered in the overall dataset, enables us to explore how individual actors, intermediary organisations and transnational network connect and translate between different sectors. Figure 3 below illustrates how the networks selected under the first batch can be positioned at different intersections between the Third Sector and the other sectors.

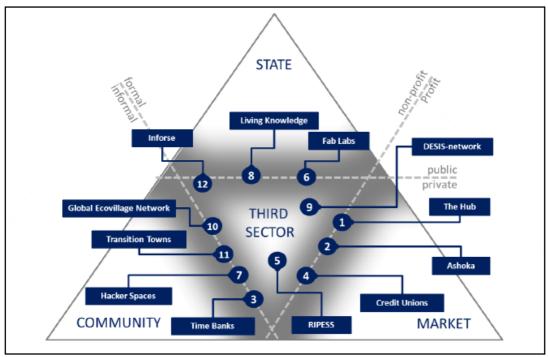


Figure 3: Overview of first batch of case studies across welfare mix

Strategies for engaging with the transformative process

The individual networks in the data set use different strategies for engaging with the transformative process. We characterized five strategies which are covered by the overall dataset, namely: 1) different degrees of formalisation; 2) institutionalisation; 3) controversy; 4) visibility; and/or 5) mainstreaming.

This engagement with the transformative process through different strategies allows us to analyse how these strategies play into and interact with other factors in the social context and whether or not and when these are successful. An important aspect is the different degrees of formalization. This might help explain different relations of SI networks and manifestations to dominant ways of doing, organising, framing and knowing.

5.4 Geographical spread and Social Models

Another characteristic of the 20 transnational networks dataset is the spread of individual networks over six social models or 'welfare contexts' in Europe & Latin America.

Considering the (originally expected) importance of the social, cultural, institutional and political contexts in the development of social innovations, our 20 cases denote a diversity of contexts. They are spread across different 'social models' of Europe (cf. Sapir 2006, Moreno 2010), namely:

- 1) The Anglo-Saxon model (United Kingdom)
- 2) The Continental model (Belgium, Austria, Germany, France, etc)
- 3) The Nordic model (The Netherlands, Denmark, etc);
- 4) The Mediterranean model (Spain, Portugal, Italy, etc)
- 5) The Central and Eastern European model (Hungary, Romania, Poland, etc)
- 6) The 'Latin-American' model as an added category, as exemplified by cases in Argentina and Brazil

To date in the in-depth empirical work in WP4, there has not been a systematic attempt to elicit the different contexts and to analyse the developments of the SI-initiative or SI-network against them. Some case study reports do show this engagement in e.g. describing the history of the SI-initiative in terms of its interaction with other factors in the social context partly those factors pertaining to the specific social model. Others show it through describing the external governance of a SI-initiative, i.e. how the latter interacts with external actors.

Having described the dataset as developed through the TRANSIT case studies, it becomes more clearly what insights are already available for meta-analysis, and what common characteristics and diversity dimensions could be played into for the development of generic TSI understandings. Before describing the meta-analysis approach in Chapters 6 and 7, it is sketched first what empirical foci and analytical categories are brought forward by TSI proto-theory.

5 TSI proto-theory: Concepts, propositions and conjectures

5.1 From TSI proto-theory to meta-analysis

TSI theory is developed through an iterative process, and through a combination of methods to make sense of process data (Ch3.). So the first phase of empirical research, the batch I case studies, have been guided by a set of sensitizing concepts and conceptual heuristics (Jørgensen et al. 2014; 2015). These case findings have informed theory formation (Haxeltine et al. 2014; 2015) which in turn will be further explored through batch-II case studies. But next to this second batch of TSI process narratives, involving some new foci and refinements in case analysis (Cf. Wittmayer et al.2015, D4.3), we are also seeking to develop systematized insights across the twenty SI networks selected for case study.

As already sketched under the 'relational', 'process' and 'contextualizing' characteristics of TSI (sections 3.3, 3.5 and 3.6,) the current stage of proto-theory provides some specific indications for topics to explore through meta-analysis. Whilst referring to Haxeltine et al. (2015) and Wittmayer et al. (2015) for more extensive expositions, this chapter provides a brief summary of the proto-theory. In the following we highlight those elements of TSI proto-theory that seem particularly salient for the set-up of TSI meta-analysis – and its focus on so-called 'critical turning points'. The chapter presents first the TSI conceptual map, the relational understanding it conveys and the definitions of the key TSI concepts (5.2). Second, it highlights the four dimensions of TSI (D,F,O,K) and the three clusters of propositions that have been brought forward to test and investigate (5.3). Third, it lifts out some conjectures, propositions and hypotheses that have been brought forward as possible patterns in TSI processes The latter are particularly interesting, as possible generic insights for meta-analysis to work towards. (5.4).

5.2 TSI: Conceptual map and key concepts

An important achievement of the TSI proto-theory is that it has articulated clearer definitions of core concepts and categories, whilst also bringing forward only a carefully developed framework rather than a full-fledged explanatory TSI theory – which would run ahead of further iterative theory development, and easily introduce premature assumptions about the key processes and driving forces. Regarding the first, the phenomenon of TSI is defined as follows (see Haxeltine et al. 2015:50-54 for a more comprehensive list of TRANSIT definitions):

Social innovation is understood as "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."

Transformative change is understood as "change that challenges, alters and/or replaces dominant institutions and structures in a specific social context".

Transformative Social Innovation is understood as "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".

TSI, clearly defined in relational terms, is captured in the conceptual map below (figure 5.1).

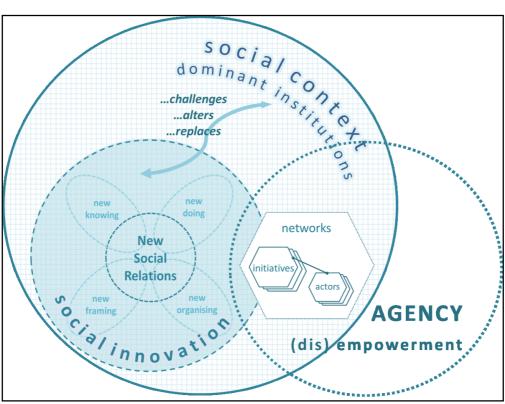


Figure 5.1 Schematic Summary of Conceptual Map of TSI Processes

The conceptual map displays how the changing social relations challenge, alter or replace dominant institutions/structures - the dominance that is the defining of transformative social innovation. The map displays this through a bi-directional arrow, however. These challenges, alterations and social relations are also seen to take their shape within the context of those dominant institutions and structures. The relational perspective typically places this interaction in the foreground, rather than the dominant or challenging entities. Likewise, the conceptual diagram expresses how SI initiatives are entities that are embedded in networks, and have individual actors embedded within them – also here there is a bi-directional arrow that expresses how the interrelations between these entities is more important than these entities by themselves. An implication of this relational portrayal of affairs is that the map should be read in a dynamic fashion. It is not so much a map that displays what is there, but rather a map that displays how embedded actors are constantly shaping each other in different interactions, how challenging, alteration and replacement are ongoing processes, and how empowerment and disempowerment alternate over time. In other words, the conceptual map is not a causal diagram of TSI drivers, but a way to make sense of TSI processes.

5.3 TSI dimensions

Even when the conceptual map adequately expresses how many processes and agents are entangled with each other, it also provides some ordering in what otherwise might become a blur within distinctions. The map provides dimensions of TSI processes. A first distinction of dimension pertains to the kinds of relations that can be seen to change in TSI process, namely in Doing, Framing, Organizing , Knowing. A second distinction of dimensions pertains to the three different clusters of questions and propositions that have been developed in TSI research thus far.

The DFOK-heuristic helps to distinguish between the many socially innovative ideas, objects and actions that are around:

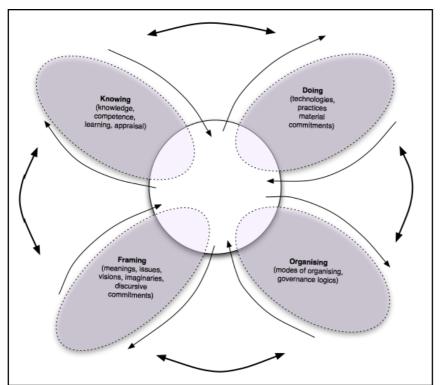


Figure 5.3 Four aggregate dimensions for resolving the make-up of a social innovation (adapted from Chilvers and Longhurst (2015), Cf. Haxeltine at al. 2015:12))

The second distinction of dimensions is more difficult to map in such symmetrical figure, as it distinguishes different clusters of questions that the conceptual map helps find answers to. The dimensions can be distinguished as 1.emergence, 2. interaction, and 3.agency.

- 1) How does SI emerge? How do SI-initiatives, SI-networks and the 'SIs themselves' relate and develop through space and time?
- 2) How do social innovations interact with/ contribute to transformative change in a social context?
- 3) Agency in (T)SI. Where lies the agency in (T)SI processes? How are actors dis/empowered in/by the SI-initiatives/ SI-networks in relation to (T)SI?

5.4 TSI proto-theory: Conjectures, Hypotheses and Themes

The TSI framework specifies what to look for, wherein TSI can be found and what to explore further. But beyond these heuristics for further exploration it also constitutes a prototheory, in the sense that it contains a set of more or less propositions on TSI and its dimensions. Particularly salient for WP5 are the various conjectures, hypotheses and analytical themes that bring forward initial generic insights on TSI. Two promising directions stand out as footholds for meta-analysis, namely 1.the hypothesis of coevolutionary pathways; 2. The theorization of phases and phase shifts.

The first, the co-evolutionary pathways, are ways to build more solid, generic theories on how TSI processes develop. The TSI proto-type is grounded in a relational perspective, but in the background it is fed by the transitions-theoretical insights on transition pathways such as distinguished in Geels & Schot (2007). Similar to those insights on transformation processes, theories about co-evolutionary patterns could then be used "...to develop forward-looking descriptions of unfolding TSI pathways" (Haxeltine et al. 2015: 33). Considering the different ways in which existing resources may be combined into alternatives, several 'speculative and preliminary' pathways have been proposed. They can be read as different evolutionary routes, paths or 'trajectories' the co-production of social innovation may take, and can be seen to classify the 12 TSI case studies conducted thus far. Characterizing different kinds of TSI processes, they are visualized and named in figure 5.4 below.

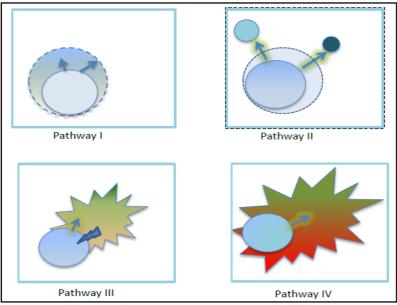


Figure 5.2 Pathways in TSI (Haxeltine et al. 2015:36)

- 1) Creating shadow systems.
- 2) Scaling out and emergence of hybrid forms.
- 3) Contestation.
- 4) Imposed change.

These pathways are the typical generic and forward-looking insights on TSI processes that could be developed through meta-analysis of larger numbers of TSI processes. After all, they are the theoretical constructs that may appear evident in certain kinds, but can only be posited when compared against other cases. Meta-analysis could clarify whether these pathways are tied to particularly revealing and impressive cases (such as the much celebrated Transition Towns movement, or reflect process patterns that are shared by broader sets of cases.

The second stream of hypotheses, conjectures and themes consists of the various propositions about TSI phases, and phase shifts. These propositions, developed through the Theoretical Integration Workshop, typically cover a broad range of TSI aspects, spread over emergence, interaction and agency (see section 5.2). For meta-analysis it is particularly interesting that many propositions explicitly or implicitly bring forward ideas about phases and phase shifts. An important example has been brought forward by Frances Westley and colleagues, who also have been following various (transformative) social innovation attempts over time. Their insights have been expressed through our propositions 2.9 and 3.7:

"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." (Haxeltine e al. 2015:49, proposition 2.9)

"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. "(proposition 3.7)

This assertion about the need to consciously adapt theories of change suggest that SI initiatives go through different phases. Similar ideas about phases are expressed through the following propositions below:

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

"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)." (proposition 1.12)

"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." (proposition 3.11)

Some of these propositions provide first ideas and hypotheses about phases in TSI processes, whilst others, like 1.12 and 3.11, rather appear to state factors. Still, the latter also seem to contain a certain temporal element, an idea of relations that may be needed, but also need to be developed. This temporal aspect is also evident in the four coevolutionary pathways, which can easily be understood as different phases an SI initiative may go through, or different states it may find itself in. Taken together, these pathways and shifting phases seem salient to explore through meta-analysis.

6 Meta-analysis: The co-production of Critical Turning Points

6.1 Introduction: Meta-analysis of TSI processes

The meta-analysis will target relevant TSI dimensions and proto-theoretical understandings as identified in Ch5. *But how?* The most obvious function of meta-analysis is that of solidification of theoretical constructs, of systematic testing of hypotheses, and of identification of causal mechanisms. The meta-analysis of TSI networks and the various associated local initiatives and co-producing external parties would in such solidifying approach be based on a classical survey, in which a high quantity of observations would yield a basis for statistical operations.

However, such strategy of solidification (Cf. D4.2) and hypothesis testing can be considered inadequate to TSI development as it is pursued within TRANSIT. As explained in Ch3, it has become clear during our research proceedings thus far that TSI is a phenomenon that is to be understood through process theory rather than variance theory. Furthermore, also the relational understanding of SI resists the decomposition of TSI processes into factors and causes. Apart from these theoretical considerations, there are others, such as the fact that the proto-theoretical propositions are not developed for falsification or verification, and that the originally envisioned quantity of observations is still likely to remain below the threshold necessary for generating significant statistical outcomes. And even if managing to reach that threshold, the systematized and compressed insights would easily become so 'dry', abstract and general that they wouldn't bring much practical insights on TSI processes and their dynamics. All of these considerations suggest that meta-analysis better be undertaken as what we came to refer to as 'quali-quantitative' meta-analysis, and at least not as classical survey approach. A further pragmatic consideration is that classical surveys are vulnerable to low response rates (Fowler, 2008). TRANSIT has envisioned to build its empirical research on a limited set of carefully selected SI networks, with whom it crucially seeks to develop reciprocal, mutually satisfactory researcher-researched relations. The practical relevance of the larger-N data gathering/survey (results) to them, and to the broader SI-field, is crucial. So rather than running into and adding to the looming 'survey fatigue' under SI networks, and eventually winding up with incomplete overviews and disappointed SI partners, the meta-analysis should be exciting to be part of, and arouse willingness-to-participate.

Taking into account these considerations, which have been discussed under research philosophy (Ch3), method triangulation (Ch3), population (Ch4) and of course our prototheory (Ch5), we now specify the meta-analysis approach. The TRANSIT meta-analysis set up is meant to fit in with our overall approach to TSI development by approaching TSI as a dynamic phenomenon. As will be explained further in this chapter, the meta-analysis will be built on the **qualitative comparison of process data**. The process data that is gathered, coded and analysed into generalized process understandings will flow into a repository of TSI process experiences. Bringing together and organizing 'critical turning points' in the (coproduction) processes of diverse SI initiatives, a TRANSIT Critical Points Repository can be developed that researchers and practitioners can co-develop and exploit during and beyond TRANSIT's lifetime.

Before going into the details of meta-analysis in Chapter 7, this chapter explains what we mean by the overarching concept of critical turning points. How does that relate to our prototheory or framework for TSI? What empirical phenomena does it cover, and what are the kinds of outcomes and insights that it will generate? In the following we address these questions by discussing two key aspects of our CTP: First, the significance of critical turning points as

particular moments in TSI processes, marking the move (or transition) from one phase in SI initiatives' histories into another **(6.2)**. Second, we explain the significance of turning points as important moments in co-production. The histories of SI initiatives, and also the critical turning points therein, are typically shaped through their interactions with others. They may undergo internal crises, but even then the co-production plays a part (or so we suspects). So the critical turning points also provide foothold for systematic insights into network formation into broader (overlapping, intersecting) SI fields **(6.3)**.

6.2 Critical Turning Points: Towards TSI phases

Where case studies of TSI initiatives and networks typically highlight their particularities through accounts (or narratives) of processes, they help develop descriptive process theory. TRANSIT meta-analysis reaches for more generic insights, for explanatory theory with some prospective value. A typical move from descriptive to explanatory process theory is then to seek distinctions of phases (Langley 1999, Pentland 1999), i.e. recurring event sequences or process patterns in the timelines of cases. One can think of the kick-off, acceleration and stabilization phases in transitions, the hype cycles (also including the reverse sequence of phases!), or the resilience loops as ways to gain meta-insight on complex, co-produced processes. Also the Open book on Social Innovation distinguishes 'six stages of social innovation', namely Prompts, Proposals, Prototypes, Sustaining, Scaling and Systemic Change (p12 ff). Below it is explained how 'critical turning points', understood as moments or events in processes at which initiatives undergo or decide for changes-of-course, are ways to work towards such identification of phases.

Although we do not have established such phase models or hypotheses amenable to falsification or verification, we do have several proto-theoretical understandings that provide foothold for such explanatory process theory. Particularly suitable foci for the metaanalysis are then the TSI pathways as distinguished in D3.2, namely shadow systems, hybridised systems, contesting systems, imposed configurations. In fact these seem to denote phases, states or relational constellations in the evolution of SI initiatives. Likewise, there are various propositions in D3.2 that pertain to the development phases for SI initiatives. Particularly suitable for our meta-analysis to explore, however, is Frances Westley's hypothesis of the existence of 'Achilles' heels, as referred to frequently in discussed in our proto-theory development (Haxeltine et al. 2015): SI initiatives need to (periodically?) reinvent their practice in order to maintain their potential for truly transformative impact. Such moments of reinvention - not necessarily consciously experienced on the spot nor self-determined, often reified by a posteriori heroic narrative constructions – are particularly important moments in SI initiatives' histories. These hypothesised turning points reveal the vulnerabilities of TSI initiatives, the mismatches of their theories of change with the reality of co-production, and possibly the decision to go for a more encompassing transformative strategy - or the retreat onto local, less wide-reaching action instead. Importantly, there are likely to be several of such 'critical turns' or 'Achilles heel' moments in a SI initiatives case history. Such is at least suggested by the 'whirlwind' model of Akrich et al. (2002a) and relational views on innovation processes more broadly (Latour 2005), and also by various dialectical process models (Hargrave & van de Ven 2006; Penna & Geels 2012; Shove 2012; Pel & Bauler 2015). The meta-analysis is precisely aimed at producing a sequence of such specific points on timelines. The collection of critical turning points is then the empirical foothold for subsequent identification of phases (as they mark the transition from one phase to the other, for classification of types of turning points, and for theorization of the co-production constellations and contexts that induce them⁶. In

⁶ As critical turning points are often induced by external, co-producing forces, a more precise term is maybe 'inception points' – which includes those forces.

the end it may even be possible to distinguish a limited set of TSI pathways, out of the interlinkages between critical turning points.

What the 'critical turning points' are precisely and how they can be identified, is of course an important methodological issue. Understood as 'moments or events in processes at which initiatives undergo or decide for changes-of-course', the identification of them is up to the SI initiatives and not fully defined by the TRANSIT researchers. What can be specified further, though, is that the critical turning points are recorded by asking for their occurrence in the TSI initiatives' practices of Doing, Framing, Organizing, and Knowing. Furthermore, they can be structured through the themes of emergence, interaction and agency (Cf. Ch5), which amounts to 4x3=12 categories of critical turning points. Distinguishing these dimensions is an important way to systematically observe (see further Ch.7), whilst remaining open to critical turning points *as experienced*.

6.3 Critical Turning Points: Co-production contexts and networking

Turning points are thus ways to systematize our understanding of SI initiatives' timelines, and the shifts in direction that occur in these innovation journeys. But they are not only a way of distinguishing phases in time. Crucially, they are not only moments with relevance for SI initiatives alone, but also for those actors with whom these initiatives are coproducing – or with whom they decide to co-produce no longer, or fundamentally differently.

As we conceive of TSI as being co-produced, the critical turning points should be studied through multiple perspectives⁷, triangulating observations beyond those of the focal actors, the SI-initiatives. Indeed, co-production occurs by definition by the interrelation of a series of different actors, in a (social-material) playing field around the SI initiatives. The interview population to be interviewed about the critical turning points (see next chapter for details) should include other actors who (can be reasonably expected to) participate (directly) in the development of the SI-initiative, and who have a lever onto their practice through the dimensions of doing-knowing-framing-organising. So, the triangulated observations of *co-produced* critical turning points will be developed by researchers gathering the points of view on those from directly concerned actors:

- ❖ Actors within the SI-initiative
- Policy actors
- Related SI local initiatives (i.e. being positioned on the same TSI-field, and locally present, geographically near to the explored TSI local initiative)
- Societal organisations of a different nature but relatively directly related to the TSI local initiative in terms of SI ambitions (e.g. NGOs, (social) enterprises, Third sector organisations).

⁷ Or as developed in Haxeltine et al. (2015:32-33), triangulated analysis of CTP brings out how event X can be integrated into different actors' Narratives of Change. Actors' identification of CTP also presupposes certain 'theories of change'. In other words, these two TRANSIT concepts are useful analytical tools to deploy in, and elaborate through, CTP analysis.

This triangulation of actor perspectives, and broadening of empirical focus beyond the SI initiatives as focal actors, is in line with the frequently argued need to be paying attention to 'context'. While 'context' was initially (in DOW) approached through the TSI initiatives' geographical location in specific countries and welfare schemes (and hence under the influence of hypothetically different policy cultures), this relatively vague and traditional contextualisation seems insufficiently tailored to our understanding of TSI processes and the relevant units of analysis (see earlier 3.5 on contextualizing theory). The methods of quantification and statistical extrapolation associated with comparative studies of welfare schemes seem no to fit with our proto-theoretical insights and research philosophy-in which institutional logics are theorized, but not welfare schemes of (groups of) countries. Moreover, there is the pragmatic consideration that TRANSIT does not have the means to systematically and comprehensively cover the different styles/cultures/administrative constellations.

Through this triangulating approach to critical turning points, the larger-N observation of those also provides foothold for systematic insights into network formation. Asking coproducing actors about their shares in SI initiatives' critical turning points brings into view how they operate in broader SI clusters or fields, which may in turn overlap and intersect with others. The meta-analysis will lean on the hypothesis that the development processes of SI initiatives can be attributed to specific 'TSI-fields'. These have been identified and distinguished ex ante in our case selection process (Ch.5), and have also come forward through case analyses through overlapping 'narratives of change' (or 'thematic clusters'; see section 4.3). Gathering data on a multitude of particular *TSI-fields* within which SI-initiatives on network formation. Because the critical turning points thus generates insights on network formation. Because the critical turning points are observed as events that are co-produced, they show SI contexts, and developments in which SI initiatives cluster into overarching TSI-fields or movements.

7 Meta-analysis: Observation matrix, population and research process

7.1 Intro: Making meta-analysis operational

As outlined in the previous chapter, the meta-analysis of TSI processes will focus on critical turning points. This will help to generate a more systematic understanding of the shifts and phases within SI initiatives' development processes, and of SI initiatives' co-production and clustering with others in SI fields. Both typically look beyond the particularities of singular TSI processes.

This chapter is the operational follow-up, which elaborates this meta-analytical set-up into operational guidelines. It clarifies first how different kinds of critical turning points will be distinguished, and what observations will be gathered. This will be presented in the form of an observation matrix, also indicating how empirical observation will be recorded and inserted into a database (7.2). Second, it is clarified which types of actors will be targeted as respondents, how many of them will be questioned for the meta-analysis, and what the population for meta-analysis will be (7.3). Third and finally, it is clarified how this process of empirical investigation will be organized, from empirical observations towards meta-analytical conclusions (7.4).

7.2 Critical Turning Points: Observation Matrix

Having explained why 'critical turning points' are suitable TSI phenomena to target for meta-analysis, it is crucial to specify how they can be systematically observed. There is this general understanding of 'moments or events in processes at which initiatives undergo or decide for changes-of-course', the common reference to the 'Achilles heel' moments in TSI in our proto-theory, and everyday understandings of somehow decisive turns. Specification of the concept is needed for an operational meta-analysis set-up, and is all the more pressing as meta-analysis will be done by different researchers. Observations should be sufficiently harmonized. Meanwhile, our critical turning points, understood as 'moments or events in processes at which initiatives undergo or decide for changes-of-course', cannot be defined beforehand by the TRANSIT researchers. They are moments/events in a SI-initiatives' history that are experienced as crucial, and this requires a line of questioning – whether by phone or face-to- face -, that does not impose researchers' ideas of events that matter⁸.

Fortunately, our relational framework of TSI proto-theory allows for a systematic observation of critical turning points that does provide structure, whilst simultaneously remaining open to respondents' perceptions. We distinguish between two general dimensions for observation. First of all, the four dimensions of SI co-production allow to distinguish critical turning points as they occurred in the TSI initiatives' practices of Doing, Framing, Organizing, and Knowing. Secondly, the proto-theory does not posit certain factors that would incite, trigger or cause critical turning points, but it does give indication that SI-initiatives develop in a force field that crucially involves co-producing other actors. Our proto-theory provides foothold for a rough distinction of aggregation levels in these co-production processes. We thus distinguish the self-organization of an SI initiative, its interaction with surrounding actors, and the clustering into SI fields. Also this overarching threefold division of levels of co-production in l TSI processes can serve to further structure the identification, classification and discussion/analysis of critical turning points. Arguably,

⁸ This open questioning is to be preferred, even if researchers may already have ideas about apparent 'critical turning points'. Such pre-conceived ideas will only be present in part of this research process, however, as the interview population only partly overlaps with that of case studies.

these two general lines of distinction (along the four dimensions of SI co-production and along the three aggregation levels) are sufficiently open to observe critical turning points *as experienced moments in time* –whilst also securing the systematic, harmonized observation needed for meta-analysis. Taken together, these two basic distinctions⁹ make for 4x3=12 categories of critical turning points. The following relatively straightforward observation matrix describes the types of critical turning points that will be recorded through interviews (see figure 1 below).

Local Initiative X ; Actor A							
	Doing	Organizing	Knowing	Framing			
Self-organization	turning point 1	turning point 2	X	X			
Interaction	X	turning point 3	X	X			
Clustering	turning point 5	X	turning point 4	X			

Figure 1 - Matrix for the identification/classification of critical turning points for Local Initiative X as revealed by Actor A

The observation matrix works as follows. First of all, the cells with an 'X' indicate how respondent A for Local Initiative X has declared that no critical turning points occurred of that category. This is something different from an empty cell – which indicates that no observation at all was made on the particular kind of critical turning point. Furthermore, in line with proto-theory as described in Chapter 6, critical turning points can be seen to occur in different dimensions (actions/policies reconsidered, shifts in governance, shaken worldviews, paradigm shifts in perception of others). The rows then help to distinguish between critical turning points as internal crises, decisions to form an SI as an entity, or the alignment or rupture with a particular co-producing actor. Most importantly, all these entries of critical turning points, as far as they're not marked with 'X', should have a time indication that allows to construct sequences of events in processes, and should indicate concrete accounts of co-producing actors involved with that particular, concrete event.

For the sake of exemplification, let's imagine that the (all what follows is hypothetical) SI initiative investigated is "Transition Town – Leuven (BE)", a relatively recent (2010), but strongly structured and embedded (into the local authorities' transitioning strategy), citizen-driven TSI, that operates within the TSI-field of "enhancing citizen ingenuity to strengthen resilience of local systems", relatively directly along the Hopkins/Totness model. The actor who was interviewed is the co-founder of "TT-Leuven" and has highlighted during the interview 5 different turning points of importance to the local initiative, such as:

Critical Turning Point 1 (Self-organization / Doing): August 2012 – decision taken that it becomes unavoidable by now to ask for financial support from the city of Leuven in order to be able to recruit a professional group animator that could accompany/structure monthly strategy discussions in TT-Leuven over next 3 years; asking financial support revealed to mean to first constitute TT-Leuven as a formal, legalized ASBL/VZW (i.e. a formal type of

⁹ These are basic, pragmatic divisions to help distinguish different critical turning points – not theories of how critical turning points work. It is also good to note that both divisions are not mutually exclusive categories – the D,F,O,K are typically intertwined dimensions of SI, and also the aggregation levels do not refer to any kind of hierarchies, but rather to ways of zooming out from a SI initiative.

Belgian association with social objectives); which in turn revealed to mean that "TT-Leuven" had to configure a statutory assembly of 6 voting people, 1 president, 1 secretary, 1 treasurer as well as formal rules of conduct (réglement d'ordre intérieur). (...)

Critical Turning Point 3 (Interaction / Organizing): April 13, 2013 – TT-Leuven led and won a bid for the organisation of the 2013 edition of the "Neighbourhood Day" in Leuven, on behalf of the City of Leuven. Event attracting 12000 citizens, on a day of ateliers & roundtables on local resilience in the park centraal. Mainly sponsored by a bank and soft drink company. Evening conference with B. Hopkins and Serge Latouche, rounded-off by public concert with Stromae and Arno attracting 23000 visitors. While huge publicity push, the accounting revealed to exceed our competencies (and those of the accountant that had been recruited for) and became a major issue: the TT-Leuven asbl was almost closed down (faillissement) by decision of justice and could only be saved when city of Leuven aligned the necessary funding line to guarantee the financial engagements taken. As a consequence, the accounting operations of TT-Leuven were temporarily delocalised at the local authorities' communal accountant.

The observation matrix thus consists of different kinds of critical turning points, and for each local initiative the cells with correspond different moments/episodes, yet also comparable events. This is how the observation table guides and circumscribes data gathering. Apart from its function for data gathering, it also constitutes the needed simple format for data storage, data base construction and database query, however. The next section specifies at which population the observation matrix will be directed. As mentioned, the perceptions of SI initiatives will be triangulated with those of co-producing actors involved with their critical turning points.

7.3 Targeted population

The meta-analysis should be targeted at a population that can be clearly associated with the case study population so as to complement the case studies. Actually that population of 20 networks (and 40 SI initiatives) is a fertile starting point: It has been carefully selected to meet our TSI development purposes (see Chapter 5), and there is also a pragmatic consideration. We can build on established contacts with these particular SI actors, and could make use of and deepen earlier empirical findings.

Still, there are reasons to diverge from the originally envisioned way to construct the metaanalysis population, namely the 200 observations generated through researching 10 local initiatives per network (Cf. DOW) 10 .. As we focus on the evolution of SI-initiatives and the critical turning points they experience that are co-produced with others, the population will be constructed in line with that co-production. The leading principle now is to reach for a strong diversity of critical turning points that is triangulated, i.e. illuminated from a diversity of actor perspectives. The stabilised unit against which the meta-analysis will be developed is the existence of TSI-fields and their dynamical configuration by different TSI-initiatives highlighted by identification of critical turning points.

¹⁰ As discussed in the previous chapter, this set-up rested on a comparative study against welfare contexts, which could practically not be implemented satisfactorily and theoretically would be inadequate to our TSI proto-theory (which contains no indication of welfare schemes as decisive factors/units in networked TSI processes). More precisely, the relatively weak diversity of policy & governance cultures/styles that we could reach out to cover with 20 TSI-networks is abandoned to the advantage of the extremely rich, diverse and spread diversity of critical turning points

As specified below, the change of focus does by no means give up on the commitment to larger-N research (the N=200 as envisioned), nor does it relinquish the diversity in networks and countries for which cases have been selected (Cf. Ch5.). And as indicated earlier, it crucially even increases diversity with regard to the inclusion of other actor perspectives than those of the SI initiatives and networks.

Empirically, the following scheme indicates how the population will be built up *ad minima*. A key side constraint is the allocation of person months accorded to TRANSIT partners (Cf. Chapter 2), of course, as well as the initial (DOW) dispatching of cases among WP5 partners. The scheme thus indicates how the population can be constructed in a way that is instrumental to the analytical objectives of the meta-analysis, arguably easily meets the targets of quantity of observations, and is realistically implementable with the researcher capacity available. The implementation of this scheme, i.e. which case will be developed by which partner and whether some partners investigate more than 1 single case, will be decided upon during the following 3 months (i.e. June-September 2015) until the start of the empirical investigation period).

- ❖ A WP5-partner focuses on **1 SI network case study** (ad minima), i.e. leads and operationalizes the empirical explorations (data gathering and database feeding) with respect to 1 one of the 20 (batch1 &2) cases of TSI-networks. WP5 having 12 partners, the meta-analysis and the empirical explorations will be conducted on **12 cases**. Choice of which partner focuses on which network is basically left to partners, yet in coordination with WP5 lead. Criteria to consider are knowledge of and access to local initiatives (either nationally, regionally, or elsewhere) for the particular network.
- ❖ Each TSI-case/network will be followed by the WP5-partner at the level of **4-5 local initiatives**. Again, choice of which local initiatives is left to case researchers, but knowledge and access should play a major role here. Geographical spread is less important, but desirable. Preferably the targeted SI initiatives should be provisionally able to fulfil the key criterion of being "timelineable". They should have a decent level of activities (in order to generate sufficient number of critical turning points), as well as a decent level of 'historical' evolution, i.e. having undergone a certain level of maturation. However, it should be noted that in this sense that level of activities and hence of probably satisfactory number of occurrences of critical turning points is not necessarily linked to years of existence, but more of the frenzy of activities within the SI network.
- ❖ Each targeted local initiative will be investigated by interviewing (face-to-face and/or telephone) in a qualitative fashion (with a relatively tight set of questions in mind, obviously closely related to cells of the above matrix) **4 different actor perspectives from directly involved actors**: A° from within the local initiatives; B° from local initiatives/networks that play into the same TSI-field, i.e. "friendly alliances"; C° policy actors related to the SI initiative or the initiative's SI-field; D° 'external' actors that engage positively with the emergence of the TSI-field the local initiative is aligned to, e.g. local environmental NGO, ethical business partner, third sector.
- Actors will be asked to reveal and discuss a certain number of critical turning points. While this will strongly depend on each local initiative, and probably on the case networks, an indicative **minimal number of those points** that still allows to perform a promising level of abstraction when meta-analysing the data, **is around 5**

per local initiative¹¹. This identification of critical turning points will be operated sequentially over the types of actors; starting from within the local initiative itself (interviewing the actors of the local initiative), then developing the interviews with the 3 additional types of actors into an exercise of triangulation; i.e. mainly revealing with the 3 other types of actors their interpretation of the turning points identified within the local initiative.

❖ Operationally, such a configuration asks case researchers to interview¹² a minimum of 20-25 actors linked to 4-5 local initiatives (example per local initiative a minimum of 2 persons from within local initiative, 1 from policy, 1 from NGO, 1 from adjacent network/initiative). And asks case researchers to identify and get material for 20-25 turning points (5 per local initiative). The material for each of the 20-25 turning points will discussed over 4 different actor perspectives, hence leading into 80-100 narratives/discourses on turning points. It will be these 80-100 discourses/narratives that will be fed into the database, and be the basis of the 'repository of TSI'.

In short, this configuration reaches for and arguably can approximate the following minimal numbers of data occurrences with which the meta-analyses will be performed:

12 cases/networks and 48-60 SI initiatives (4-5 local initiatives per network)¹³

5 critical turning points identified per local initiative, i.e. a total of 240-300 inception points (4-5 local initiatives per network and 12 networks).

240-300 turning points discussed, investigated, developed over 4 actor perspectives, means 960-1200 accounts of critical turning points.

In the end, it is with these +1000 interpretations on +200 critical turning points that the meta-analyses will be performed. This will serve the processing of those time-marked experiences into phases and co-evolutionary pathways, and to establish the evolutions of the TSI-fields and the linked clustering. In these analyses the local initiatives are the focal (embedded) actors.

7.4 Research process: Towards meta-analytical conclusions

Having explained and outlined the meta-analysis of (co-produced) Critical Turning Points, the direction for further WP5 activities has been set. In order to proceed from this meta-analysis set-up towards the eventual meta-analysis synthesis document D5.4, there are some crucial tasks for the next three months (June to September 2015) that now have become clearer. Having established empirical focus for meta-analysis, a format (observation matrix) for empirical data/database entries and a clear-defined population for meta-analysis, there are several immediate actions that will be followed-up in parallel:

¹¹ This corresponds with less than half of the 12 CTP categories, and promises to yield a sufficiently large number of CTP observations in total.

¹² In principle the CTP could also be researched through other observation techniques, but the interviewing is most easily standardized across cases. Moreover, interviewing yields actors' accounts of CTP, including their framings – which is valuable input for a database of experiences. The precise format of these CTP accounts can be fine-tuned through the TRANSIT concepts of TSI narratives and theories of change.

¹³ To be sure, the selection of these 48-60 initiatives will be in accordance with allocated person months, and will be coordinated by the WP5 researchers.

- ❖ Elaborate population and observation matrix into protocol for empirical research
- Develop database structure based on observation matrix, and fine-tune observation matrix into questionnaire
- Subcontract database developer for implementation of database structure
- ❖ Involve practitioners' reference group with development and testing of database structure
- ❖ Deliberation with TRANSIT partners about selection of meta-analysis population
- Coordination of scope/selection of respondents with WP4 team

These further preparations will work towards the next phases of database population and actual analysis, from September 2015 onwards. Referring to Chapter 2, this involves the activities of conducting empirical research, guidance of empirical research by WP5 team, populate database with empirical research findings, develop protocols for meta-analysis, conduct meta-analysis, coordinate meta-analysis findings with theory development (WP3) and cross-cutting themes (WP2), and deploy database for communication and training purposes (WP6).

8 Towards a TSI process database and a 'repository of critical turning points'.

The "meta-analysis of cases" (DOW) as conducted through WP5 will be technically operated via the intermediary of a 'TSI process database' (8.1), which in itself will establish the backbone for the main general public output of WP5, i.e. the 'repository of critical turning points' (8.2). WP5 is operationalized through a double-sided interface. A first side of the interface consists of a database fed by empirical researchers with the data gathered during their investigations of the local initiatives and networks - including their identification, classification and discussion of 'critical turning points'. This interface is hence enabling to feed/communicate the data to the meta-analyses and is effectively interlinking case researchers with WP5-analysts. In this sense, it is a means to link data occurrences with quali-quantitative methods for analysis. The second side of the interface is to link the 'narratives of critical turning points' as revealed by the investigated actors with accounts of evolutions and pathways of social innovation networks and initiatives. While the first level of the interface is entirely directed towards internal research analytics, the second level is part of dissemination and engagement strategies.

In the following, we start exploring how both aspects will be developed in the immediate future. Considering that the database structure and its technical 'tool' (i.e. the repository) need to be operational (i.e. tested and online) by September 2015, that much of the technicalities need to start being settled by end of June 2015 (D5.2). The following is only a to be taken as an outline of principles.

8.1 Towards a TSI process database

It is crucial to specify that the 'process database' and the 'repository of critical turning points' are enabled by the same 'tool'; an online form into which case researchers are to report their qualitative case study investigations. These case study data will – very basically - be following the observation matrix outlined above (seection 7.2). Data from one case study will consist of (minimum) 4-5 actor-based observation matrices per local initiative, with 4-5 local initiatives per case study and each observation matrix containing a minimum of 5 actor-identified, researcher-categorised, qualitatively-described 'critical turning points'. The description of which will be enriched by quotes, citations or any other direct source of information. One underlying consideration is that TRANSIT case studies will be following the selection of batch 1&2 cases from WP4 and hence can build on a preceding research effort into knowing very precisely each TSI network. Another consideration is that, despite the numerous efforts currently conducted to list or map social innovation initiatives over Europe and the World, there seems to be virtually no 14 exercise out there which gathers descriptive material of initiatives in a systematic fashion. Just like is done in many other database initiatives, a certain level of factual and descriptive (partly quantitative) case study information will be collected as well.

The 'TSI-process database' - very basically – will consist of the technical means to provide a case researcher with pre-formatted observation matrixes on an on-line platform with the help of which he communicates empirical material (i.e. data on critical turning points) to the WP5-team (for analyses). The observation matrix itself will be elaborated (D5.2) into a comprehensive, detailed interview guide for case researchers. As the aim is to reveal and

¹⁴ Our systematic exploration of existing databases and mapping exercises is still ongoing though.

identify turning points *with* actors, the turning points' descriptions need to be tightly structured in order to allow the meta-analyses to rely on linkable data points (comparability). As a consequence, the observation matrix enabled online for data gathering and data communication will not merely consist of an empty observation matrix, but will allow researchers to feed their material into a quite structured sub-layer of information for each cell of the matrix (i.e. a sub-layer that basically repeats the interview guidelines & questionnaire).

As the material gathered being centred is on *multi-actor* TSI *process* data, i.e. data that is able to account for co-production dynamics, there are 2 complications (in terms in research process) to be accounted for:

- ❖ One of the important points of refinement from the 2-dimensional matrix is to instigate researchers to provide for information on the linkages between turning points; i.e. information on the co-production dynamics which will provide for the necessary initial material with respect to the TSI *process*. Basically, how one cell of the observation matrix influences the other(s).
- The second complication will ask researchers to provide linkages between individual actors' perceptions/accounts of critical turning points, and to provide an information level on the triangulation between actor perspectives on critical turning points. These linkages might in some cases well exceed the individual local initiative (hence, that there might be turning points which interlink different local initiatives from the same case study), and hence allow to interlink not only different actors' observation matrixes, but observation matrixes from different local initiatives (or even case studies).

As mentioned, the database itself will be structured in detail and technically implemented (including testing) from June to September 2015. The objective being obviously to be operational when empirical investigations are to start.

8.2 Towards a 'repository of critical turning points'

As directly as the TSI process database is serving to fuel analytics, the information contained therein will also be used to provide a dynamic picture of the co-production dynamics as they emerged over period within the different TSI-initiatives and networks. The objective is indeed to provide to the TSI-community a series of web-based images on how dynamics of co-production occurred in initiatives. Considering that the data gathered (i.e. the turning points) will be "timelined", geographically spatialised and interlinked to build up a dynamic image of how turning points grow into phases of TSI-processes, the database itself can be used to nourish a series of dynamic representations of processes. The data will also be used to propose timelines, as well as mappings of turning points over differing TSI-initiatives and networks.

The wealth of information will be feeding a 'repository of critical turning points'. Critical turning points will be presented via an online visualization giving account of their dynamics, their interlinkages, the multi-actor dimensions, their insertion into TSI-fields, their geographical spreading. Information provided online will be both factually-quantitative (e.g. How many? Where? Who?), but mostly of a qualitative-narrative nature. The objective is to present (per turning point, and per co-production phase) layered information according to each actor's perspective on the turning point. Information provided will consist of a series of quotes, excerpts of interview transcriptions. Basically, these will fragments selected from the qualitative information provided by case researchers into the database of TSI-processes.

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Annex – overview of the dataset of 20 transnational SInetworks (as in WP4)

	Transnational Networks under study in TRANSIT project	Case study coordinator
1	The Impact Hub: Global network of social entrepreneurs	DRIFT
2	Ashoka: Network for financial support to social entrepreneurs	ESSRG
3	Time Banks: Networks facilitating reciprocal service exchange	UM
4	Credit Unions: Different types of credit cooperatives	UDC
5	RIPESS: Network for the promotion of social solidarity economy	ULB
6	FabLabs: Digital fabrication workshops open to local communities	SPRU
7	Hackerspaces: User driven digital fabrication workshops	SPRU
8	Living Knowledge Network: Network of science shops and other community-based research entities	AAU
9	DESIS-network: Network for design for social innovation and sustainability	UFRJ
10	Global Ecovillage Network: Network of ecovillages and other intentional communities	воки
11	Transition Network: Grassroot communities working on 'local resilience'	UEA
12	INFORSE: International network of sustainable energy NGOs	AAU
13	Slow Food	UDC
14	Via Campesina	UNQ
15	Co-housing	UNQ
16	International Observatory for Participatory Democracy – Participatory budgeting	UFRJ
17	P2P Foundation	IHS
18	Living Labs	IHS
19	Basic Income	UM
20	Global Seed Movement	ESSRG