

ANALYSING THE SOCIAL INNOVATION PROCESS:

The Methodology of Social Innovation Biographies

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*Social innovation
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ABSTRACT

The dynamics of social innovation processes are of a complex nature and an underdeveloped research field. Social Innovation Biographies (SIBs) are a valuable methodology to reflect the evolutionary character of the dynamics of the social initiatives' innovation processes in deepening the understanding of development paths, knowledge trajectories and stakeholder interactions at the micro-level. SIBs provide a comprehensive methodological solution including desk research, narrative interviews, semi-structured interviews, egocentric network analysis and triangulation as a step-by-step approach. SIBs allow to analyse social innovation cases and underlying processes in three dimensions: horizontally, vertically and comparatively. Besides its various advantages, SIBs also address methodological challenges related to the selection of critical cases, mobilising interviewees, securing the quantity and quality of information, overcoming selectiveness and reinforcing confidence.

1. Introduction

During the past decades, we have seen considerable advancements in developing technology-related innovation concepts, whereas the idea of social innovation remains yet underdeveloped. Hence, it comes as no surprise that research on social innovation is still in its infancy. Little attention has been devoted to understanding social innovation processes in its myriad of facets. Likewise, national innovation strategies tended to concentrate on supporting business and technological innovations, and refrained from developing comparable strategies to understand and support social innovation (Mulgan, 2006; Phillips, 2011). Renewed academic interest in social innovation and growing policy awareness prompted innovation research to advance understanding social innovation and underlying innovation processes. To this end, Cajaiba-Santana (2014) called for more research into social innovation processes as it can provide a comprehensive framework for the creation and institutionalisation of practice including fundamental guidance for actors moving into intentions in a broader social context.

Although social innovation lacks a common understanding more recently the idea that social innovation offers a promising avenue to sustainably tackle socioeconomic challenges (e.g. youth unemployment, migration, ageing population, poverty) – that have clearly been exacerbated by the economic crisis – is increasingly acknowledged. In this sense, the economic crisis is described as a fundamental ‘game changer’ driving social innovation in this century (Avelino et al., 2014). It is argued that the main effect of the poor conditions is a continuing lack in the supply of welfare services and the difficulty to apply better solutions for the growing segments of the population, which in turn increases the rates of marginalisation and vulnerability. In this regard, state and market failures are opening spaces for social innovation and are thus being interpreted as ‘unintentional’ drivers of social innovation; they create diverse needs for new solutions, and open ‘windows of opportunity’ for new actors and distinct forms of collaboration that cut across sectorial boundaries (Terstriep et al. 2015).

As social innovation becomes more prevalent and, at the same time, more complex methodological approaches are needed that are able to better cope with the complexity of innovation processes. This paper is a response to Cajaiba-Santana’s call to action through a methodological contribution to the study of social innovation processes and the debate on the multiplicity of research approaches. It extends previous work by proposing *Social Innovation Biographies (SIBs)* as case study methodology that allows to investigate social innovation processes while accounting for its complexity. The research is led by the overall question whether an additional case study design is necessary to investigate the dynamics of social innovation processes to advance understanding its economic and social dimensions.

Compared to other forms of innovation, social innovation remains a marginal topic in the innovation literature. Researchers are still in search for common definitions and research methodologies to analyse the comprehensive world of social innovation as driver for social change. At present, we do not have full insights into the emergence of novelty and the generative process by which social innovation is framed. In the past, case study research focused on explaining the peculiarities of implementation and diffusion of successful social innovation without considering the time and context in which the process took place. This is one important reason why we need an approach that provides insights into social innovation development process over time, actors involved, resources used and milestones achieved. Furthermore, innovation as a random or non-linear process calls for advanced research approaches, because the source of innovation is external to the system and the factors affecting the innovation development are not observable and endogenous (Van de Ven et al., 1999: 3-4). Due to its context and system dependency studying the social innovation process calls for new empirical, theoretical and conceptual approaches able to visualise the whole picture of the process (Mulgan, 2006; Murray et al., 2010; Howaldt & Schwarz, 2010; Short et al., 2010).

Rooted in evolutionary thinking (Dosi, 1982; Nelson & Winter, 2002) SIBs provide a promising approach to capture development paths, knowledge trajectories and stakeholder interactions at the micro-level, i.e. the single innovation. Drawing on ‘inverted’ Darwinsim of social innovation that «(...) attends to how action can change the environment as well as the actors within it» (Mulgan, 2012), the proposed methodology serves the variety of concepts to understanding institutional and social change. Innovation biographies are basically an in-depth *open qualitative biographic-interpretative methodology* for analysing narratives of participants’ experiences in relation to the larger cultural matrix of society or economy (Wengraf, 2001). Originally developed in anthropology

and psychology, it has also found its way to the study of other social or economic processes (Creswell, 2013). Through the combination of narrative interviewing techniques, network analysis and triangulation is possible to reconstruct innovation processes from the first idea to its implementation (Butzin, 2013; Butzin & Widmaier, 2016). The author's adaption of the methodology to social innovation open up new possibilities to collect empirical evidence: By following the process of creation at individual, structural and contextual level, the biography of a social innovation is reconstructed. SIBs prove to fuel the iterative process of theoretically-informed empirical research, empirically-informed theorising and the generation of evidence-based knowledge. Distinct from other biographic methods, a SIB is neither a biography of an organisation nor the individual conducting the innovation, but the innovation process itself. Therewith, the approach places the innovation process in the centre of analysis.

The remainder paper is structured as follows. We first describe social innovation research challenges and methods from existing literature. The next chapter deals with the introduction of the research procedure and applied techniques of SIBs illustrated by the empirical research conducted in SIMPACT¹ project. This is followed by a discussion of SIBs as potential solution addressing some of the existing methodological research challenges.

2. Social Innovation research challenges & method

Research on social innovation, its definition and impact has gained momentum in the last decade, but has not yet resulted in a common understanding. In the late 1980s Zapf (1989: 177) defined social innovation as «*new ways to reach aims, in particular new organisational forms, new regulations, new life styles, which alter the direction of social change (...)*». In the following years, several authors criticised the naivety of these early proponents to discuss social change as a result of social innovation in absence of any empirical confirmation.

In general, research tries to integrate approaches that classify innovative ideas as single projects comprising a stable progress, fix actor networks and certain resources. But innovation processes are more complex and characterised by uncertainty difficult to grasp by research. Based on longitudinal field studies, Van de Ven et al. (1999) have found that the process of developing innovation «*(...) reflects a nonlinear cycle of divergent and convergent activities that may repeat in unpredictable ways over time*», i.e., the innovation journey (Van de Ven, 2017: 39). Besides uncertainty, approaches to analyse actor networks are confronted with the *problem of selectiveness* (cf. Section 4: *Challenge 4*) due to its non-comprehensive inside view on involved actors, their characteristics and interactions. Finally, the many case studies of social innovation in different fields focus foremost on an individual case rather than on comprehensive and comparative designs allowing for the identification of common patterns (Mulgan, 2006; Murray et al. 2010). In addition, case studies have been used to identify the dimensions of social innovation, but did not consider differences in organisational forms, institutional contexts, and actor constellations etc. in the long run (Schmitt, 2014).

¹ «SIMPACT – Boosting the Impact of Social Innovation across Europe through Economic Underpinnings» received funding from the European Commission's Seventh Framework Programme for research, technological development and demonstration under Grant Agreement 613411.

Nevertheless, some efforts have been made to cope with outlined problems and the ‘fuzziness’ of the concept of social innovation. Schmitt (2014), for example, examined the hypothesis that shared value is a «*radical social innovation*» that faces lock-in effects and as a differentiation strategy can produce economic success in small and medium enterprises in German apparel industry. Despite its usefulness making use of a single informant design by means of exploratory expert interviews poses several limitations. Key informant bias may result from differences in individual perceptions, characteristics and motivations of the interviewed expert (Söhnchen, 2009; Homburg, et al. 2012). In addition, as key informants are not selected through random sampling but the level of expertise, it is possible that certain informants are overlooked in the survey design or cannot be reached for interviews. Choosing the wrong expert leads to information asymmetries and interpretation errors. That is why *mobilising the most fitting interviewees* (cf. Section 4: *Challenge 2*) is an important aspect of successful data collection.

Next to expert interviews, problem-centered interviews and focus group interviews are common practice in empirical social research. Problem-centered interviews derive from the narrative interview, where the interviewee is stimulated to tell a story to a specific problem without offensive interruption by the interviewer, but by passing balls between interviewer and interviewees at the right time. This methodology bases on a multi-level approach including techniques like e.g. desk research, focus group interviews, standardised interviews (Corti et al., 2000). The challenge of this method is the non-consistent selection of techniques what makes *reinforcing confidence* very difficult (cf. Section 4: *Challenge 5*) and a comparison between cases almost impossible. Moreover, the introductory question and the interview guidelines differ for each case that may result in difference in the *quantity and quality of information* (cf. Section 4: *Challenge 3*).

As further effort to better understand the world of social innovation, ‘mapping’ social innovation cases has become a widely-applied method to collect qualitative as well as quantitative data for analysing advanced research questions and for supporting social innovation actors in decisions including funding, support, investment. But, several differences occur in the design and application of mapping approaches in conducted research projects. The most common critique is that mapping methods often lack adequate mechanisms to observe impact due to its unilateral consideration of information as well as the ignorance of the multiplicity of social innovation and its impact. In addition, varying understandings of social innovation and distinct research designs neither allow for the generalisation of findings nor for cross-study comparative analysis (Pelka & Terstriep, 2016).

In fact, qualitative methods using interview techniques are often criticised for their relativism and subjectivity. Another criticism focuses on *case selection* (cf. Section 4: *Challenge 1*) as applied selection criteria often remain vague. Distinct from quantitative research, reliability and validity qualitative research is assessed against the research process and hence its transparency has to be made explicit when representing research results (Konstantatos et al., 2013).

Overall the literature review indicates that research methodologies differ a lot and are striking to develop a holistic research design. It is argued that the incomplete analyses have direct effects on the social innovation practice resulting in knowledge deficits which are responsible for lacking funding, advice and support as well as hinder the innovator to be effective (Mulgan, 2006). As regards methodological fit in field research, Edmondson and McManus (2007) suggest qualitative research

approaches as most appropriate for ‘nascent’ theories – i.e. theories that propose tentative answers to novel questions of how and why. The authors argue that social innovation theory and in particular its economic foundation is in its ‘nascent’ stage. Accordingly, the elaborated qualitative case study methodology of SIBs is anticipated as being an appropriate approach.

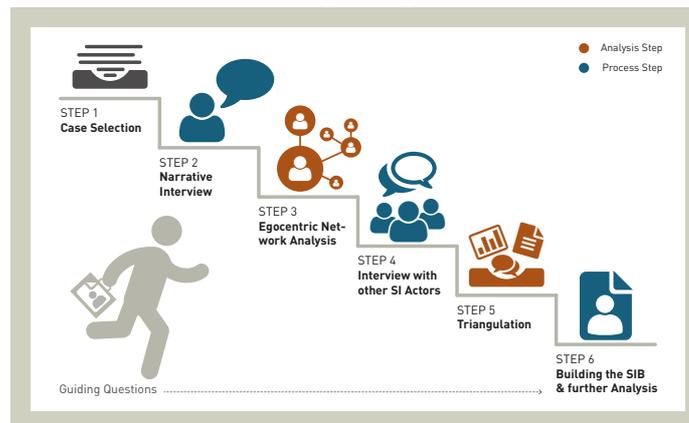
3. Research procedure of Social Innovation Biographies

As for any methodology, an underlying research question with a special focus and defined subject matters are also essential for the concept of SIBs. In this paper, we draw on the research conducted within SIMPACT project with its focus on the economic foundation of social innovation targeting vulnerable and marginalised populations. SIBs were utilised as methodology to test theoretically derived hypotheses on social innovation components, objectives and principles. *Components* comprise actors and resources as active production factors and institutions as given context factors. *Objectives* comprise goals and motivations of actors to engage in a social innovation, which could either be economically or socially driven or any combination of these. Finally, *principles* refer to concepts or strategies of efficient allocation of resources corresponding to the underlying objectives of the involved actors and modes of governance. It was assumed that the interplay between the elements and the dynamics between the categories drive social innovations’ economic and social impact. For example, subject to the actors involved in the innovation process available resources such as knowledge, social and relational capital plus finance were expected to vary, and therewith affect the scope of action. Likewise, the specific institutions actors are embedded in were assumed fuel or hinder social innovation, while in turn – over the course of time – actors’ innovations ideally result in institutional change. Moreover, actors’ objectives were assumed to be shaped by actor constellations and motivations on the one hand and available resources on the other.

For each hypothesis a number of guiding questions (Terstriep et al. 2015) was formulated which had to be considered when carrying out the SIBs. The guiding questions proved to be a useful instrument for the narrative interview as they allowed to check whether all important aspects about the innovation process have been mentioned by the interviewee as well as for the semi-structured interviews to guide the informant through the different aspect relevant for the different stages in the innovation process. The structure of the guiding questions in SIMPACT proposes the following thematic blocks: (1) context and framework conditions, (2) problem addressed, (3) motivation and core solution, (4) resources and business strategy, (5) network, governance, support and obstacles, (6) outcomes and impact, as well as (7) measurement.

Figure 1 illustrates the six building blocks of the SIB research procedure which together make up the methodology. The presentation of the methodology as a step-by-step procedure is primarily designed for reasons of clarity and to illustrate how the different building blocks are interlinked.

Figure 1. SIBs – Step-by-step Procedure



Source: Terstriep et al. (2015)

Case Selection and what is considered as innovative is subject to the research context of the SIB. Within SIMPACT the thematic areas employment, migration and demographic change plus gender and education as transversal themes constitute the unifying elements of the single cases and functioned as a first selection criterion. Each case is embedded in a specific context of which the welfare regime is a building block and serves as second selection criterion. Moreover, a case has to correspond to SIMPACT's working definition of social innovation². Based on these selection criteria a meta-analysis of existing cases was conducted to identify successful and less successful cases. Having its point of origin at the micro-level, preparatory well-conducted *desk* research is crucial to ask the relevant questions in the narrative interview and even more importantly to understand the context of the social innovation. Documented in so-called 'ID Cards', desk research provided related background information such as problem addressed, specific solution, context specifics (date of initiation, location, geographic scope etc.), target group and key actors involved.

Narrative Interview. Backbone of the SIB is the narrative interview with the primary responsible person(s) for the innovation process. Or as Wengraf (2002: 141) emphasises «(t)reated as a text, it is the pivotal focus of analysis, supplemented by material developed by further questioning». In the narrative, the interviewee is asked to tell the story of the innovation process from ideation to development and implementation. Guiding questions³ in form of a checklist summarise the areas ideally to be covered by the interviewee without interrupting the 'flow of words'. Through this narrative interview, the biography of the social innovation process with all its connections inside and outside the organisation becomes visible. The interviews are recorded and subsequently transcribed. Working in spatially dispersed research teams, in SIMPACT methodological guidelines were provided to ensure that the methodology is standardised enough to be employed without confusion and unwanted variation, yet not omitting its biographic-narrative nature.

² «Social innovations refer to novel combinations of ideas and new forms of collaboration that transcend established institutional contexts with the effect or empowering and (re)engaging vulnerable groups either in the process of social innovation or as a result of it» (Terstriep, 2016: 6).

³ With SIMPACT among other the following areas were expected to be covered: actors involved in the innovation and their role (network), necessary resources to bring the solution life, motivation and core solution, problem addressed, context and framework conditions.

Egocentric Network Analysis. Based on the first bibliographic text, subsequent desk research aims at identifying the actor network around the social innovation. In general, egocentric network analysis asks for the relationships of one ego (i.e. an organisation or person) to different alters (i.e. other actors involved in the innovation process), but does not analyse the entire network (Wassermann & Faust, 1994). Applied to social innovation, the solution itself forms the ego (cf. Figure 2). To shed light on the actors involved in the evolution process, modes and frequencies of interactions among the key actors, types of interactions, sectorial affiliation and knowledge exchanged are analysed.

Additional semi-structured interviews⁴ are conducted to enrich and complete the bibliographic picture and to identify additional interview partners in terms of snowball sampling (Strauss & Corbin, 1990; Wengraf, 2001; Yin, 2014). Relevant interviewees can be users, as well as actors from public, private, informal or non-profit sector. Subject to the complexity of the network and relevance of the interactions in the innovation process in SIMPACT 2 to 5 additional interviews were conducted taking on average 1 to 1.5 hours.

Triangulation means apply distinct methodologies to one object of study, which in this case is the social innovation process (Flick, 2011). Ideally, the triangulation procedure contains data acquired at distinct level. In the case of SIBs triangulation combines data from the *individual, structural and contextual level*. The various interviews constitute the individual level as they reflect interviewees' own perspectives. Egocentric network analysis provides data on involved actors, modes, frequencies, and geographical spread of interactions, i.e. the structural level. Finally, desk research by means of document analysis enriches the biographic picture at the contextual level.

Building the SIB. Writing and analysing the SIB «*is a process of telling a real, detailed and 'thick' story covering all relevant aspects*» (Butzin & Widmaier, 2016: 227). A description is considered «*thick*» when it is rich in information and has the «*greatest impact on the development of knowledge*» (Patton, 2002: 236). Taking the coherent story as basic data, further analysis - such as comparative case analysis – can be conducted by means of qualitative content analysis which necessitates coding the biographic text.

4. Methodological challenges

SIBs proved a useful approach to capture actors' interactions and knowledge flows, and to gain detailed insights into the evolution and development of social innovations. It yields many opportunities to cope with potential key informant bias by combining narrative and semi-structured interview techniques with desk research, network analysis and triangulation. Despite its numerous advantages, the methodology address some methodological limitations and challenges discussed in the following in the logic of the step-by-step approach.

⁴ The content and questions to be answered are subject to the concrete social innovation and are closely related to the initial narrative interview.

Challenge 1 | Selecting ‘critical’ Cases

Selecting relevant cases is a difficult task as its contribution to answering the research questions can only be assessed once all information is collected and analysed. To mitigate this limitation, the SIB methodology recommends selecting potential cases which are well documented by information publicly available (e.g. website, databases, platforms). This selection of cases can be recorded in a set of identification (ID) cards for the moment, which serves as data base selecting cases for in-depth analysis.

‘Tausche Bildung für Wohnen’ (‘Exchange Education for Accommodation’, TBfW) is a good example of a well-documented case. As is illustrated in the ID Card below, the core information on the social innovation was publicly available. TBfW was born in summer 2011 as preventive action against cultural exclusion, social discrimination and low education of children in Duisburg-Marxloh. The solutions’ innovativeness lies in the combination of supporting deprived children, providing affordable living for students, lowering high vacancy rates and providing urgently needed assists for urban and religious institutions, resulting in a win-win-win situation: Deprived children in the district is offered an intensive after-school assistance for homework, learning, language skills and spare time activities provided by engaged young people who in turn are provided rent-free housing in a shared apartment.

Figure 2. ID Card ‘Exchange Education for Accommodation’

CITY / COUNTRY	Duisburg, Ruhr Area / Germany
MAIN ACTORS	Christine Bleks Mustafa Tazeoğlu Tausche Bildung für Wohnen e.V.
IMPORTANT ACTORS IN THE INNOVATION PROCESS	Vodafone Stiftung help & hope Lathman & Wattkins
THEME ADDRESSED	Migration, Demographic Change, Education, Poverty
TARGET GROUP(S)	Children from deprived households, migrants, locals
DEVELOPMENT STAGE	Children from deprived households, migrants, locals
GEOGRAPHIC SCOPE	local (neighbourhood)
YEAR OF INITIATION	2011
TYPE OF ORGANISATION	Association
SIZE OF ORGANISATION	Micro < 10 employees

Source: Terstriep & Kleverbeck (2016)

Challenge 2 | Mobilising Interviewees

The methodology’s reliance on interviews poses a further challenge for researchers. While successful social innovators participation is more likely, difficulties may arise when actors are asked to reflect on failed social innovation. Closely related is the determination of the necessary number of cases to sufficiently valid answer the research question(s). In this regard, the authors’ experiences indicate four important aspects to be considered:

1. Against the backdrop that only a limited number of cases can be analysed due to the time-consuming research procedure, it is recommended to choose cases that best exemplify the thematic area addressed in the given context, i.e., critical cases.
2. The organisation should be approached straightforward by clearly expressing the aims of the interview. The researcher should provide a short introductory text explaining the procedure and aim of SIBs while refraining from presenting insignificant information about the project itself: Our experiences indicate that interviewees seldom seemed to have read more than a short summary of the project and its aims.
3. Incentives and communicating added-value eases social innovators mobilisation. Incentives that have been appreciated by the interviewees are, for example, provision of the SIB and the results of the comparative case analysis. Added value, in particular for small organisations, resulted foremost from the increased recognition of the social innovation at national and EU level. In addition, the SIB helped social innovators to identify gaps and missing links in their networks.
4. According to the rules of ‘Good Scientific Practice’, it is recommended to guarantee confidentiality of sensitive information unless agreed otherwise. To guarantee confidentiality, the participants will receive the preliminary documentation of the SIB for comments and approval. The brisance of confidentiality became highly apparent in social innovation initiatives as competition for funding increases.

Challenge 3 | *Quality & Quantity of Information*

The formulation of the initial question for the narrative interview as stimulus for a free reflection on the innovation processes in a continuous flow of words is crucial. In this regard, the demarcation of the start and end of the innovation process shows to be difficult in practice. Following Butzin and Widmaier (2016), a clear starting point can be established by asking for the context in which the idea for the social innovation first arose, whereas the implementation of the solution can function as end point.



The first award was rocket fuel for our start-up! The recognition of our idea was even more important than the high amount of prize money. The project accompanying consultation was worth gold. The collaboration with Social Entrepreneurship Academy (SEA) and the Vodafone Foundation was uncomplicated, personal and very helpful.

Christine Bleks, Initiator of TBfW

The flow of words is maintained by providing a straightforward ‘narrative corridor’ by asking for the involved actors, the timeline, the milestones as well as hindering and impeding factors. More detailed questions at the end of the narrative aim at substantiating important aspects, which have not yet been described clear enough by the interviewee. In this regard, the methodology allows for information lacks, which can be closed by further interviews. Furthermore,

it is to be considered that the quality and quantity of the narrative information is considerably affected by the willingness and ability of the social innovator to openly talk about the innovation process as the above statement illustrates.

In practice, there may be situations in which the interviewee simply is not willing to speak about specific aspects of the innovation process for intellectual property reasons. Also, it might occur that a well-expressed detailed story leaves aside smaller failures or problematic periods, puts certain actions in an inadequately positive or negative light, or may not mention major failure or obstacles.

Partly, this can be compensated by additional interviews carried out with further actors involved in the innovation process. However, some degree of residual risk is likely to persist, even after balancing the various perspectives.

Challenge 4 | Selectiveness

Emphasising the relationships of one ego to different other actors involved in the innovation process, egocentric network analysis is explicitly selective. It focuses on the reconstruction of the network from the interviewee's perspective and accordingly grasps only specific parts of a more complex network. Opposed to this drawback, the advantage of egocentric network analysis is its immediate access to the actor constellation, detailed information on type, modes and frequencies of interactions as well as actors' role in the innovation process (cf. Figure 3). This allows for analysing impulses on the innovation process, how they build upon each other, cause feedback loops or might even change radically in course of time.

Figure 3. Extract from 'Exchange Education for Accommodation' Egocentric Network

NAME	TYPE	LOCATION	ROLE	INVOLVEMENT		
				DATE	DURATION	INTENSITY
City of Duisburg	Public	Duisburg	Promoter	10/2014	15 months	monthly
Elly-Heuss-Knapp Gymnasium	Public	Duisburg	Supporter	08/2014	17 months	weekly
start social e.V.	Non-profit	Munich	Promoter	12/2012	31 months	monthly
Vodafone Stiftung	Non-profit	Duesseldorf	Promoter	01/2012	43 months	monthly
Deutsche Bank AG	Private	Duisburg	Promoter	10/2014	15 months	anually
TBW e.V.	Public	Munich	Inner Core	01/2011	55 months	daily
...				

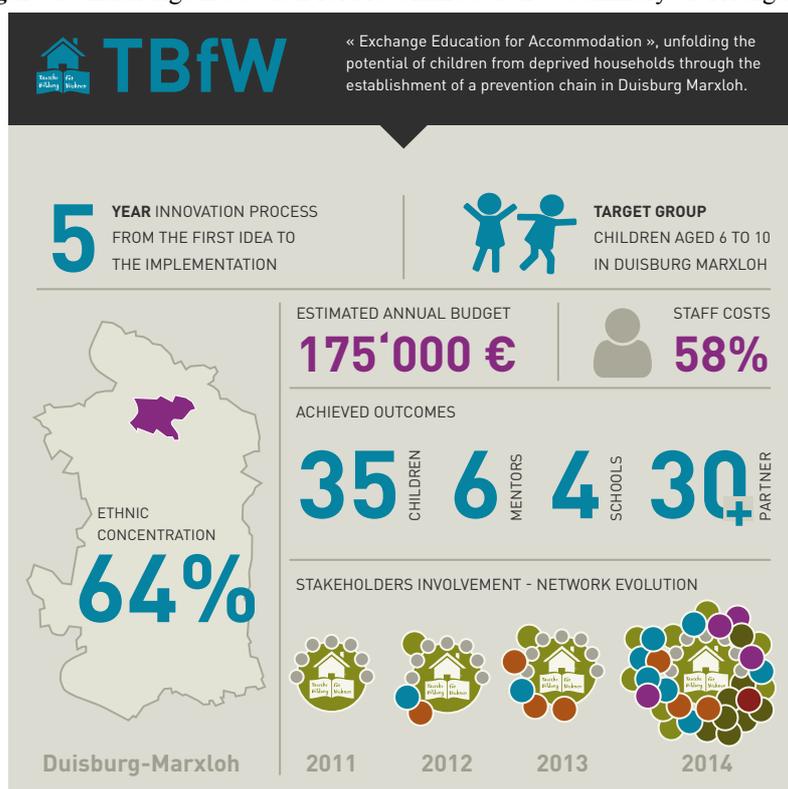
Source: Terstriep & Kleverbeck (2016)

Just as the egocentric network analysis, by making use of snowball sampling the identification of additional interview partners is selective. Accordingly, the decision on the additional interviewees must be taken carefully. In case of choosing the wrong interview partners, the SIB endangers distortions of information and a vague timeline resulting in a fragmented picture of the social innovation. As outlined earlier, according to the authors' experiences additional 2 to 5 interviews showed to be sufficient to draw a coherent picture of the entire case. This can be seen both as advantage and drawback. On the one hand the interviews with further actors have a validating und complementing function. On the other hand, researchers should note that the interviews are guided by questions on issues arising from previously collected information and therewith, rely on the quality and quantity of the narrative information collected initially. In addition, questioning the different actors bears the risk of fragmentation, duplication or conflicting results. In such event, the researcher should investigate the causes of such mismatch either by repeated or additional interviews.

Challenge 5 | Reinforcing Confidence

As outlined in section 3, in case of SIBs triangulation combines data from the individual, structural and contextual level. The complementary techniques of data collection are applied under the assumption that weaknesses inherent in one approach will be counterbalanced through the strength of others. One of the major advantages of triangulation is that it allows to ask distinct questions about the social innovation process while making use of the appropriate method for each question, and therewith, strengthens research findings. In addition, triangulation corresponds well to the open interpretative approach of SIBs. Yet, as triangulation can be conducted in different ways it poses the challenge to first elaborate an adequate strategy including decisions on when to use what method at which level of analysis (for a more detailed overview cf. Jack & Raturi, 2006). To achieve the maximum output, one should not only collect data on distinct levels, but choose methods with complementary strengths and ideally non-overlapping weaknesses. In the framework of SIBs this is partly achieved by combining interview techniques with egocentric network analysis and desk research by means of document analysis.

Figure 4. ‘Exchange Education for Accommodation’ - Summary of Triangulation



Source: Terstriep & Kleverbeck (2016)

In summary, analysing and interpreting triangulated findings is a difficult task as each applied data collection methods presents unique challenges and trade-offs. Forasmuch, researchers should be careful in generalising results. This is all the more true for SIBs as the research method focuses solely on the innovation process without reference to broader contextual determinants. In summary, SIBs offer an alternative to other forms case studies as it allows capture the reality of social innovation processes. It provides in-depth information on which one can reflect existing concepts, elaborate new concepts including support mechanisms, and to introduce new theoretical consideration to the debate

of social innovation.

5. Implication for SI case research

Unfortunately, social innovation case research uses several approaches which are sometimes not compatible with each other and do not allow for comparing the results of later analyses. SIBs offer a comprehensive approach to collect qualitative data on in-depth information about the social innovation process and thereon provide a good basis for further comparative analyses. To identify what works, how and why for socially and economically successful innovations, it is necessary to gain detailed insights into the processes of social innovation throughout its lifecycle. This is what SIMPACT's empirical research focuses on by systematically collecting data through SIBs and systematically analyzing these.

The development of cases should adopt different research methods, so that the same phenomena are investigated from multiple perspectives. «*By combining multiple observers, theories, methods, and empirical materials, researchers can hope to overcome the weakness or intrinsic biases and the problems that come from single-method, single-observer, single-theory studies*» (Jakob, 2001). The cases collected and reprocessed through SIBs have been observed and interpreted along three directions: (1) **horizontally**, where the case is analysed and discussed in all its aspects; (2) **vertically**, where specific aspects or mechanisms of social innovation, particularly evident in the case, are focused and deepened; (3) **comparatively** by combining findings along the two previous directions in a methodologically comprehensive manner. The multiple criteria adopted in the selection of the cases (cf. Figure 2) gave leeway to compare the emerging evidences, and to evaluate them by reconnecting the cases to their similarities and differences (Terstriep et. al., 2015).

6. Conclusion

Over the last decades, much work has done to advance understanding social innovation and to evaluate its results, i.e. social value. Most scholars focused on parts of the social innovation process, but did not grasp the whole picture of the process. The concept of the innovation journey is a good starting point to explain social innovation in a long-term perspective. Elaborated as a grounded model, it was developed to understand the changes of innovative ideas, outcomes, actors, transactions and contexts over time, using long-term field studies to analyse these concepts. The possibilities to do long-term field studies is not widespread due to the great effort to observe cases over a long period. To conduct such studies, researchers need financial support for at least five to six years of observation plus additional time for analysis. The majority of research projects, however, is only funded on a three-year basis or less. That is why the methodology of SIBs was designed with the aim to close the gap of missing methods in analysing the social innovation process in a retro-perspective. SIBs provide a divers methodological solution including desk research, narrative interviews, semi-structured interviews, egocentric network analysis and triangulation as a step-by-step approach. It contributes to the social innovation research while overcoming conscious challenges of other kinds of methods. SIBs address the problem of (1) selecting critical cases, (2) mobilising interviews, (3) quantity and quality of information, (4) selectiveness, and (5) reinforcing confidence. It grasps all the aspect of the innovation process, draw a holistic view of the biography of an innovation and is therefore a good

method to collect data for further analyses in the world of social innovation research.

References

- Avelino, F., Wittmayer, J., Haxeltine, A., Kemp, R., O’Riordan, T., Weaver, P., Loorbach, D. and Rotmans, J. (2014). Game Changers and Transformative Social Innovation. *The Case of the Economic Crisis and the New Economy*, 1-24.
- Butzin, A. (2013). *Knowledge dynamics in innovation biographies: a methodological and spatial perspective*. Marburg, Univ., Diss., 2014.
- Butzin, A. and B. Widmaier (2016). Exploring territorial knowledge dynamics through innovation biographies. *Regional Studies* 50(2), 220-232.
- Cajaiba-Santana, G. (2014). Social innovation: Moving the field forward. A conceptual framework. *Technological Forecasting and Social Change*, 82, 42-51.
- Corti, L., Witzel, A., & Bishop, L. (2005). *On the potentials and problems of secondary analysis. An introduction to the FQS special issue on secondary analysis of qualitative data*. Paper presented at the Forum Qualitative Sozialforschung/Forum: Qualitative Social Research.
- Creswell, J.W. (2013). *Qualitative Inquiry & Research Design. Choosing Among Five Approaches*. Third Edition. Thousand Oaks, CA: Sage.
- Dosi, G. (1982). Technological paradigms and technological trajectories: A suggested interpretation of the determinants and directions of technical change. *Research Policy*, 11(3): 147–162.
- Edmondson, A. C., and S. E. McManus (2007). Methodological Fit in Management Field Research. *Academy of Management Review*, 32(4), 1155-1179.
- Flick, U. (2011). *Triangulation. Eine Einführung*. Wiesbaden: Springer.
- Jack, E.P. and A.S. Raturi (2006). Lessons learned from methodological triangulation in management research. *Management Research News*, 29(6), 345-357.
- Jakob, A. (2001). *On the Triangulation of Quantitative and Qualitative Data in Typological Social Research: Reflections on a Typology of Conceptualizing 'Uncertainty' in the Context of Employment Biographies*, Forum: Qualitative Social Research, 2 (1), 1-29.
- Homburg, C., Klarmann, M., Reimann, O. and Schilke, O. (2012). What Drives Key Informant Accuracy. *Journal of Marketing Research*, 49(4), 594-608.
- Howaldt, J. and Schwarz, M. (2010). Social Innovation: Concepts, Research Fields and International Trends. In K. Henning & F. Hees (Eds.), *Studies for innovation in a modern working environment* (Vol. 5): IMA/ZLW.
- Konstantatos, H., Siatitsa, H. and Vaiou, D. (2013). Qualitative approaches for the study of socially innovative initiatives. In F. Moolaert, D. MacCallum, A. Mehmood and A. Hamdouch (Ed.), *The International Handbook on Social Innovation Collective Action, Social Learning and Transdisciplinary Research* (pp.274-284). Cheltenham, UK & Northampton, MA, USA: Edward Elgar Publishing Limited & Edward Elgar Publishing, Inc. (Reprinted from: 2014).

- Mulgan, G. (2012). The Theoretical Foundation of Social Innovation. In: Nicholls, Alex & Murdock, Alex (2012): *The Nature of Social Innovation*. In: Nicholls, A.; Murdock, A. (Eds.), *Social Innovation. Blurring Boundaries to Reconfigure Markets*. Houndmills: Palgrave Macmillan, 33-65.
- Mulgan, G. (2006). The Process of Social Innovation. *innovations: Technology, Governance, Globalization*, 1(2), 145-162.
- Murray, R., Caulier-Grice, J. and Mulgan, G. (2010). *The Open Book of Social Innovation*. London: Young Foundation.
- Nelson, Richard R. and Winter, Sidney G. (2002): Evolutionary Theorizing in Economics. *Journal of Economic Perspectives*, 16(2): 23–46.
- Patton, M. (2002). *Qualitative Research and Evaluation Methods*. 3rd edition. Thousand Oaks, CA: Sage.
- Pelka, B., and Terstriep, J. (2016). Mapping Social Innovation Maps: The State of Research Practice across Europe. *European Public & Social Innovation Review*, 1(1), 3-16.
- Phillips, F. (2011). The state of technological and social change: Impressions. *Technological Forecasting and Social Change*, 78(6), 1072-1078.
- Schmitt, J. (2014). *Social Innovation for Business Success: Shared Value in the Apparel Industry*. Wiesbaden: Springer Gabler.
- Short, J. C., Ketchen Jr D. J., Shook, C. L., and Ireland, R. D. (2010). The concept of ‘opportunity’ in entrepreneurship research: Past accomplishments and future challenges. *Journal of Management*, 36(1), 40-65.
- Söhnchen, F. (2009). Common Method Variance und Single Source Bias. In Albers, S. et al. (Eds.), *Methodik der empirischen Forschung*, 3. Auflage, Wiesbaden: Gabler, 137-153.
- Strauss, A.L. and Corbin, J.M. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Thousands Oaks, CA: Sage Publications.
- Terstriep, J. (ed.) (2016). *Boosting SI's Social and Economic Impact*. Gelsenkirchen: Institute for Work and Technology.
- Terstriep, J. and M. Kleverbeck (2016). Tausche Bildung für Wohnen - Towards a Prevention Chain to fight Children’s Social, Cultural & Economic Discrimination. *SIMPACT Social Innovation Biographies*, 2016 (10). Gelsenkirchen: Institute for Work and Technology.
- Terstriep, J., Kleverbeck, M., Deserti, A. and F. Rizzo (2015). *Comparative Report on Social Innovation across Europe*. Deliverable D3.2 of the project «Boosting the Impact of SI in Europe through Economic Underpinnings» (SIMPACT), European Commission – 7th Framework Programme, Brussels: European Commission, DG Research & Innovation.
- Van de Ven, A. H. (2017). The innovation journey: you can't control it, but you can learn to maneuver it. *Innovation*, 19(1), 39-42.

- Van de Ven, A. H., Polley, D. E., Garud, R., and Venkataraman, S. (1999). *The innovation journey*. New York: Oxford University Press, Inc.
- Wassermann, S. and K. Faust (1994). *Social Network Analysis. Methods and Applications*. Cambridge: Cambridge University Press.
- Wengraf, T. (2001). *Qualitative Research Interviewing. Biographic Narrative and Semi-Structured Methods*. London: Sage Publishing.
- Wengraf, T. (2002). Uncovering the general from within the particular. From contingencies to typologies in the understanding of cases. In Chamberlayne, P., Bornat, J. & Wengraf, T. (eds), *The Turn to Biographical Methods in Social Science: Comparative Issues and Examples*, London, New York: Routledge, 141-164.
- Yin, R. K. (2014). *Case Study Research: Design and Methods*. 5th edition, London: Sage Publications.
- Zapf, W. (1989). Über soziale Innovationen. *Soziale Welt*, 40(H. 1/2), 170-183.