CRESSI Working papers

The CRESSI project explores the economic underpinnings of social innovation with a particular focus on how policy and practice can enhance the lives of the most marginalized and disempowered citizens in society.

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D3.5: Toolkit (Methodology)

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Toolkit (Methodology)

CRESSI Deliverable D3.5

By Nadia von Jacobi, Enrica Chiappero-Martinetti, Toa Giroletti, Lara Maestripieri and Flavio Ceravolo

1. Introduction

This toolkit follows up to the conceptual framework developed by the CRESSI - "Creating Economic Space for Social Innovation" – Project, in which three different theoretical frameworks are combined in order to better understand how social innovation processes can contribute to the reduction of marginalization of certain groups of people.2

The aim of this deliverable is an overview of methodological issues that need to be addressed in order to frame the complex analysis in which marginalization is an object of study and in which social innovation processes - facilitated or constrained by existing social forces - possibly reshape and reshuffle power structures.

The text does not explicitly deal with impact measurement, as this is the topic of a different (forthcoming) deliverable. Our focus is on primary data collection, as the CRESSI project explicitly foresees the analysis of on-going social innovation cases, for which data will be collected on purpose.

The structure of this document is as follows:

Section 2 resumes the rationale of the CRESSI project. It briefly summarizes the conceptual framework by highlighting the contributions of the three different theoretical strands that are being considered. It then quickly dwells into methodological challenges that such a complex framework implies and anticipates choices that are particularly relevant for the CRESSI project: the operationalization of the Capability Approach, selection of relevant social forces, the declination of power dimensions into the reality of a particular social innovation process. In outlining a possible path to put the framework into practice, the toolkit emphasizes the need to actively involve the voices of social innovation actors, the relevance of innovative primary data collection and the combination of qualitative and quantitative approaches.

Section 3 enters into details of the main phenomena that need to be measured: (1) marginalization and (2) social innovation. A possible approach to measuring agency or the lack of it - and the resulting disempowerment - is proposed, which bridges Amartya Sen's Capability Approach with the CRESSI internally developed NACEMP model that expands a theoretical model of Thomas Mann. In approaching the measurement of social innovation, emphasis is put on the methodological choice of combining different types of information into a single metric (so-called Composite Approach) and to the alternative option of overviewing selected lists of indicators (Dashboard Approach).

1 University of Pavia
2 This CRESSI deliverable (D3.5) was submitted to the EC on 30 July 2015. It is also available as a working paper (no. 15/2015) on the CRESSI website at: http://www.sbs.ox.ac.uk/ideas-impact/cressi/cressi-publications. Further information about the CRESSI Project is also available on this CRESSI website.
Section 4 addresses the methodological challenges we face in capturing and measuring relevant social forces, which according to Beckert include networks, cognitive frames and institutions.

Section 5 provides a glossary of technical terms.

Section 6 groups references according to the main themes presented in the text.

2. Rationale

2.1 Social Innovation and Marginalization in the CRESSI framework

Sen, capabilities and marginalization:

The CRESSI project asks us to investigate the role of social innovation for the reduction of marginalization in societies. This implies taking a stand on what marginalization is and, further, which role social innovation can play for social change and its direction. In particular, it asks us to understand how social innovation and policies that support it can contribute to reducing marginalization of individuals.

Marginalization can be interpreted as the result of a social process through which personal traits are transformed into potential factors of disadvantage. The idea behind this distinction being that inequality in personal traits does not automatically imply socio-economic inequality, unless a particular social process is present. The potential disadvantage may be confirmed and therefore empirically detectable in the form of socio-economic inequalities. Yet, individual action - in combination with other social factors - might compensate the risk of potential disadvantage, and therefore lead to a condition in which the disadvantage is not empirically confirmed. So, marginalization is a complex outcome of personal traits, contextual factors, agency and the social process surrounding us.

We consider marginalized individuals to be those that are located at the bottom of the distribution in a plurality of dimensions (e.g. in health condition, educational achievements, employment security, social relations, etc...). Potential factors of marginalization are individual or contextual characteristics that both tend to be associated to a disadvantage (ex-ante criterion) and that in empirical investigations of the marginalized are found to be common (ex-post criterion).

Within CRESSI, the Capability Approach can represent a reference point for the definition of marginalization and for a better understanding of the causes that can generate it. It can also allow us to evaluate the impact of social innovation processes and how they can positively affect the well-being generation process. From this point of view, marginalization results as a sort of lack of capabilities of some individuals, especially in comparison to prevalent capabilities in the society surrounding them.

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3 This section draws on "Relating Sen to CRESSI" by Chiappero-Martinetti and von Jacobi (2014) CRESSI internal note.

4 Note that this definition of marginalization focusses on human individuals, while other foci are possible: for example, social practices may be marginalized, although the individuals interested in them may not necessarily be marginalized in socio-economic terms.
Beckert and his 'social forces':

The second theoretical milestone of the CRESSI project (and of this methodological toolkit) refers to Jens Beckert: to better identify the process, drivers and the 'ecosystem' within which social innovation comes to life, the CRESSI project investigates the role of social structures, namely institutions, networks and cognitive frames. These have often been treated by the institutionalist and sociological literature, yet, by choosing to refer to Beckert, we embrace a stand in which all three social structure are being given a primary role *ex ante*. On the contrary, Beckert's analysis and summary of diverse strands of literature shows that different social structures are likely to be at play contemporaneously, which means that their interconnections need to be taken seriously. Social structures are expected to exercise their influences simultaneously in Beckert's framework, and therefore to be studied jointly. Beckert expects to understand *market dynamics* by investigating the interrelations (whether conflicting or complementary) between different social structures. The economic sociology framework helps understanding how the three social forces contribute to economic outcomes including the stratification of opportunities. Beckert's hypotheses about *dynamics* seem to be relevant in order to identify the emergence of spaces (opportunities) for social innovation processes.

Mann's account of social power resources:

The third theoretical strand of CRESSI starts from a detailed observation of human societies' history. It shows that change can often be accounted for by shifts in social power. Mann's framework therefore provides our main reference for the study of power but also helps understanding how social change and shifts in power structure are profoundly intertwined. By conceptualizing social power as the expansion of control over the environment (*collective power*), Mann's and Heiskala's framework contribute to our understanding why social innovations happen and what the ultimate driver of social progress might be. The expansion of Mann's framework by Heiskala (2014) adapts the selection of dimensions wherein social power can be conceived to the analytical needs of CRESSI. In Heiskala's NACEMP model, social power is therefore conceived in the following dimensions:

- Natural: including the environment and physical abilities
- Artefactual: including current technological achievements and manufacts.
- Cultural: comprising ideologies, beliefs, education and norms.
- Economic: including production and specialization.
- Political: comprising territorial centralized regulation.

Through the NACEMP model we can categorize different relevant dimensions of social power within society and refer to individual marginalization as a personal condition of lack of social power in one or more of these dimensions. At the social level, the NACEMP model can provide a guideline for the investigation of power structures before, during and after the

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5 The analysis of Beckert in this document is mainly based on Beckert (2010). For further details, see Nicholls and Ziegler in D.1.1 of the CRESSI project.

6 The understanding of Mann's and Heiskala's models are based on Heiskala's project internal writings (2014a and 2014b) and on Hämäläinen and Heiskala (2007).
social innovation process. It also provides a framework for the type of change that the innovation process is provoking.

**An integrated framework:**

If we accept that "higher levels typically influence lower levels in hierarchies" (Luke, 2004) the links between Beckert's and Sen's framework are likely to provide arguments how this happens. "Each of the three structuring forces contributes to the social organization of market exchange by shaping opportunities and constraints of agents as well as perceptions of legitimacy and illegitimacy." (Beckert, 2010:609, emphasis added). Within the capability approach a similar view prevails, namely that contextual factors can influence decision-making through their effect on reasons and resources (Longshore Smith and Seward, 2009). Each person faces and interacts with an environment made up of “material and non material circumstances that shape people's opportunity sets, and (...) circumstances that influence the choices that people make” (Robeyns 2007: 99; emphasis added). Summarizing, the CRESSI project puts emphasis on individual and structural factors that, in joint and complex combination, are part of a process in which opportunities are unequally distributed (power structures), not equally used (conversion ability) and reshuffled (emergence of new spaces), possibly through a social innovation process. Figure 1 below summarizes the project's conceptual framework.

**Figure 1:** Social forces as conversion factors for human capabilities

Source: CRESSI Project based on Robeyns 2005

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7 Social power structures may of course themselves enter as influencing factors (contextual conversion factors, see Chiappero-Martinetti and von Jacobi, 2014).
2.2 Methodological Challenges

The theoretical framework just outlined is intrinsically complex as it tries to trace the different factors that - at different levels - may play a role for social innovation processes and its impact in terms of social change and the reduction of marginalization. Transforming this conceptual complexity into a feasible empirical methodology poses a series of different challenges that shall be anticipated in this section. We start with the Capability Approach, which provides the evaluative space* from which we start from for the CRESSI framework. The selection of the evaluative space has a good deal of cutting power on its own, both because of what it includes as potentially valuable and because of what it excludes. For measurement approaches, it also determines which information we might want to include or exclude. The remainder of this document deals with detailed methodological proposals.

Selecting Capabilities:

According to Amartya Sen and his Capability Approach (1985, 1987, 1992, 1999, 2009) the scope of development (and of social progress or change) is not the provision of a greater amount of resources, but the availability of a greater set of opportunities from which individuals can select and chose the life they value themselves. Sen's concept of development is rooted in a notion of substantive freedom that represents the ultimate scope of progress and change. In order to distinguish between resources and freedom (or the capability set), Sen conceptualizes well-being as a process where resources are transformed, or converted into, first, opportunities, and then functionings, which are the observable outcome of the capability selection process of the individual (Sen, 1985). In empirical investigations, other authors refer to this conversion process as to some sort of capability production function in order to estimate the ability to convert of different people in different contexts (Chiappero and Salardi, 2008; Binder and Broekel, 2011).

Capabilities include, among others, aspects such as being educated, being healthy, enjoying social life without being ashamed, etc. As they are meant to reflect personal choices and values, the universal set of capabilities of humanity is potentially infinite, as subjective preferences may be. Therefore, any empirical study aimed at applying the Capability Approach, needs to consider how to select capabilities (and functionings) that are of empirical interest for the study. A series of different methodological approaches may be chosen in order to select those capabilities that are relevant for the analysis. They may be collected through subjective evaluations (reflecting what people value) or they may be informed by policy or development agendas, which sometimes provide guidance by specifying thresholds above which a life in dignity starts (see for example the Millennium Development Goals, the Human Rights Declaration or more specific national poverty or development plans).

Once selected the capabilities of interest, a subsequent methodological challenge is how to measure them: one should always keep in mind the conceptual distinction between capabilities, which represent the real opportunity/freedom aspect (being free and able to be or to do something) and functionings, which refer to achieved beings or doings. Of course, while there is a need to conceptually distinguish capabilities from functionings, it should be quite clear that they are inter-related and reinforcing. Capabilities lead to functionings which in turn may create more capabilities and functionings (Chiappero and von Jacobi, 2014).

Variable Mapping:
Beyond defining which capabilities are actually of importance for the empirical study, a whole set of other variables needs to be recognized, selected and located within the capability production function. Figure 2 below synthetically describes the capability production function: as can be seen the framework distinguishes between endowments*, conversion factors*, capability set* and functionings*. Agency* assumes the role of a crucial driver that affects and combines with all other elements in determining the final outcomes that an individual achieves. Agency assumes particularly relevant roles in two phases of the capability production process: (i) conversion of resources into opportunity (ii) choice among possible opportunities.

**Figure 2:** The capability approach, a diagrammatic representation

![Diagram](source: Chiappero and Venkatapuram 2014)

In Figure 3 below, the same framework is represented, but the graphical representation helps at setting a multi-level stage: one in which individuals are contemporaneously exposed to private resources (e.g. family income or assets, education of parents) and to public - tangible and intangible - resources (such as transport infrastructure, quality of public schooling or the absence of civil conflict) which may be provided at the local, national, regional or global level. The same logic applies to conversion factors which can be located at the micro level (taking on personal traits) or at the meso/macro level (taking on structural features of the context in which the individual is embedded).
The process of variable mapping consists in an exercise of placing the information that is available within this conceptual grid of endowments - conversion factors - capabilities - functionings which however also cross a grid made up of different layers of reality, such as for example individual - household - neighbourhood - municipality - country. Placing the information within this grid permits a better understanding of which information is available/lacking and how different types of information can be expected to be interacting.

**Relevant Social Forces:**

In terms of Beckert's framework, the methodological challenge is threefold:

(i) first of all, in order to capitalize the potential of the framework it is important to recognize which social forces are actually relevant for the social innovation process investigated. The social reality is made of an almost infinite number of structural factors, including formal institutions such as rules and laws or organizational practices, but also comprising informal institutions, which may rely on traditions, recognized social behaviour, etiquettes, etc. Networks on the other hand may be infinitely overlapping, with some individuals belonging to different networks, which can develop along friendship ties, professional connections, consumption and socialization behaviour or preferences, etc. Different cognitive frames can further coexist, on one hand because they may comprise or derive from value-systems such as religion, culture, history and because they may be significantly mediated by perceptions, which however may be profoundly different between different groups. Think about the perception of corruption among national politicians, for example. Potentially, the list of institutions, networks and of cognitive frames an individual is exposed to is infinite. Therefore, a first methodological challenge consists in the selection of those social forces that are most relevant for the empirical analysis of the particular social innovation process.

(ii) the multitude of social forces may be found at different levels of empirical observation, or: they may have very different units of analysis. For example, a certain political attitude deriving from the French *Illuminism* may be prevalent in most of Central Europe, whereas the burden of bureaucratic procedures may significantly vary between different countries within Europe, and the ability of small entrepreneurs to gather together to circumvent potential production obstacles may be locally determined and vary drastically within the same country. The perception of corruption among the political elite may be profoundly different between individuals with different educational background, professional life experience and media
exposure. Recognizing the appropriate level of measurement of social forces is an empirical challenge.

(iii) once given that a multitude of different social forces co-exist and co-shape the opportunities of individuals, another methodological challenge consists in the ability to separate out the effect of one social force from the other: structural factors such as those mentioned are highly interconnected (von Jacobi, 2015) as if they were a dense web that actually shapes the "context" in which individuals live. Recognizing how different social forces connect to each other, however, is a crucial element of the empirical application of Beckert's framework in which the change in the connection between social forces represents the moment in which new spaces for opportunities open up.

Declining Power Dimensions in Reality:

In order to transfer the CRESSI conceptual framework into a methodology for empirical analysis, an additional challenge is to specify what the power dimensions of the NACEMP model mean in reality. Given that the six types of power comprised in the model (natural - artefactual - cultural - economic - military/security-related - political) provide the conceptual space within which we may want to observe empowerment, or its absence, the exact empirical declination of the six dimensions has important implications for the way in which we will be able to measure (i) marginalization, where it is connected to the extreme absence of empowerment within society; (ii) the type of social change induced through social innovation, where this is intended as one that affects or alters power structures. In fact, social change can often be accounted for by shifts in social power, but how these can concretely be observed in empirical case studies depends on the connotations that we give to the six dimensions proposed in the NACEMP model. These are conceptually broad on purpose in order to theoretically accommodate very different societal phenomena, through time and space. A methodological quest is the identification of how to make sure that the correct interpretations of these dimensions are applied in the specific empirical analysis.

Dynamics

As the term "social innovation" directly implies on-going dynamics, questions of timing may also be regarded as relevant when empirically studying the phenomenon: when exactly does a social innovation start? From when onwards is it likely to observe its effects? As the previous paragraphs have highlighted, social innovation processes are complex and multi-level-embedded objects of study, with each interconnection being likely to display different time-profiles in terms of manifestation of their own existence and of their direct or indirect effects. Dynamic aspects may therefore pose additional challenges throughout the process of studying social innovation empirically.
2.3. Putting the Framework into Praxis

This section focuses on methodological choices required in order to measure social innovation. In describing those choices we will in particular be referring to the conceptual framework adopted in CRESSI, in order to facilitate whomsoever wanted to apply it empirically to particular social innovation case studies.

2.3.1. Primary versus Secondary Analysis

When we set out for any empirical analysis, we need to ask ourselves first which type of information we would like to use. Are we inclined to use data that have already been collected by somebody else - also known as secondary data, or are we able and willing to collect own data, or primary data, for the analysis? Both types of data have advantages and disadvantages. Speaking about secondary, there are many types of secondary data, different in terms of source of data collected (either qualitative or quantitative, such as surveys, census, documents, etc) and in terms of the type of collector, who can either be an institution or a private organisation. For studies about social innovation, important source of secondary data are databases like Eurostat or the OECD database, collected by institutions (in this case by national statistical offices and an international organization, respectively) and have as primary objective the availability of comparable indicators across countries.

When secondary data have been collected by institutions (e.g. statistical offices or international organizations), they tend to have greater reach through higher number of observations and greater geographical coverage. Often, this goes hand in hand with more solid statistical reliability, when the data collection process has been managed according to criteria of statistical representativeness. These features make secondary data typically more adequate for comparative studies, in which the same object of interest and its driving factors are analysed in different settings. The drawback of secondary data, however, is tightly linked to exactly this type of advantage: being designed in order to be comparable, secondary data often lack the details that more emerging topics, such as social innovation, require. A further issue is the unit of analysis: sometimes secondary data on a very specific topic exist, take access to credit, for example, but the unit of analysis that has been chosen does not correspond to the one of interest for social innovation analysis. We might have datasets collected at the bank level but miss out information on behalf of deposit owners, or of those who did not have access to a bank account.

Primary data are an adequate tool for filling informational gaps not covered by currently existing secondary data. The scope of primary data analysis might be the one to include a new unit of analysis, or to cover particular thematic areas currently neglected, or to experiment with particular methods that allow for the inclusion of opinions, mind frames or other - more subjective - types of information. The main drawback of primary data collection is usually its cost in terms of (i) monetary resources and of (i) human skills that are necessary in order to implement it properly: designing the appropriate sample, selecting the appropriate data collection tool (interviews vs. questionnaire, personal vs. web-based techniques) requires capacities that are not always available. Collecting data, further, is only the first time-intensive investment that is necessary: transcribing or codifying and data cleaning are equally relevant phases of data management that need to be sustained. These phases often require different skills than the previous one of data collection and the subsequent one of data analysis. Primary data collection, therefore, requires some sort of abundance of resources,
either monetary or in terms of skills and capacities available. Further, primary data collections may rise issues related to the validity and reliability of the analysis, which in particular can be difficult to verify or replicate; its sample design or low response rates can strongly affect the statistical significance of the sample; finally the possibility of making comparisons over time or across countries is limited. Nevertheless the possibility to tailor secondary data in order to address very specific research questions is reduced, so in order to advance our knowledge on social innovation processes - and to possibly include the voice of marginalized people - primary data collection represents a viable option (see also next sections).

In what follows we focus on primary data collection as previous research work (see FP7/EU-project TEPSIE for more details) has already investigated the role that secondary data can play for improving our understanding of social innovation processes. TEPSIE outcomes show, that social innovation is one of those emerging fields where primary data is severely necessary in order to advance our knowledge. In fact, especially when relying on qualitative methods (i.e. in-depth interviews), such new knowledge may be recorded. Further, it is possible to more effectively include the voice of beneficiaries of the social innovation process themselves: these are often those who are also at the margins of the public debates or simply don’t have enough competencies or capital to have their voices heard (see next section).

2.3.2. Including the Voice of Beneficiaries and Marginalized

A very important reason for which primary data collection might be preferred to secondary data is directly linked to the intrinsic scope of social innovation processes: as they tend to address empowerment* issues, drawing on the voice of beneficiaries as an informational source is fundamental in order to capture their effective impact (see BOX1 below).
BOX 1: A Critical Theorist Perspective

The increased interest from policy makers, impact investors, and social purpose organizations in accounting for the impacts of social innovation has driven the development of a range of different evaluative methods. Most of these methods are grounded within the frameworks of conventional accounting, however. A critical position challenges the positivistic assumptions of mainstream accounting practices by suggesting that a narrow focus on linear models of impact creation misses significant issues of power relations and institutional settings. Such a critical approach positions social innovation impact measurement as a more interpretive phenomenon, that has the potential to be emancipatory in its processes as well as outcomes.

Accounting conventions and practices serve to enact and entrench power relations across interrelated stakeholder groups, typically to express the interests of those actors that already have resources, control and influence. Thus, accounting systems and processes are never neutral and, from a social innovation perspective, a key task, therefore, becomes the reimagining of accounting as an emancipatory rather than repressive system. In practice, this requires developing methodologies that give precedence to the voice of the most marginalized or vulnerable stakeholders in an accounting system so that the consequent evaluative space allows their materiality and performance judgments to have the most weight.

It is useful to take three theories of accounting and apply them to the different approaches to impact measurement. The first takes a positivist view of accounting: it assumes that accounting data is and should be a representation of financial realities (Whittington, 1986). The second sees accounting from a Critical Theorist perspective suggesting that accounting processes are essentially about the enactment of power (Chua, 1986; Power and Laughlin, 1996; see also Lukes, 1974). The key issue is who determines what data are captured and reported and for what purpose – since it is well understood that what is to be measured attracts more management attention than what is not. The third theory reconstructs accounting as, ultimately, an interpretive activity – one that provides shared symbolic mediators (terms, codes, conventions) and institutional spaces (practices, formal occasions) for a discussion among interested parties about the nature and extent of value creation, and how best to capture it (Ryan et al, 1992; Gambling et al, 1993). These three approaches represent a spectrum of conceptualizations of accounting and reporting from being a scientific process to representing a set of framing principles for control and action.

[Adapted from Nicholls (2015) in D3.1, CRESSI8; emphasis added]

Apart from secondary data to be unlikely to having collected the needed information - precisely among the targeted marginalized beneficiaries - of a particular social innovation process, BOX 1 illustrates how the collection of primary data can also deliver a positive externality in granting a new type of inclusion for marginalized people and social innovators themselves. Instead of simply re-applying metrics and impact frameworks developed in realities that are external to the social innovation process, the scope of primary data collection can succeed - to various degrees - in shaping the entire evaluative space of social innovation impacts through the opinions and perceptions of the people directly involved.

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8 CRESSI Project Deliverable D3.1 Synthetic Grid was submitted to the EC on 27 April 2015. This report will also be published on the CRESSI website as a working document, later in 205. Link: http://www.sbs.ox.ac.uk/ideas-impact/cressi/cressi-publications
2.3.3. Combining Qualitative and Quantitative Methods

In social sciences, there are two main ways of obtaining primary data from participants of a social innovation process: either by interrogating them or by observing them in their everyday practice. Observation requires a greater investment in terms of resources and time compared to other primary data collection methods, so directly interrogating a social innovation actor about processes and outcomes is often the optimal choice, both for a direct feedback on the social innovation process and for favouring their empowerment and inclusion. The act of interrogating varies strongly between methodological approaches: from a highly standardized and directive instrument such as the questionnaire to a soft and extremely non-directive one as in the in-depth interview (with semi-structured interviews locating in the middle of those extremes). In the first case, the act of interrogation is completely in the hands of the interviewer, which usually sets up the theme, the questions and quite often provides the possible answers to be given by the interviewees (with exceptions, e.g. open questions: see the following paragraph). On the opposite side, in the context of in-depth interviews only the topic of the conversation is decided before going to the field, while the dialogical exchange is co-constructed in the interaction between the interviewer and the interviewee through the use of a guideline for the interview. In the case of the semi-structured interview, the grade of directivity is in the middle between the two extremes, since the interviewer has usually a list of set-up questions to which the interviewee has the ability to answer freely (Bichi, 2002).

What is more important to stress, however, is the different shape that the information assumes through the collection process: in the case of a questionnaire, the information is usually codified and treated numerically in order to investigate relevant hypotheses and relations between variables. In this case, social scientists usually speak of quantitative methods, which are inspired directly from the deductive approach. In the case of qualitative methods on the contrary, data are usually built on an inductive scientific process, taking on the form of texts that have to be interpreted by the researcher. In this second case, the generalisation of the information assumes a typological character: it is not based on a statistical representativeness of the population of study (as it occurs in quantitative methods), but on the relevant heuristic power that the ideal-types produced in the analysis process have on the comprehension of the phenomenon under investigation.

The choice between qualitative and quantitative methods usually relies on the research question and the context of the phenomenon under study. In the context of social innovation, the advantage of qualitative methods is the possibility to open up new research areas that have not been already investigated in previous research – as the inductive process is more likely to produce scientific knowledge emerging from the field rather than descending from ex-ante hypotheses taken from the literature. A second advantage is also the possibility to increase the empowerment of the interviewees engaged in the process of the research, since they can have an active role in setting up a narration about their own experience in the social innovation process. Nevertheless, qualitative methods have the disadvantage of requiring a stronger investment in time and personnel involved in the process of data collection and analysis. Quantitative methods on the contrary usually allow including more interviewees in the data collection process and providing the possibility to test a specific relation between variables, drawn from the literature or previous investigations.

So in collecting primary data, different approaches may be used, which allow the respondents to shape the information to a varying degree. A quite effective strategy is to combine the two
methodological approaches in order to ensure the advantages of both methods: in a first explorative orientation, a series of interviews with social innovators can favour a deeper understanding of the social innovation process, with the aim of thick description (Geertz, 1973) and deeply understanding the conditions under which a process as such is happening and can become a best practice. Secondly, a subsequent step based on a questionnaire can help researchers get a broader and statistically more significant picture of what are the mechanisms behind the phenomenon of social innovation.

Quantitative and qualitative variables in a questionnaire:

Apart from distinguishing qualitative and quantitative data collection methods, we can further qualify the type of information we collect through a questionnaire. Quantitative information typically implies any sort of information that has a numerical significance [e.g.: expenditures, revenues, number of employees, number of volunteering hours], while qualitative information typically refers to what cannot be expressed in numbers [e.g. religion, political affiliation, gender or ethnicity]. Often, qualitative information, however, has an ordinal character, implying that the range of possible answers can actually be put into a clear and non-arbitrary order [e.g. poor - fair - good - excellent]. In this case, the order is clear but the exact distance between "poor" and "fair" may be arbitrary. We therefore distinguish between information that has ordinal and cardinal character. Cardinality implies that distances between the ordinal options are not arbitrary and that it is therefore possible to e.g. say "14 years of schooling is double the amount of 7 years of schooling". Cardinality is a necessary condition for information to be of pure quantitative type.

Keeping in mind which type of information is the object of interest for the data collection (qualitative, quantitative, ordinal, cardinal) drives most of the choices in the data collection design.

Open and closed questioning:

Once opted for a questionnaire, another decision that drives the data collection design has to do with the amount and type of reply options provided: possibilities range from not providing any particular answer option ex-ante at all, also known as an open question, in which the respondent may provide a word or an entire discourse on a specific interrogation, to a complete list of answer options, also known as closed or structured question, in which the respondent can only chose (one or more) among the previously designed options. Clearly, the degree of openness of a question determines how innovative the collected information may be: where only closed questions are used, we may obtain an unexpected distribution of results/answers, but we will not be able to be surprised by ideas and facts we have not previously thought about. Therefore, open questioning plays a crucial role every time the research scope is particularly explorative, and whenever we are digging into details of cases for which we are not experts ourselves.

Structured questions, on the other hand, are more likely to be used whenever we feel more confident about the underlying facts or theories and where the main aspect of interest is to observe the distribution of answers. Of course intermediate forms are possible: for example, a structured question may include an open reply option (usually, the "other" option) and therefore allow for the collection of additional facts and options, without leaving complete freedom in the reply.
Open and closed questions have rather different requirements in terms of data analysis: for closed questions, the most appropriate tools for analysis usually come from the realm of descriptive statistics: in fact, if closed questioning is chosen, even qualitative information, such as "political affiliation" may be treated as if it were quantitative, through the process of coding. Open questions, on the other hand, are much more appropriately analyzed through qualitative analysis, which also implies some coding - the attribution of some representative label - but in this case the code assigned does not take on the form of a number, but of a concept: so for example, exclusion from the labour market may be a code that is assigned to all sort of parts of discourses in which the respondent refers to different types of problems or aspects that relate to her/him/others not benefitting from an appropriate inclusion into the labour market.

Choosing and mixing methods:

Each type of information and of data collection method used presents advantages and disadvantages: where the "cost" incurred in completely closed questions manifests in the inability of respondents to freely express their minds, their benefit lies in the cost-effective ex-ante coding and the clear comparability of replies. Open questions, which are more inclusive and "democratic" in some way, may lead to very costly ex-post coding, which may also suffer from incomplete comparability, as the narratives of different persons may not always share the same semiotics and meanings, even when discussing the same topic.

BOX 2: a possible combination of different tools

An interesting way to combine open and closed, explorative and confirmatory analysis is a multi-step approach in which a first group of respondents, are interrogated through qualitative interviews and the results of their replies are used to design semi-structured reply options for a broader audience. Social innovators, for example, may provide details and circumstantial elements of a social innovation, which are hardly accessible to an outsider. Through interviews, it is likely that the data collection may produce innovative elements of analysis. The narrative of a social innovator that highlights difficulties and successes of her on-going work may provide a series of interesting points for in-depth analysis: for example, which type of current institutions play a constraining or facilitating role for the social innovation process, or which types of cognitive frames the social innovation process is trying to reinforce or change. Once codified ex-post, such type of information may provide a valuable and innovative "menu of replies" of semi-structured or completely structured questions, whose distribution may therefore be tested later on through quantitative analysis. Such a method can either be conceived as a pilot study or be used directly in a data collection process designed in multiple steps. Multiple steps in data collection are particularly adequate when information is collected at more than one level: in multi-level analyses each level requires a separate data collection strategy including an own survey sampling and questionnaire.

[See WP7, CRESSI in the project text for an example]
3. Social innovation for the marginalized

In line with the complex theoretical framework considered, the ultimate scope of the social innovation process lies in the expansion of opportunities, or of the Capability Set if we adopt Amartya Sen's framing. Within CRESSI, particular attention is focussed on the opportunities of the marginalised.

3.1. Marginalization

Marginalized people or marginalized groups are usually defined as those who are at the margins of the social, economic, political arena and in many cases in all these spheres, as disadvantages habitually tend to cumulate (Chiappero-Martinetti and von Jacobi, 2014). This implies that marginalized people may suffer from a low economic status or find themselves implementing practices that are not accepted/widespread within their society. According to Kanbur (2007), marginalization is a relational statement that needs to be defined in relation to some other group or category in the society or with regards to an average standard. However, it is still an open issue on how to identify the comparison group and what should be the prevailing characteristics or identities to be considered for identifying the marginalized groups.

The rough working definition of marginalization adopted in the CRESSI project sees it as being "a result of social process through which personal traits are transformed into potential factors of disadvantage." Empirically, this means that the potential disadvantage may be confirmed and only then empirically detectable in the form of inequalities. Yet, it also implies that individual action - in combination with other social factors - might compensate or contrast the potential disadvantage, and therefore lead to a condition in which the disadvantage itself is not empirically confirmed (Chiappero-Martinetti and von Jacobi, 2014).10

In principle, marginalized groups could therefore either be pre-defined ex-ante, on the basis of some assumption or presumption about the characteristics that make people more exposed to the risk of marginalization or ex-post, identifying marginalized groups through empirical findings, or through both approaches, which would allow testing and confirming/confuting stereotypical factors of marginalization. What follows is particularly inspired by Amartya Sen's Capability Approach and provides conceptual and methodological guidance on applying the conceptual framework to empirical analysis. As already introduced in a previous section, capabilities - or more frequently, functionings - are likely to be the dependent variable of empirical studies, as in most cases, their modification informs about social change, progress or decline in the provision of opportunities.

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10 Empirical investigation may of course fail in detecting the manifestation of disadvantage.
3.1.1. Unit of Analysis

The Unit of Analysis:

The unit of analysis applies to the single observation being collected within a data collection: it may be defined as "the social object to which characteristics studied in empirical research refer to" (in Corbetta, 1999). In the case of secondary data, the unit of analysis is typically to be intended as the smallest possible level of disaggregation that is possible within a data set. While it is usually possible to aggregate single observations at higher levels (for example individuals into families or neighbourhoods within regions), it is methodologically inappropriate to assign higher-level observations to unit of analysis at a lower level. The reason why higher-level features cannot naturally be applied to lower level units has to do with within inequality (for example among individuals within the same group).

It is relevant to make clear which unit of analysis we are considering when considering a case-study (see BOX 3 below) or a certain methodological approach. Of course, different elements of interest may be located at different types of units of analysis, but in empirical analysis, it is usually the unit of analysis of the dependent variable that is of greatest interest: in applying the CRESSI framework, this corresponds to the level at which we are identifying marginalization.

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11 The bias that is implicit in disaggregation, which is usually implemented by assigning the average value of the higher level to the lower level observations has been coined as Ecological Fallacy by Robinson (1950): where the statistical object is a group of people (ecological correlation), the results should not be used to infer about individual behavior.

12 For instance, to assume that each single household’s member, by definition, enjoy the same household’s well-being, as this might mask the existence of deep intra-household inequalities.
BOX 3: Using Case Studies

The case study is a research strategy, used in social research to explore a phenomenon in relation with one or more different contexts. In fact, this strategy relies on a combination of multiple research actions (that can combine either qualitative or quantitative techniques) in order to achieve a deep understanding of a phenomenon in relation with the context of the research, highlighting the process by which it is enacted by the actors involved.

Social scientists usually draw upon case studies when the boundaries between a phenomenon and its context are not clear: as in the case of social innovation processes, which are not easily distinguishable from the social forces from which they arise. A second advantage of case studies is the possibility to have a deep understanding of a phenomenon in close connection with theory: each dimension of the phenomenon under investigation can be explored with a different technique and the coherence of the result is guaranteed by the focus on the case under investigation. Last but not least, the strategy can be built on a deductive approach in order to assess the capacity of hypothesis in predicting the outcomes of a social process, by using a theoretical sampling approach in the cases’ selection.

There are different case study strategies (multiple vs. single, holistic vs. embedded cases), and the CRESSI project makes use of the case study approach in different ways. Historical case study analysis draws lines of deeper understanding between origin, process and impact of social innovation processes (see D.2.1 of the Cressi project\textsuperscript{13}), whereas quantitative case studies are planned in order to collect new empirical evidence on currently on-going social innovations (see the forthcoming results of the CRESSI WP7).

For the quantitative case-studies foreseen by WP7, a multiple embedded case strategy is proposed: having more than one case allows comparing the implementation of social innovation in different contexts, while the focus on different units of analysis (i.e. social innovators vs. beneficiaries) will also offer the possibility to investigate the different perspectives of the actors involved. The cases in CRESSI are strategically selected in order to test the impact of the context on research results: different cases in geographical and content terms are included, in order to test the effectiveness of different experiences of social innovation in reducing the marginalisation of the beneficiaries.

[For further details see WP2 and WP7 in the CRESSI project description]

It is common to find rather broad and general categories such as \textit{micro}, \textit{meso} or \textit{macro} levels, which however do not automatically and uniquely define the concrete empirical level of analysis. Figure 4 shows that the exact definition of a micro-level unit of analysis within the social sciences depends on the particular research context. Micro can apply to both, individuals and to enterprises, for example. The diagram shows that, there is a continuum of level of analysis ranging from the macro level, which may be identified at national or even international or global level, to the very micro-unit of analysis, which typically refer to individuals or some specific subgroups of them. What is usually not sufficiently investigated but nonetheless rather important is the meso level.

\textsuperscript{13} CRESSI Project Deliverable D2.1 Evidence base of three comprehensive case studies following a common template was submitted to the EC on 31 March 2015.
For the scope of CRESSI it is particularly relevant to include marginalized individuals and groups into the analysis. In line with the Capability Approach, it is preferable to identify elements of marginalization and of vulnerability at the individual level, which also typically corresponds to the lowest level of disaggregation.

### 3.1.2. Dimensions of Marginalization

Which are the specific life dimensions in which we should search for potential and empirical factors of marginalization? These may be many and, in principle, any selection of dimensions in which to focus the analysis should not be arbitrary. The Capability Approach has provided abundant conceptual and empirical guidance on how to identify dimensions for measuring multidimensional poverty or of well-being (see Box 4 below). However, a unique or preferable method does not exist as this will usually depend on the scope and the context of analysis.
BOX 4: To list or not to list - that is the question

Most of the methodological choices related to measurement do not pertain exclusively to the Capability Approach but are common to other multidimensional approaches to well-being: they are not merely technical or empirical but are primarily normative, since they characterise the core meaning of well-being/the multidimensional phenomenon that we want to describe and analyse. An element of distinction in this literature has been its capacity to endorse a broad and intensive debate at each single step. For instance, considerable discussion has focused on which capabilities should be considered, who should compile this list, whether or not there should be a scale of priority amongst them and how should all of this be done. The positions range from Sen’s view that it is inappropriate to make any a priori list, since the definition of what people value should be open to diverse conceptions of good, justice and advantage (Sen 2004, 2009), to that of Nussbaum, who argues forcefully in favour of a universal list of capabilities and formulates a specific list of ten human capabilities (Nussbaum 2000, 2003, 2011).

Other authors have contributed to this discussion: Robeyns (2003) identifies a procedure and a set of criteria for selecting dimensions and reaches a consensus on a list of capabilities or functionings; and Alkire (2007) matches some existing lists and compares the methods adopted in several studies for selecting these dimensions. Many authors argue that ‘the list of things people have reason to value’ should reflect people’s values and priorities and therefore it should be effectively drawn from deliberative and participative processes (Crocker 2006, 2007, 2008). Each ‘bottom-up’ list may vary, depending on the views of people in different circumstances, times and locations. Hence these two perspectives of how to identify capabilities result in either a single list or multiple lists.

This debate, which is primarily philosophical and methodological, nevertheless affects empirical analysis: Nussbaum’s list, or reduced versions narrowed down to a set of basic capabilities, has inspired several empirical papers (see, amongst others, Anand et al. 2005). Similarly, bottom-up participative procedures have been implemented to empirically derive a list of capabilities (see Biggeri et al. 2006:86; Burchardt and Vizard 2011).

[Adapted from Chiappero-Martinetti et al. 2015; emphasis added]

In the CRESSI framework, a mixed method of pre-definition and co-construction in the selection of relevant dimensions is suggested, due to two reasons: on the one hand, the social innovation process is drenched with the notion of empowerment. On the other hand, the working definition of marginalization envisages some sort of disadvantage. It seems natural to therefore envisage the lack of power in society as a cross-cutting disadvantage. Within the CRESSI conceptual framework, we find normative guidance for the identification of dimensions in which social power tends to manifest: we recur to Mann's and Heiskala's NACEMP model in order to broadly define the six areas of life in which there may be absence of power and/or ongoing empowerment processes; namely, nature, artefacts/technology, culture, economy, military/personal security and politics. The selection of these categories derives from an extensive in-depth sociological analysis of human societies' history and may therefore represent some proper guidance, especially as the nature of the dimensions is rather broad and encompassing. Yet, how can we still make room for participatory processes in which the content of “the list” is defined bottom-up? In line with BOX 2, an option could be a "bottom-up" driven specification of the concrete ways in which
the dimensions of the NACEMP model decline within particular social innovation processes. Such an approach would combine the advantages of comparability with those of deliberative representativeness. In what follows, we will focus on how the lack of power may be conceived and empirically measured.

3.1.3. Marginalization as a distance concept

The concept of marginalization reminds of the idea of a peripheral position of a given subject or a specific group within the society. It might reflect a physical or spatial distance in an urban setting, as in the case of marginalized neighbourhood areas, or with respect to the production or consumption markets, as for small, informal producers in rural areas or isolated consumers; it can reveal a social or economic distance, due to forms of discrimination or stigmatization of certain groups in the labour market, or in the persisting position at the bottom of income and wealth distribution; it can be intended as a political exclusion from decision-making processes or as a lack of voice and representativeness in the political arena.

Whatever space we want to consider for investigating marginalization, it seems to be appropriate to refer to it in terms of distance; both absolute and relative (see BOX 4 above).

**BOX 5: How to measure marginalization and disadvantage, absolute and relative measures**

In order to account for inter-group comparisons in terms of income, well-being or opportunity or to identify the most disadvantaged or marginalized groups in a given society we need first to consider how differences among individuals or groups can be interpreted and measured. A long standing body of literature in economics and other social sciences has empirically explored this concern, examining concepts such as horizontal inequality (Stewart, 2009; Jayaray and Subramanian 2006), segregation (Hutchens, 2004), social exclusion (Levitas, 2000; Gordon et al., 2000; Atkinson et al 2002; Marlier et al, 2007), polarization (Esteban and Ray, 1994; Anderson, 2004 and 2005; Duclos, Esteban and Ray, 2004) and related ideas about differences between groups and how they can be measured (see Subramanian 2011; Reddy and Jayadev, 2011 among others). Roughly speaking it is possible to cluster the large spectrum of inter-group (between group) inequality measures in two broad categories: those who pay attention to absolute differences (that is on the total gap between average group positions) and those who concentrate on relative differences (measured as ratio between group rates or comparing these rates with a mean or any other reference point in the overall distribution). Basically, if in the former category the distance matters more than the level, in the latter attention is paid to the position of each single group with respect to the entire distribution.

The distinction between relative and absolute inequality may be considered rather straightforward when framed in terms of income. In such a case an absolute measure of income inequality simply looks at the differences in income levels whereas a relative measure of inequality compares income groups’ positions either to each other (e.g. the Gini index) or to the mean or median income in the whole community (e.g. measures of generalized entropy). Relative measures are more commonly used in income inequality analysis although information about the absolute distance between groups can offer important insights in terms of policy strategies (Ravaillon 2004; McKinley, 2009). For instance, to know whether the most disadvantaged gain (or lose) more in absolute terms or vis-à-vis other (more favourite)
groups, can provide important additional information about the living conditions of the disadvantaged group, compared to the standard procedure that simply averages gains and losses across the board.

The interpretation and measurement can be less straightforward, but nonetheless very important, when attention is focused on other relevant spaces, which are frequently measured by recurring to ordinal variables (such as health or education or social and political participation) instead of using a continuous metric such as income. Once again, we may just focus on the absolute hiatus between two groups or on their relative differences. The simple algebraic difference, however, is not an optimal indicator, as it does not pay attention to the level at which the hiatus exists (e.g. an equal absolute difference can have a different impact if it occurs at a very poor level of performance or at a higher one); in addition, an absolute equal improvement or deterioration will be equally evaluated. Alternatively, we can account for inter-group differences in relative terms as the degree to which distinct groups are systematically over or under-represented in their possession of a given attribute (i.e. levels of income or health conditions or occupational status). On the other hand, we might consider the relative position of a given group with respect to the overall ranking. Finally, we can proceed with a pairwise comparison of group performance, in terms of the ratio, between group specific values of the indicator. However, also in this case inter-group differentials in performance with respect to a social indicator may be expected to acquire different significance depending on the level of the indicator.

In the CRESSI project the marginalized groups are supposed to be the beneficiaries of the social innovation; therefore, they are ex-ante or implicitly pre-defined by the case-study itself. Nonetheless, we will try to measure the degree of marginalization or remoteness of these groups making use of absolute and relative measures of distances.

3.1.4. Agency and How to Measure it

Agency:

Within the capability approach, individual agency is one of the components that enable individuals to be empowered and, roughly speaking, it represents the ability to realize their own life plans. More specifically, agency can assume two different, though related, meanings depending on what we want to refer to, the achievement or the freedom dimension of agency. According to Amartya Sen, an individual's agency achievement "refers to the realization of goals and values she has reason to pursue, whether or not they are connected with her own well-being" (Sen, 1993: xx; emphasis added). Agency freedom, on the other hand, refers to the potential a person has in order to pursue "whatever goals or values he or she regards as important" (as in Sen, 1985:206), and again not only those that go to his or her own advantage, as it is in the case of well-being freedom.

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15 This is the case, for instance of the measures of segregation. Reddy and Jayadev (2011) define this type of measure as measure of representational inequality while Subramanian (2011) refers to it as group-specific measures of relative disadvantage.
Both definitions are relevant for CRESSI’s purposes: agency achievements allow assessing and understanding empowerment as it is; agency freedom, on the other hand, how it potentially can be. In addition, agency freedom, which can be intended as the opportunity to realize achievements, can be further qualified, extended or constrained by the social, political and economic opportunities available as well as by the social arrangements (on this see also Robeyns, 2007 and Crocker 2008). To the extent that social innovation can contribute to enlarging agency freedom, it may directly reduce marginalization.

In a quite circular way, through agency, personal freedom is increased, and through personal freedom the space for agency is enlarged. Agency is therefore a crucial driver for self-realization and for the increase of opportunities that an individual might face. Agency does not only play a role for the single individual, but also for the kick-start of social innovation processes themselves.

Although agency and well-being have been conceived, and should be referred to, at the individual level in much of social research the role of group action or of collective action is recognized: when different individuals move into a certain direction they may be able to provoke change. While it is difficult to imagine that a single individual and her/his agency might be sufficient to change any social structure, a relevant amount of individuals that group together (form a network) and structure their goals (share a cognitive frame) can exert pressure for change at the social level (in line with Beckert's view on social innovation processes, see Figure 5 below). Therefore, collective agency takes place when individuals engage in a collective process that results in a joint decision and action (see Crocker and Robeyns, 2009)

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16 In most of philosophical accounts, groups or collectivities are not understood to be capable of an own agency. Instead, collective action is always reduced to the sum of individual agencies. An exception is the strand of Social Ontology in which the dynamics of collective agency are studied.
Even though the definition of agency may be rather clear, the assessment of what influences agency, namely what enables or restricts an individual’s freedom to do and to achieve, is problematic. Narayan (2005) argues that agency is constrained by the ‘opportunity structure’ that individuals face during their life. In this structure, the author includes institutional climate, social and political structures (Narayan, 2005). In this regard, Beckert's social forces contribute to shaping the opportunity structure of individuals that are exposed to them.

**How to measure agency?**

How should and can agency be measured? Alkire and Chiappero (2008) define agency as “… inescapably plural in measurement as well as concept” (Alkire and Chiappero-Martinetti, 2008:2). This ‘plurality’ is actually due to multiple (sometimes interrelated) dimensions in which agency can play a role, and to different group-affiliations of actors, which have an impact on their agency-process. As a consequence, several measures of the different aspects of agency have been proposed. Ibrahim and Alkire (2007) propose an influential review of five typologies of indicators:

1. ‘Power over/control’ indicator reflects control over personal decision-making that affect everyday activities; this indicator has been used, among others, by the World Bank and it measures how much an individual has control over her own decisions.
2. ‘Power to/choice at the household level’ measures the intra-household decision-making process, therefore highlighting the differences between gender roles. This information is captured through one question that investigates who takes the decisions in the household life, in several domains.
3. ‘Power from within/change’ indicator focuses on the ability to induce a change in one's own life. It is based on three questions that evaluate what the individual wants to change in his/her life and who contributes to those changes.
4. ‘Power with/community’ measures the level of ability to change the community’s life in order to empower it. As the previous one, this indicator measures the ability to
generate change, although focusing more on the communitarian sphere, rather than on the personal one.

(5) ‘Power to choice at the domain level’ indicator concentrates on the individual autonomy to make a choice. Instead of measuring the changes or who contributes to them, this indicator evaluates the reasons why an individual decides to do something (i.e. sending a child to school). In this way, it is possible to investigate if an individual is autonomous in taking the decision or if he/she is constrained by the society, by household members, or other factors.

**BOX 6: Self Determination Theory (SDT) and the Relative Autonomy Index (RAI)**

An interesting attempt for measuring agency is represented by the Relative Autonomy Index (RAI). The RAI is based on the Self Determination Theory (SDT) formulated by Deci (1971). The idea behind this theory is that an individual’s motivation varies along a continuum of perceived self-determination, ranging from non-self-determined (or controlled) to self-determined (or autonomous) forms of behavioural regulation (Wilson, Sabiston, Mack, and Blanchard, 2012). The purpose of the RAI is to evaluate in which position of this continuum the individual’s motivation is situated. The general formula of the RAI is a weighted sum of the constructs that constitute this continuum: external regulation, introjected regulation, identified regulation, integrated (or intrinsic) regulation (Ryan and Connell, 1989). In order to aggregate the four constructs, several ‘scoring protocols’ (Ryan and Connell, 1989) or weight-systems have been developed, a complete list of all aggregation system is included in Wilson, et al. (2012). The most influential formula for the RAI is the one proposed by Ryan and Connell (1989). In this specific case, the two constructs representing lack of autonomy (external and introjected regulation) are negatively weighted, respectively -2 and -1, while the two constructs representing positive levels of autonomy (identified and integrated regulation) are positively weighted, respectively +1 and +2.

We can identify two key strengths of this index. First of all, since it estimates the level of autonomy by directly asking the individual, it embeds both intra-household decision-making process and societal constraints. Second, it investigates the individual level of agency regardless of personal values. Despite the significant theoretical contributions of this index, it also presents some weaknesses. Alkire and Chiappero (2008) investigate two methodological issues related to the RAI: the assumption that an individual’s motivations (the four constructs) vary along a continuum of perceived self-determination, and the specific weight-system proposed by Ryan and Connell (1989). By making use of multidimensional scaling techniques and applying them to a dataset related to women agency in Kerala, the authors validate the first assumption while they argue that the weight-system proposed by Ryan and Connell (1989) is not fully consistent. In fact, for them, “the rank and distance of these variables perceived by the respondent is different from that ‘imposed’ by the SDT” (Alkire and Chiappero-Martinetti, 2008:11). In particular, results about the respondents’ perception on their freedom ‘to do’ and ‘to achieve’ is affected by the individuals’ background (e.g. social status and context where they live) due to adaptive preferences. In a study conducted in Kerala, for example, Alkire, et al. (mimeo) confirm that more educated women perceive having a lower level of autonomy with respect to less educated ones (see also Ibrahim and Alkire, 2007, on agency and adaptive preferences).

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17 Following the categorization provided by Alkire (2007), this index belongs to the group ‘Power to choice at the domain level’ indicators since it focuses on individuals’ autonomous choices.
### 3.1.5. Subjective versus Objective Evaluation

Another methodological choice that is relevant for the measurement of agency (and, of course, not only of agency) is the collection of subjective versus objective evaluations of conditions or behaviours. Typically, objective data are based upon observation of measurable facts and are conducted by an observer-independent assessment. On the contrary, subjective data relate to personal evaluations, perceptions, feelings or opinions directly expressed by the interviewed. A growing literature considers the objective approach necessary but not sufficient to evaluate individual living conditions such as poverty or well-being (Ravallion, Himelein, and Beegle, 2013; Ravallion, and Lokshin, 2002; Stiglitz, Sen and Fitoussi, 2009; Biswas-Diener and Diener, 2006). Most studies do not put objective and subjective measurements in contrast, but rather on the contrary see these two approaches as complements.

Undoubtedly, some individual achievements can be defined using objective methods: examples are the quality of a house or the years of schooling. Yet, an objective measurement does not necessarily fully reflect an individual's condition: we are not automatically able to assess to which extent the observable achievement corresponds to that person's goals, which on the contrary may be captured by subjective evaluations.

With respect to agency, however, the essential contribution of a subjective measure is the evaluation of the degree of an individual's possibility to achieve her own goals - own in the sense of defined by herself. In fact, the objective quality of a house, or the years of schooling are measures that cannot automatically define the corresponding level of satisfaction with respect to the person’s own goals (Veenhoven, 2002). Moreover, the subjective measures are important because they allow understanding the individual opinion about his/her condition (Alkire, 2005): an aspect that is not detected with an objective measure. Therefore, subjective measures of agency can complement the objective ones. Further, subjective measurement consists in including aspects of daily life that are hardly measurable with objective approaches, but which are considered automatically in subjective evaluations of own living conditions.
BOX 7: Vignettes and interpersonal comparison

Despite the valuable contributions that subjective approaches deliver, they also present some drawbacks, which are related to self-perception and comparability between individuals. In fact, perceptions can differ across individuals, depending on experience and contextual factors (such as cultural, social and personal factors). As outlined by Burchardt (2009), adaptive preferences can affect individual perceptions of living conditions in a remarkable manner: “in general terms, subjective adaptation may be said to occur when an individual’s assessment of his or her situation or outlook for the future is influenced by his or her past experiences” (Burchardt, 2009, p. 4). Different backgrounds and experiences represent the root causes for the fact that all methodologies based on subjective evaluation have to deal with the problématique of ‘interpersonal incomparability’. The method of ‘anchoring vignette’ developed by King et. al. (2004) is assumed to allow for the comparison of individuals’ heterogeneous opinions.

The ‘anchoring vignette’ methodology allows linking individuals’ answers, usually collected through some sort of self-assessment questions to a shared and a comparable scale: the vignette. The word ‘vignette’ can be misleading since it seems to refer to an illustration while it simply represents a brief description of a specific item or situation. The vignette usually describes a situation of a hypothetical person, and the only variation between individual responses is due to different perceptions of the given situation. The procedure consists of two steps. In the first step, the respondent replies to a self-assessment question - therefore evaluating one's own situation - using a ladder [for example, ranging from 0 to 9]. In the second one, he/she matches each of the provided vignettes to some value on the same ladder. Self-assessment answers are understood to be the results of mental processes that depend on the actual level of the individual’s well-being as well as on contextual factors. On the contrary, the vignettes ranking only depend on the contextual factors, since the assessment of a hypothetical situation is not as affected by emotions and feelings as self-assessment. Through this double questioning, it is possible to derive the individual opinion, without the conditioning of contextual factors, by ‘anchoring’ the self-assessment answer to the vignettes distribution (defined by the ladder). The ‘anchoring’ process consist in re-ranking the response from the self-assessment answer to the vignette answers, to comprehend in which position the respondent locates with respect to the peers described in the vignettes. In overall, this methodology allows having a comparable measure of subjective opinions (King, et al., 2004).

[Adapted from Giroletti, 2015]

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18 The term interpersonal incomparability is not referred here to the broader and more controversial issues of ‘interpersonal utility comparisons’; it simply refers on how to compare different individuals who might have different perceptions due to their different backgrounds.
3.2. Social Innovation

The CRESSI working definition of social innovation refers to "the development and delivery of new ideas (products, services, models, markets, processes) at different socio-structural levels that intentionally seek to improve human capabilities, social relations, and the processes in which these solutions are carried out" (CRESSI, p.6 part B). The definition comprises individual returns (human capabilities) and social returns (relations and processes) among the motivations that drive social innovation. The Beckert framework further stresses how interrelated social innovation processes are with surrounding social forces: changes in institutions, networks and cognitive frames open spaces for social innovation processes, which in return potentially change institutions, networks and cognitive frames.

But how should social innovation be measured, given that its scope may be extremely differentiated? And, which measurement techniques allow identifying those characteristics of social innovation process that interrelate with the surrounding social forces? Social innovation is a complex phenomenon; therefore it is likely that no single number or variable can properly describe it. But which and how much information should be gathered, and how should it be combined? These methodological questions are addressed in this section.

3.2.1. Composite Indicators or a Dashboard Approach?

Measuring an intrinsic multidimensional concept such as social innovation and the impact it can produce on individuals and social contexts, typically requires to gather, manage and organize in a consistent and coherent manner a large amount of statistical information.

Generally speaking, two different approaches can be adopted: a) to summarize all information available into a single, composite indicator or b) to organize the multiple indicators within a common and structured frame, usually defined as a dashboard of indicators. In the last forty years, several composite indexes have been developed and revised following the growing evolution of multidimensional perspectives in poverty, quality of life and well-being analysis. Their main acknowledged feature is that they summarize multiple information into a single number; therefore facilitating the comparison across countries or regions, as well as across years (Alkire, 2011). A composite index involves several methodological choices regarding:

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19 For detailed treatment on how innovation processes can be thought to affect capabilities, see Ziegler (2010, 2012).

20 See Ziegler (2010) for a discussion of how complex and multi-faceted 'the social' is, especially in a context of conflicts of interest, value diversity and exclusive public spheres.
1) a selection of the constituting dimensions and the corresponding variables that characterize them;
2) a transformation function, for normalizing or standardizing information expressed in different units of measurement (eventually re-setting the distance between different conditions within each dimension);
3) a set of weights and an aggregation procedure to combine different dimensions.

Every single step and any methodological choice is not neutral and can produce remarkable effects on the empirical results (for an example of the magnitude of these effects see Chiappero-Martineti and von Jacobi, 2012). Lack of transparency in the methodological choices adopted can lead to unpleasant side effects of composite indicators: in fact, while the arguments for developing composite indicators are rather evident and often emphasized, the arguments against are sometimes not sufficiently acknowledged and only recently some concerns have been raised suggesting more cautiousness in the use of multidimensional indexes. The Stiglitz-Sen-Fitoussi Report remarks that “what we measure affects what we do and if our measurements are flawed, decisions may be distorted” (Stiglitz et al. 2009, p. 7). Ravaillon (2010) outlines that most of the “mashup indices” of development and poverty currently available are rarely rooted into a prevailing theory or grounded on robust methodological assumptions. They are generally driven or substantially affected by the availability of statistical data and composed without providing a satisfactory justification of the full range of measurement problems implied in their construction (in Chiappero-Martineti and von Jacobi, 2012).

In order to avoid such inconveniences, Ravallion (2011) suggests using a different approach, in which the aggregation of different dimensions is not implemented: the so-called "dashboard approach". This method consists in a set of multiple indicators - each one providing information about a specific dimension of interest. Since the dashboard is a mere list of indicators, it is not subject to some of the problems of the composite approach. The dashboard makes it unnecessary to have a unique unit of analysis within the data because it does not imply the aggregation procedure (Alkire, S. 2011). Therefore, it is possible to choose more freely which variables and dimensions, belonging to which surveys, could better represent the reality of the subject under analysis. Besides, the construction of a dashboard does not imply the use of aggregation weights, always affected by some degree of arbitrariness and therefore excludes the problem of the trade-off between dimensions right from the start.

A European example of the dashboard approach is the Sustainable Development Indicators (SDIs)\textsuperscript{21}, constructed in order to monitor the EU Sustainable Development Strategy (EU SDS). The first set of SDIs was presented in 2001 on the basis of EU SDS and supported by the European Commission in 2005. The latest version of this dashboard includes ten dimensions, and each one of these is composed by headline indicators that represent the challenges, the actions and the operational objective of the EU SDS (European Union 2013). Other examples of composite indicators and dashboards that refer to innovation and technology can be found in CRESSI deliverable D.3.3.\textsuperscript{22}

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\textsuperscript{21} Eurostat

\textsuperscript{22} CRESSI Project Deliverable D3.3, Overview of Existing Innovation Indicators, was submitted to the EC on 27 July 2015.
BOX 8: Composite indicators construction

The Handbook on Constructing Composite Indicators (OECD, 2008) summarizes the construction of Composite Indicators in ten steps. The first step namely ‘developing a theoretical framework’ consists of defining the phenomenon under analysis and its multidimensionality. This first passage is important because it prepares the ground for the indicator, through the definition of the sub-groups and the criteria for selecting the variables. The second step consists of ‘selecting the variables’. In this phase, it is necessary to define which are the data that better represent the subject under analysis, also considering different characteristics, for example, temporal continuity and geographical availability. The third step is the ‘Imputation of missing data’. This phase is dependent on the accuracy of the dataset used: where necessary, missing values in some variables/dimensions can be imputed through different techniques. The ‘multivariate analysis’ is the fourth step and it consists of investigating the underlining structure of the dataset, identifying eventual similarities between indicators, and evaluating if the dataset correspond to the theoretical framework defined in the first step. The ‘normalisation of data’ is a necessary step in order to homogenize data with different units of analysis, in order to make the variables comparable. The sixth step is the ‘weighting and aggregation’ and defines the process through which the different dimensions are combined into a unique metric: it consists of selecting the weighting system and the aggregation procedure. Once defined this last step, it is possible to verify the robustness of the indicator through the ‘uncertainty and sensitivity analysis’. This seventh step is important because it allows assessing the validity of the previous steps and the final composite. The last three steps, which are: ‘back to the details’, ‘links to other indicators’ and ‘visualization of the results’ are related to the analysis of results, useful to check for the final adjustments and to present the empirical findings.

[Adapted from OECD, 2008]

3.2.2. A Mobile Dashboard Approach

Given that social innovation processes might be very different in their nature, scope and scale, is it possible to identify methodologies that allow us to both, measure social innovation along some criteria and compare them between each other? One of the main difficulties faced in the attempt to compare different social innovation processes is the heterogeneity of the potential case studies topics. Each case study may present its specificity and a direct comparison may not always be possible. So we have to find a possible mechanism to identify elements for comparison and to collect information on them within each case. Comparison between different cases may be implemented through composite indicators or through a dashboard approach, as previously discussed. In this section we present an intermediate solution, which harvests from the dashboard approach but facilitates the comparison of cases along some criteria. In Figure 6 below an example of a mobile dashboard is represented, which follows a double layer strategy.

On the first layer it groups a set of more general conceptual dimensions deriving from a given theoretical framework. Each of these dimensions can be translated into a metric index.
Figure 6: Example of a mobile dashboard

<table>
<thead>
<tr>
<th>FIRST LEVEL</th>
<th>SECOND LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(theoretical comparison)</td>
<td>Specific for each case</td>
</tr>
<tr>
<td></td>
<td>Indicator 1.1</td>
</tr>
<tr>
<td>Conceptual dimension 1</td>
<td>Indicator 1.2</td>
</tr>
<tr>
<td>(index 1)</td>
<td>Indicator 1.3</td>
</tr>
<tr>
<td></td>
<td>Indicator 2.1</td>
</tr>
<tr>
<td>Conceptual dimension 2</td>
<td>Indicator 2.2</td>
</tr>
<tr>
<td>(index 2)</td>
<td>Indicator 2.3</td>
</tr>
<tr>
<td></td>
<td>Indicator 3.1</td>
</tr>
<tr>
<td>Conceptual dimension 3</td>
<td>Indicator 3.2</td>
</tr>
<tr>
<td>(index 3)</td>
<td>Indicator 3.3</td>
</tr>
</tbody>
</table>

Generally speaking, the number of such conceptual, or more macro, dimensions should not be greater than 7 or 8 as a maximum. It is important to create a parsimonious set of indexes to gain a better overview of the information available and to maintain better management of data in subsequent phases of analysis. For this reason it is important to pay great attention to the choice of the dimensions, which should be limited to those that are mostly relevant for comparison purposes. The following sections deal with the identification of such a possible list of dimensions, with the aim to facilitate empirical comparison between different cases.

At the second layer, it is advisable to define a specific sub-set of indicators (typically not <2 but not >4) for each macro-dimension. This allows for more detailed and case-specific collection of information: therefore, a different set of specific indicators may be associated to each case study, still preserving the same set of dimensions at the conceptual level. In overall, this strategy helps to preserve the specificity of each case - a key element for investigating social innovation processes - yet allowing to make a direct comparison at a more general and theory-informed level.

3.2.3. A Checklist for Identifying Comparable Indicators

Which macro indexes and which sub-sets of indicators should be used? Which information should be collected in order to properly capture the characteristics of a social innovation process? As previously mentioned, social innovation is a complex phenomenon and requires considering a plurality of different aspects and characteristics in order to properly describe it. Yet, on the base of which criteria should these aspects be chosen? The CRESSI project with
its own conceptual framework\textsuperscript{23} has produced a checklist, which comprises those aspects of social innovation processes, which are likely to inform about: (a) involvement of marginalized individuals or groups, (b) interdependencies with social forces, (c) other, more general characteristics of the social innovation such as scope and scale of action.

\textbf{A methodological checklist:}

The checklist created within CRESSI is a spreadsheet, called \textit{MethList} (Methodological List), represents a first step towards the identification of different and appropriate data that may feed into a mobile dashboard that measures and characterizes a social innovation process. In particular, the tool is organized in sections, which address different \textit{blocks of information} that are relevant for capturing a social innovation process and its potential impact. Such blocks of information can be helpful in order to identify those elements that may facilitate the selection of macro indexes.

\textbf{Examples of categories of information:}

In what follows, we present some examples of those 'informational blocks' that are relevant for empirical analyses of social innovation process and which may represent conceptual dimensions for the first layer of a mobile dashboard.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{identity_of_the_social_innovation.png}
\caption{Identity of the Social Innovation}
\end{figure}

The \textbf{identity of the social innovation} section, for example, tries to gather information on the main content and the objectives that drive the social innovation process from the start. Understanding the initial \textit{reason d'être} of the social innovation process is deemed to be relevant for framing impacts, both those expected \textit{ex-ante} and those monitored \textit{ex-post}. In order to account for complexity, which is likely, the section tries to alert that both, the social problem addressed and the explicit beneficiaries, might not stay the same through time (see

\textsuperscript{23} For an introduction to the CRESSI theoretical framework, see deliverables D.1.1 and D.1.3. CRESSI Project deliverables: D1.1 Report on Institutions, Social Innovation & System Dynamics from the Perspective of the Marginalised (submitted to the EC on 18 December 2015); and D1.3 Report Contrasting CRESSI’s Approach of Social Innovation with that of Neoclassical Economics (submitted to the EC on 28 February 2015). Also available as working papers on the CRESSI website at: http://www.sbs.ox.ac.uk/ideas-impact/cressi/cressi-publications
for example the historical case studies investigated in the CRESSI deliverable D2.1\textsuperscript{24}). Selection criteria and elements of marginalization addressed further serve for a clearer detection of targets and impacts.

The social innovators section aims at identifying the human drivers of the social innovation process: initiators, mobilizers, accomplices and their networks. Some points highlight the interplay between different actors, trying to remind of potential collaborations and conflicts that may be present among different groups of interest.

A degree of innovation section seeks to highlight the reach and potential relevance of the social innovation process investigated. It records information on the novelty and potential spill-over effects, but also on the type of resources that are necessary. In overall the section should provide information on the degree of change that can be attributed/expected from the social innovation process.

The section on characteristics of the context tries to check for potentially relevant control factors. A variety of possible manifestations of impact is considered - implicitly addressing that the type of manifestation can depend on the particular context within which the social innovation process is taking place. Other potential control factors may also be considered.

\textsuperscript{24} CRESSI Project Deliverable D2.1. Evidence base of three comprehensive case studies following a common template, was submitted to the EC on 31 March 2015.
A final section collects basic information on the social innovation process being analyzed, such as time, place and duration of implementation, previous attempts to measure its impact and reach of the process if estimable.

*Imagining the sub-set of indicators:*

The following figures show further details of the *MethList*, in particular they provide examples of which types of questions and data collection methods can be associated to the previous sections in order to collect the desired information. The below examples simply provide examples of how questions for a structured questionnaire may be constructed or can offer some general guidelines for qualitative in-depth interviews. Of course, other typologies of answers may be derived through *ex-post* codification (see section 2.3.3)

<table>
<thead>
<tr>
<th>CASE FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>250</td>
</tr>
<tr>
<td>PREVIOUS ATTEMPTS TO MEASURE THE SOCIAL INNOVATION</td>
</tr>
</tbody>
</table>

---

**IDENTITY OF THE SOCIAL INNOVATION**

**TARGET OF THE SOCIAL INNOVATION PROCESS**

THE UNIT OF ANALYSIS OF THE SOCIAL PROBLEM IS...

| individual-specific |
| group-specific |
| context-specific |
| institution-specific or organization-specific |
| resource-specific |
| practice-specific |
| not specific/unclear |
| other |

AND ITS VARIATION THROUGH TIME

| stays the same throughout the process |
| changes throughout the process |

STRUCTURAL CHANGE IN SOCIAL RELATIONS/POWER RELATIONS IS ADDRESSED...

| explicitly/directly |
| indirectly |
| not at all |
### TIME-FRAME ENVISAGED FOR THE SOCIAL PROBLEM

- short term *(please specify)*
- medium term *(please specify)*
- long term *(please specify)*

### CHARACTER/SEVERITY OF THE SOCIAL PROBLEM ADDRESSED

- emerging need/problem
- long term problem
- treatable in isolation
- highly intertwined with other problems *(wicked problem)*

### EXPLICIT BENEFICIARIES OF THE SOCIAL INNOVATION PROCESS

**The Unit of Analysis of the Beneficiaries...**

- individual
- family
- group
- neighbourhood
- city/region
- other

**And Its Variation Through Time**

- stays the same throughout the process
- changes throughout the process

### SELECTION CRITERIA FOR TARGET GROUPS

- age
- gender
- race/ethnicity/minority groups
- income class
- employment status
- education
- health
- participation (civic, political...)
- isolation from networks
- absence of security
- shelter
- environmental risk/degredation of area
- political/ideological criteria
- administrative-geographical
- other

### ELEMENTS OF MARGINALIZATION ARE ADDRESSED

- directly
- indirectly
### SOCIAL INNOVATORS

#### ORIGIN/PROMOTERS OF THE SOCIAL INNOVATION

- entrepreneur (private sector)
- entrepreneur (not for profit)
- public sector (national level)
- public sector (local level)
- existing organization (civil society)
- newly founded organization (civil society)
- other

#### INTERPLAY BETWEEN ACTORS OF THE SOCIAL INNOVATION PROCESS

#### ARE INITIATORS DISTINCT FROM PROMOTERS? WHY?

- yes
- no

#### ARE PROVIDERS DISTINCT FROM FUNDERS?

- yes
- no

#### COLLABORATIONS AND CONFLICTS

- actors that interact: collaborations
- actors that interact: conflictual positions
- other

#### TIME-VARIATION

- stay the same throughout the process
- change throughout the process

#### ACTIVITY OF SOCIAL INNOVATORS

- is mainly focussed on the social innovation process
- comprises multiple projects: social innovation process is main priority of activities
- comprises multiple projects: social innovation process is not the main priority of activities
- other
4. Social Forces: Networks, Cognitive Frames and Institutions

Inside of the Context: Social forces:

If the scope of empirical investigation is also the identification of drivers, facilitators and obstacles to the social innovation process, we need appropriate measures for potentially relevant external factors, too. Within the context of the innovation process, we are likely to find a series of circumstances and features that may play a role for the emergence, implementation and the effect of innovative ideas. CRESSI's focus on Beckert's social forces helps us to group a large number of possible contextual factors into three overarching groups:
networks, institutions and cognitive frames. These may in fact interact or condition social innovation:

**Networks**: is a social structure that exists between and is constituted by interconnected actors, which may be e.g. individuals, organizations or firms. It is intended as non-casual grouping of individuals. Networks typically call for a horizontal perspective, giving less weight to hierarchies; relational and collective aspects are put at the centre of attention; they tend to be instruments for information transmission. **Network position** (usually conceived at the individual level) has a hierarchical meaning when the strategic positioning of certain individuals/enterprises is taken into account. This is usually done through network statistics, e.g. *centrality measures*.

**Cognitive frames**: refer to the mind-frames of people: their beliefs and mental structures, which affect their perception of reality. Cognitive frames tend to imply culturally shared meaning, or the 'mental organization of the social environment' (Beckert, 2010:610); they may act as filters that make the difference between objective reality and perceived reality.

**Institutions**: are systems of rules, whether formal (dictated and enforced by the state) or informal (including social norms and prevalent behavioural patterns, that may e.g. be shaped by tradition and culture). They imply a more vertical/hierarchical perspective. Institutions tend to be interpreted as the cumulative outcome of slow-moving processes, so they are likely to incorporate past cognitive frames.

Together, the three types of social forces are likely to characterize most of the aspects that make up the *context* in which individuals live. Within Sen's framework, in fact, institutions, cognitive frames and networks can be conceived of as collective endowments on one hand: this implies seeing social structures as publicollective resources that individuals can use [beside private resources] for their desired life achievements. On the other hand, social structures - which potentially activate or reinforce other structures - play a key role as conversion factors, able to somehow affect the rate (efficiency) with which an individual is able to convert tangible and intangible resources into desirable outcomes. Their identification and measurement is therefore understood to be crucial for any empirical investigation trying to implement the CRESSI framework of analysis in practice.

### 4.1. Networks

**Networks between structures and agency**:

Networks, intended as non-casual groupings of individuals - represent the *materiality* of what is social (for both Mann and Beckert) and they are likely to provide the critical mass necessary for collective action. Networks are further the meta-structure within which participation, encounter and exchange between individuals take place. This is where common values and perspectives can evolve more easily. Within networks, common experience that promotes a common horizon in terms of expectations, beliefs and cognitive frames can happen.

Further, networks are themselves likely to be highly informative on existing power structures. Analysing the position of individuals within networks might be a way to detect advantageous positions and marginalized individuals/groups on one hand, but also the ability of social innovation processes to reach out to the marginalized: "the structure of social relations and
the positioning of actors within the network influence who can be reached by the new ideas and worldviews" (Beckert, 2010:619). Marginalized individuals and groups are likely not to be part of relevant networks, or to play a strategically inferior role within them.

Networks are therefore a promising object of study as they resemble the way that individuals aggregate to become the 'social'. In this aggregative process, existing power structures are likely to emerge and to be linkable with the direction of change that the group decides to pursue.

**BOX 9: Networks and decision-making**

Social interactions are the vehicle through which social norms and informal institutions influence individual decision-making. By interacting with others, individuals are subject to informational cascades (Bikhchandani et al. 1992), develop interdependent preferences (Postlewaite 1998) and assume herding behaviour (Banerjee 1992; Manski 1993) which can significantly shift a person's believes and parameters of choice. Social interaction promotes imitation and, possibly, innovation: a new social behaviour is observed on a peer, perceived as optimal, and imitated in disrespect of previous norms or habits (Conlisk 1980 in Manski 1993).

Just like the other social structures, however, networks are also subject to existing power relations. Therefore, the participation in a network might not automatically foster achievements for everybody. It might perpetuate or increase inequalities within a society or even trace new lines of exclusion where individuals are stuck in tight social bonds that inhibit their upward mobility or if networks are used to promote the exclusion of others (Portes 1998, Lin 2001 in Platt 2006). Bourdieu's (1997) interpretation of social capital underlines the “maintenance of networks for individual advantage and retention of privileged social position” (in Platt 2006:1). Similarly, in Putnam’s view (1993), social ties can be bonding, implying within-community stability or bridging, when they are more connected to upward mobility per se. Trust, cohesion and participation might indeed be used to reproduce advantageous positions and overall inequality. Within systems in which structuring processes take place, advantageous positions might be realized on the costs of others, causing marginalization of those located in less advantageous positions at the start.

[Adapted from von Jacobi, 2014b]

Again, *time* appears to be a crucial factor if we want to observe how networks promote inclusion or reproduce marginalization. We can expect networks to play a crucial role for the transmission of information and therefore for accessibility of knowledge and of opportunities. If networks are also the *place of enforcement* of social norms then we can expect them to have a more restrictive influence on some individuals and less on others. In a third stance, networks are also likely to be the realm in which power structures are consolidated or reproduced. Reputation and social status, for example, can only be maintained or lost within a group, and therefore have an intrinsically relational ontology.

**4.1.1. Networks in which Social Innovators are Embedded**

For the empirical analysis of social innovation processes, the investigation of networks is relevant at two different levels. On one hand, the bonds and strategic position of social
innovators that promote the action is of interest: is the innovating driver located at a more centralized or more marginal position with respect to existing power structures? Social innovators may be people with a consolidated relational capital (sometimes called private social capital), for example if they are befriended with local politicians or the local entrepreneurial core. On the other hand, a social innovation may emerge from and within an already quite cohesive network in which people with similar interests and characteristics tend to interact and exchange. The differences in “connections” between social innovators and their surrounding social reality may play a crucial role for the degree of involvement of marginalized individuals. It may also significantly condition the degree of relevance of the action for reducing marginalization, although it may not ex ante be clear which type of network set-up could be more promising in this sense: closeness to power centres may imply greater impact, on the other hand it may also require compromises in action which reduce the autonomy and active involvement of marginalized people.

**BOX 10: Institutional Mapping and Ego-centred Networks**

One way to collect information about personal networks of social innovators is to ask them directly: who did you collaborate with when setting up this social innovation? Who do you communicate with? With which frequency? Who do you consult for important decisions? These are qualitative and open questions, which allow the social innovator to respond by reporting her own personal experience. This type of data collection process may be partially structured by the interviewer, if for example certain categories of actors in the network are defined ex-ante, such as public sector entities, private sector actors, organisms of the civil society, etc. The typology and level of detail can be adapted to the specificities of the case and the research interest. Additional information can be collected for each actor (node in the network) that the social innovator reports to be in contact with, and for each connection (edge in the network): e.g. since how long the contact has existed, whether it has changed throughout the process, etc.

The result of such an exercise is an ego-centred network, or a map of private social capital that is relevant for the social innovation process of a specific social innovator. Of course, such a network is a subjective and partial representation of reality: for example, a social innovator may claim to be in touch with another actor, but without interrogating the counterpart it is not possible to assure that the contact exists and actually features the claimed characteristics. Further, the network is partial, because it does not include all those connections that run between other actors that do not automatically involve the interviewed person. So the picture obtained through such an exercise is functional for some purposes but not for all: it may allow us to derive the extent, diversification and quality of a personal network. On the other hand, we may not be able to properly apply some network statistics, such as closeness centrality, betweenness centrality or eigenvector centrality.

**4.1.2. Networks in which Beneficiaries are Embedded**

Given the relevance of networks in shaping the type of information, behavioural patterns and opportunities through relations for single individuals, they constitute an important information about beneficiaries, too. Which are the type of contacts that marginalized individuals have access to? How many contacts, of how many different types, of which quality, and again: do marginalized individuals mostly cluster together with their peers or do they have the opportunity to meet and interact with individuals from the middle or the higher
class? Is there any sort of particular characteristic (like the type of job, or a personal interest) that tends to shape their networks? Understanding through which mechanisms the social materiality of marginalized individuals is made of can also provide crucial information on how to kick-start inclusive processes. Observing changes in networks may further represent a first important result of the social innovation process in reducing marginalization. To get a complete picture of the degree of marginalization within a local network, a complete network data collection would be necessary, implying that the network is objectively reconstructed by interrogating each single node of the network and by testing each claimed edge from both sides of it. This is rather costly and generally difficult to implement unless the context of data collection is a small and somehow isolated social reality (for example, network data collections have been implemented in small villages in rural Africa). In non-isolated realities it is difficult to precisely delimitate the boundaries of the network under analysis: not properly capturing the boundaries of a network, however, implies that a series of network statistics may not be reliable.

**BOX 11: Partial Network Recognition**

A more parsimonious way to collect information about social networks does not attempt to capture and describe the entire network but merely gathers information on a subset of contacts that interviewed individuals report: imagine being asked *"apart from your family, who are the five persons you would go to in order to ask for advice?"* These types of questioning collect information about a subset of the network, because the cut-off point of indicating five contacts may not correspond to the true pool of friends/trusted relations that a person can actually rely on. Although the cut-off point of five may further be regarded as trivial, previous research has deduced that even when asked freely to indicate as many persons as they wish, the mode of replies rotates around four or five contacts (Jing et al., 2015). Through such a technique, we are again depicting a partial network, because the respondent may select out some contacts to give preference to others. On the other hand, such techniques often allow for a double-check (controlling whether the edge is indeed shared consciously by both nodes. A further advantage of this partial network mapping is that it allows to qualify the network along some specific thematic lines, e.g. imagine asking *who do you ask for advice when having to decide something on your job, or who do you trust when you want to discuss emerging political issues, or who do you talk to when having problems with your family?* The questions proposed all rotate around trusted/friendship-based relations, but of course a different "scent" may be given to these networks, e.g. by interrogating about most reliable suppliers, or about most easily accessible credit channels, etc.

### 4.2. Cognitive Frames

Cognitive frames play a fundamental role but are difficult to measure: they are intangible, implying that no objective and clear observation of them is possible. They refer to the mind-frames of people: their beliefs, their perceptions. Cognitive frames may therefore stand as a rough and fuzzy concept that combines different stimuli that move people's thoughts: predominant behaviours they observe, opinions and interpretations that are diffused by different media, their upbringing and socialization process, which may be densely intertwined with value-systems and cultural beliefs. We can assume that the exact combination of these different influences is highly personal and - most likely - impossible to perfectly untwine. Yet, the alchemy that sets up cognitive frames cannot be ignored: if cognitive frames did not
play a relevant role for social processes, objective analysis would have been able to perfectly
describe all factors of change, progress and development in human societies. Social science is
far from having achieved such goal, one of the reasons being that social processes are
drenched with intangible aspects and with subjectivity, which is hard to capture in data.
Cognitive frames therefore represent a challenging terrain of study, which may however
disclose insights on factors of change on one side, and on heterogeneity of their results on the
other: in virtue of its subjective nature, the translation of facts into perception is highly
heterogeneous between different individuals.

4.2.1. Identifying Relevant Cognitive Frames

If cognitive frames result from the complex alchemy of different stimuli, how shall we
identify those that are relevant for the specific social innovation process under analysis?
Local entrepreneurial spirit may be a major driver of innovation processes; for example, just
as prevalent discrimination patterns may hamper attempts of inclusion of some marginalized
groups. Further, the respect and enforcement of existing rules or norms may again be
mediated by prevalent beliefs and attitudes (e.g. tax evasion or mutual agreements to
disregard licence requirements, etc.). In this sense we can expect cognitive frames to interact
with networks - e.g. co-shaping which individuals access or exit certain network formations -
and with institutions - e.g. by co-determining which systems of rules have greater practical
relevance in everyday life.

On the other hand, we can also expect cognitive frames to potentially contribute to the
reduction or increase of marginalization in as much as discriminatory social processes may be
grounded in existing perceptions and beliefs: certain groups may actually be (more)
marginalized in places in which certain cognitive frames are prevalent. On the other hand, the
driving motor of social innovation, the desire to tackle some social need may also be
grounded on particular cognitive frames: think about the global waves of awareness on
human rights, human development, ecological fragility, sustainability and resilience. These
processes co-shape the goals of social innovation processes themselves.

We can therefore assume that different cognitive frames, driven by different types of stimuli
may be relevant at different stages and levels of the social innovation process. Yet it is ex-
ante difficult to define which cognitive frames actually matter. The previous section (2.3.3)
on data collection methodologies has hinted, that where the terrain is unexplored we may
need more thick description, more exploratory approaches, more open interviews. On the
other hand, the heterogeneous nature of cognitive frames also calls for statistical
investigations in which representativeness of different population groups can be accounted
for. It may therefore be proper to apply quantitative data collection tools to the analysis of
cognitive frames, after all.

4.2.2. Combining Quantitative and Qualitative Methods

A fruitful approach to the analysis of cognitive frames may be the combination of qualitative
and quantitative techniques. An exploratory, more qualitative phase in which social
innovators are interviewed may provide an overview of those cognitive frames that actually
play a role for:
i) the goals pursued by the specific social innovation;
ii) the implementation processes chosen;
iii) the drivers of marginalization that the social innovation is dealing with;
iv) the mechanisms through which network formation is being mediated;
v) the institutions that play a role for the activation, implementation and success of the social innovation process.

Once explored and recognized those cognitive frames that are likely to play a role, more detailed - even more structured - questions may be formulated in a questionnaire to be submitted to beneficiaries and target populations whose mental frames matter. Through such a 'cascade' effect it is possible to capitalize the in-depth knowledge and experience of social innovators, while a wider-ranging data collection through questionnaires may provide the statistical representativeness that allows us to get a better understanding of the heterogeneity of cognitive frames, and how they distribute among target populations.

Given that a quantitative approach may be possible and desirable, a whole range of difficulties apply, which have to do with the highly subjective and intangible nature of cognitive frames (see section 3.1.5 on subjective data collection, anchoring and vignettes). Therefore, it might be hard (though not impossible) to measure cognitive frames after all.

**BOX 12: A way to measure cognitive frames**

The method of Factorial Surveys allows examining the cognitive activity of individuals. Specifically, it explores the individual judgements and what determines these judgements. This method consists of asking the respondents to judge hypothetical descriptions of individuals or social status (Wallander and Molander, 2014) and to emit a judgement. To the interviewees, the hypothetical descriptions are presented in the form of vignettes. These vignettes describe different combinations of several dimensions/variables that frame the case, which here refer to likely determinants of the judgement. The idea is that an individual judges the situation by means of certain information available, e.g. the particular values that certain dimensions/variables depicted in the vignettes assume. For example, in a study carried out in order to study social care professionals and their ability to recognize and assess abuse, the vignettes include twelve dimensions, such as age, career factor, and prevalent behaviour of the victim (Killick and Taylor, 2012). Each dimension can assume different levels, for example, the possible options within the behaviour dimension are: "is placid", "is demanding", "is aggressive", and "is often violent". All possible combinations of these dimensions represent the “vignette universe” (Wallander et al., 2014:7). A sample of these vignettes, selected using means of a random or a quota sampling design, is submitted to the respondents (see Wallander et al., 2014:7).

The results of the factorial survey are then analyzed comparing two alternative methods: the multiple regression analysis and the multilevel extension of regression analysis. According to the authors, the latter presents some advantages since the dataset is hierarchically structured because the respondents evaluate multiple vignettes.

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25 For example, in the study of Killick and Taylor (2012), the vignette universe involves 10,485,760 vignettes, yet each respondent evaluates only 12 vignettes.
4.3. Institutions

Institutions are a widely used notion, although their exact meaning remains often unclear: do institutions comprise policies, constitutions and organizations? How institutions should be defined has been the object of a wide-ranging literature, yet the discussion is still open. For now we shall adapt the definition proposed by the World Interdisciplinary Network for Institutional Research\(^26\): institutions are systems of established social rules. This definition contains elements of many other proposals such as for example by Nobel Prize Winner Douglas North (1990)\(^27\) or Pranab Bardhan. Institutions are the outcomes of a social process and they tend to be associated with the provision of order, so they contribute to predictability. Aim of institutions tends to be the proposal of certain behaviours over others, in the attempt to disincentive those behaviours that may be disruptive of the existing social order.

Institutions therefore comprise a large variety of rules: they can be formal or informal. Formal institutions can be defined in different ways, but a simple rule of thumb is to check whether they are enforced by the state, which usually is equivalent to stating that they are written. Informal rules on the other hand tend to be enforced within certain social groups and may not be written at all. The role of institutions for economic development, change and social progress has increasingly been stressed by the slogan that “institutions matter”, up to the point that institutions are now considered to be factors of development that are more important than geography. Yet, institutions themselves are the outcomes of long-term social progresses; they result from a syncretic process in which elements of history, geography and culture are all integrated: "Institutions are like coral reefs that grow by slow accretions” (Sait, 1938).

Measuring and analysing institutions therefore represents a significant challenge as: formal institutions might assume a certain form de jure, but their actual implementation - so their de facto shape - may look very different. The factual enforcement of formal institutions may be mediated by informal institutions, which may be complementary or substitutive; in harmony or in contrast (see Voigt, 2013).

For the analysis of social innovation, the analysis of institutions is crucial, as they provide the possible terrain of action: by favouring certain behaviours over others, institutions tend to delimitate which activities are possible. A further interesting scope of analysis when dealing with institutions is the understanding of how they relate to policies, which indeed may have very direct and immediate implications for social innovation processes. Policies are not to be understood as synonymous to institutions, yet their connection is deeply intertwined:

Take Figure 7 below: policies are formulated within institutional landscapes, which therefore shape the content and feasibility of newly formulated policies. On the other hand, each policy contributes to altering the institutional landscape, by introducing new rules: therefore, institutions can be considered the cumulative outcome of policies, but the entire process is

\(^26\) See WINIR: http://winir.org/?page=about
\(^27\) According to North (1990), institutions are “the rule of the game”. He defends an individualistic interpretation, implying that institutions matter in the way they shape individual behaviour: his definition of institutions further focuses on implicit constraints, beyond formal rules and enforcement mechanisms, which all co-determine the effect of an institution on individual behaviour. Among implicit rules he considers taboos, customs, traditions, codes of conduct, routines, conventions, etc. (North, 1990). For a typology of such internal/implicit rules, see Voigt (2013).
path-dependent, with policies shaping institutions but being dependent on the institutional starting-point anyway (see Rodrik et al. 2004). Policies, however, are not the only factor influencing institutional change: external factors may make a huge difference. Think about the globalization wave during the 1980s and 1990s that has exerted increasing pressure on many countries' trade and financial institutions, or the legislative action of the European Union, which introduces new rules into countries with very differentiated institutional backgrounds.
4.3.1. Different Types of Institutions

As anticipated, institutions may take on a very different shape: they can be formal or informal, they may apply to an entire country (e.g. the Constitution) or to single groups (e.g. ethical or religious norms of a minority). Sometimes we refer to rather fuzzy institutional concepts such as ‘the rule of law’ or ‘judicial independence’, but these imply a large number of more precise institutions (e.g. Shirley, 2005; Pande and Udry, 2006; von Jacobi 2014a). Therefore, in analysing institutions it is preferable to go into the details and to refer to specific institutions. Any specific institution may further assume two different forms, a de jure one and a de facto one (very simplistically, think of tax evasion as drawing the line between the de jure and de facto tax collection). To get a grasp of de facto versions of institutions, it may be necessary to study the behaviour and success of those that are enforcing the rule (Voigt, 2013). The enforcement mechanism, therefore, often represents the difference factor between de facto and de jure versions of institutions. Enforcement may be directly (Woodruff 2006) or indirectly (North 1990) be associated to informal rules: if social rules for example foresee the protection of the family as the major scope in life, the state and its (extractive) institutions (e.g. taxes) may be considered to be a threat to family activity and survival. Therefore, the de jure tax imposition may significantly be reduced de facto because of common - and largely socially accepted - tax evasion habits.

Institutions may further be distinguished according to the thematic area their rules tend to regulate: economic institutions tend to shape the behaviour of actors on the market, while political institutions delimit the feasible actions of different power groups and through this co-determine the existing balance of powers. It is however utopic to consider one institution...
in complete isolation of the other, as can intuitively been guessed: as far as each institution contributes to the preferable behaviour adopted by individuals, they are all inter-dependent to some extent.\textsuperscript{28}

For social innovation processes, the presence of different institutions is likely to play a role: formal institutions (mainly economic, but also political) may set the scenery within which social innovation actions can be conceived (formally, at least). They are likely to co-shape the power structures that may find material resemblance for example in the way networks shape (think about professional associations as an example) or in the way marginalization manifests (the collateral to credit is an example of an institution that tends to characterize some elements of marginalization, e.g. of those small entrepreneurs that without credit are not able to achieve satisfactory production and revenue levels.) Further, institutions can be considered as distinguished from cognitive frames by a rather thin line: especially when informal institutions (or North's implicit constraints) are taken into consideration, the overlapping between unwritten norms and cognitive frames may be large. In fact, cognitive frames are thought to include the perception of institutions (Beckert, 2010), which is not very different from the arguments made so far that de facto effectiveness of institutions may be significantly different from their de jure version and that this may be assigned to different implicit constraints or informal rules that concur with the formal institution. So institutions are entangled with the other social forces: cognitive frames and networks, as stated by Beckert. In their regulating ability (or inability, or complete absence) institutions contribute to the tension between social forces, which are thought to open up new spaces for social innovation (see D.1.1 and D.1.3 of the CRESSI project\textsuperscript{29}).

4.3.2. Identifying Relevant Institutions

Which types of institutions are likely to play a role for social innovation processes? In a similar fashion to cognitive frames (see previous sections), which institutions actually matter for a particular social innovation process, depends on the specific case. For empirical purposes, a general rule of thumb is that it seems better to focus on actual laws, rules, and compliance procedures instead of referring to wider-ranging concepts such as 'rule of law' or similar. This allows on one hand to get a better understanding on which particular institutional elements are fostering or hampering social innovation and may further provide more interesting information for a policy maker to manipulate elements, and therefore induce change after all.

Another important consideration for identifying relevant institutions is timing: for how long has the institution been in place? Since which point in time is the de facto compliance relevant? Some rules may require time in order to become effective, just as a one-time deviant behaviour may not be significant, compared to observing deviant behaviours over a number of periods.

Different difficulties therefore shape the quest to measuring institutions. A first attempt to

\textsuperscript{28} For an empirical analysis of interdependencies between different institutional and structural factors, see von Jacobi (2015).

\textsuperscript{29} CRESSI Project deliverables: D1.1 Report on Institutions, Social Innovation & System Dynamics from the Perspective of the Marginalised (submitted to the EC on 18 December 2015); and D1.3 Report Contrasting CRESSI’s Approach of Social Innovation with that of Neoclassical Economics (submitted to the EC on 28 February 2015). Also available as working papers on the CRESSI website at: http://www.sbs.ox.ac.uk/ideas-impact/cressi/cressi-publications
reduce uncertainty and to get a better grasp of actual laws, rules and compliance procedures could be the direct and exploratory investigation among social innovators: which institutions did they encounter in the effort to set up the social innovation process? Which existing rules or norms favoured their action, which ones represented an obstacle? Which institutions do not exist that they would need in order to scale their action? Such exploratory questions may help us produce a list of rules and of their enforcers that play a role for the specific case investigated. In gathering details about factual institutions, special attention may be paid to the behavior of the enforcers, including for example the police, prosecutors, judges, and prison staff, but also the press, lobby groups, and even the public at large often also act as enforcers (Voigt, 2013).

When interrogating social innovators about institutions, the interviewer should make sure that they know about (a) the content of the rule, which implies the ability to judge whether certain behaviour is complying or not with the rule (b) the sanctions implied by deviant behaviour. In order to properly classify institutions as formal or informal, it would further be helpful to extrapolate from the interview who is enforcing the rule (the state or some social groups, autonomously). In order to 'clean' observations about institutions as much as possible from subjective perceptions, it is advisable to collect detailed information about laws, codes, etc. in order to permit an objective evaluation on behalf of the data collector.

4.3.3. Perceived Effect of Institutions

In a similar fashion to cognitive frames, the combination of qualitative and quantitative approaches to data collection may represent an advantage: the identification of specific institutions that may play a role for the social innovation process should occur through explorative, hence qualitative, interviews with social innovators. Beyond their mere identification, it is possible to extrapolate partially standardized information during such interviews, e.g. by insisting on how long the institution has been in place, or on who enforces its compliance, or by interrogating the social innovator with which frequency the specific institution shapes their activity (e.g. daily, monthly, etc.) in order to get a better grasp of relevance and reach of each specific rule under analysis.

Once compiled a sort of 'list' of relevant institutions, it may be interesting to check for compliance and perception of these among a greater public. Specific questions may therefore be inserted into more structured questionnaires in which beneficiaries or other target populations are confronted with the content of a specific institution, their perception of their relevance and validity and their personal compliance behaviour. This may again provide statistically significant empirical evidence on de facto effectiveness of an institution and on heterogeneity in complying with its prescriptions.

The cascade effect proposed for both, the recognition of cognitive frames and of institutions represents a mixed-methods approach in which the strengths of qualitative and quantitative data collections mutually reinforce each other. The subsequent tables summarize which type of information may be collected with the different methodological approaches and how the cascade effect can help in measuring social forces such as cognitive frames and institutions.
<table>
<thead>
<tr>
<th>COGNITIVE FRAMES</th>
<th>INSTITUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exploratory Phase: qualitative data collection tools, e.g. interviews with social innovators</strong></td>
<td></td>
</tr>
<tr>
<td>identification of a list of forces that influence goals, implementation process of the social innovation</td>
<td>influence feasibility and implementation process of the social innovation</td>
</tr>
<tr>
<td>identification of individual and collective behaviours that are affected by presence or absence of certain CFs</td>
<td>by presence or absence of certain INST</td>
</tr>
<tr>
<td>qualifying the typology conscious or subconscious application of CFs</td>
<td>formal or informal rules/de jure or de facto implementation</td>
</tr>
<tr>
<td>base of enforcement the particular CF is shared predominantly by which type of actors/people?</td>
<td>the particular INST is enforced predominantly by which type of actors/people?</td>
</tr>
<tr>
<td>area of life affected by the content of CF</td>
<td>by the regulating content of INST</td>
</tr>
<tr>
<td>interlinkages relates to other CFs or INSTs: which ones? Are linkages complementary or substitutive?</td>
<td>relates to other INSTs or CFs: which ones? Are linkages complementary or substitutive?</td>
</tr>
<tr>
<td>duration how long has the CF played a role?</td>
<td>how long has the INST been in place?</td>
</tr>
<tr>
<td>frequency how frequent does the social innovation process deal with the particular CF?</td>
<td>how frequent does the social innovation process deal with the particular INST?</td>
</tr>
<tr>
<td>relevance which groups remain outside of the CF/are not touched by its content?</td>
<td>which groups does the INST not apply to/remain outside of its regulating content?</td>
</tr>
<tr>
<td>influence on NTWK formation through which mechanisms? which group affiliations are favoured?</td>
<td></td>
</tr>
<tr>
<td>COGNITIVE FRAMES</td>
<td>INSTITUTIONS</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Confirmatory Phase: quantitative data collection tools, e.g. questionnaires to single beneficiaries</td>
<td></td>
</tr>
<tr>
<td>For each .... of the list:</td>
<td>CF</td>
</tr>
<tr>
<td>recognition</td>
<td>do you know the CF?</td>
</tr>
<tr>
<td>relevance</td>
<td>how often does this CF affect your life?</td>
</tr>
<tr>
<td>perception</td>
<td>do you assess this CF as helpful for achieving your goals (along a range)?</td>
</tr>
<tr>
<td>reach</td>
<td>among 10 people that come to your mind, how many of them share this CF with you?</td>
</tr>
<tr>
<td>breach</td>
<td>have you ever acted against this CF? How often?</td>
</tr>
<tr>
<td>enforcement</td>
<td>Who comes after you if you disregard this CF?</td>
</tr>
</tbody>
</table>
5. Glossary

Agency\(^{30}\):

Sen defines agency as the ability to pursue goals that one values and has reason to value. An agent is “someone who acts and brings about change, and whose achievements can be judged in terms of her own values and objectives, whether or not we assess them in terms of some external criteria as well” (Sen 1999:19). Agency enables people to expand their freedoms and “[freedom] is also a principal determinant of individual initiative and social effectiveness.” (Sen 1999:18). Thus freedoms and agency are mutually enhancing components of development: greater freedom enhances the ability of people to be agents, while agency also enables people to demand and achieve further freedoms allowing them to contribute both to their own development and to that of their community.

Capability\(^{32}\):

A capability is the answer to the question: “What is this person able to do and to be?” (Nussbaum 2011:20) Capabilities represent the practically possible opportunities that the person has to realize valuable doings and beings in her daily life. A person’s capability is made up by the combined interaction of internal and external factors. These include a person’s internal endowments such as biology, knowledge and skills as well as the external features including social, material and environmental factors.

Capability Set\(^{33}\):

A capability set is the “basket” of capabilities among which the individual can choose to realize outcomes. Some frequently used examples of capabilities include the opportunity/possibility of being able to live a long and healthy life, being able to become educated or well-nourished; being able to participate in valued productive activities; not feeling ashamed in public and interacting as an equal social member; and being able to express one’s political preferences (Nussbaum 2000, 2011)\(^{34}\). All these capabilities are seen to be valuable dimensions of a good life.

Cognitive frames:

Cognitive frames refer to the mind-frames of people: their beliefs and mental structures, which affect their perception of reality.

\(^{30}\)Source: Chiappero and von Jacobi, 2014.

\(^{31}\)The opposite of a person with agency is someone who is forced, oppressed or passive (Alkire 2002, Alkire and Deneulin, 2009).

\(^{32}\)Source: Chiappero and von Jacobi, 2014.

\(^{33}\)Source: Chiappero and von Jacobi, 2014.

\(^{34}\)Nussbaum (2011) distinguishes further three different notions of capabilities, namely basic, internal and combined capabilities.
Conversion factors:

Conversion factors reflect people’s different personal, social and environmental characteristics which affect – either in a positive or a negative sense – their ability to effectively access and convert their endowments and external conditions into effective capabilities.

Endowments:

Endowments or means are the amount (and quality) of resources available to the individual. They include private means (income, wealth, physical assets), public goods and services, which are all instrumental to creating capabilities.

Empowerment:

Empowerment is related to term such as agency, autonomy, self-determination, self-confidence, mobilization; it can be conceived as capacity to control one’s own life and destiny. Following the capability literature we will refer to empowerment in terms of expansion of individual agency.

Evaluative Space:

The evaluative space relates directly to our conceptions of what is good, what is improving, what is bad or deteriorating. "In an evaluative exercise, we can distinguish between two different questions: (1) What are the objects of value? (2) How valuable are the respective objects? Even though formally the former question is an elementary aspect of the latter (in the sense that the objects of value are those that have positive weights), nevertheless the identification of the objects of value is substantively the primary exercise which makes it possible to pursue the second question" (Sen, 1993: ch3). The identification of the objects of value specifies what may be called an evaluative space. In standard utilitarian analysis, for example, the evaluative space consists of the individual utilities (defined in the usual terms of pleasures, happiness, or desire fulfilment).

Functionings:

Functionings are the realizations of capabilities into end achievements – the valued “beings and doings” – that an individual has chosen to pursue. Examples of functionings could be living a long life without impairments, becoming educated; becoming well-nourished;

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35 Source: Chiappero and von Jacobi, 2014.
36 Source: Chiappero and von Jacobi, 2014.
37 Source: Ibrahim and Alkire, 2007
participating in valued productive activities; not feeling ashamed in public, and expressing one’s political preferences such as actually voting.

**Institutions:**

Institutions are systems of rules, whether formal (dictated and enforced by the state) or informal (including social norms and prevalent behavioural patterns, that may e.g. be shaped by tradition and culture).

**Marginalization**

Marginalization is a *social process* through which *personal traits* are transformed into *potential factors of disadvantage*. The potential disadvantage may be confirmed and therefore empirically detectable in the form of inequalities. Yet, individual action - in combination with other social factors - might compensate the potential disadvantage, and therefore lead to a condition in which the disadvantage is not empirically confirmed.

**Networks:**

Networks are social structures that exist between and are constituted by interconnected actors, which may be e.g. individuals, organizations or firms. They are intended as non-casual groupings of individuals.

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39 Source: Chiappero and von Jacobi, 2014.
6. References / Reading List

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Chiappero-Martinetti, E. and von Jacobi, N. (2014). Relating Sen to CRESSI, CRESSI internal note, June 2014. Further elaboration of this text can be found in the CRESSI deliverable D1.1.

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Absolute and Relative Distance:


Agency and how to measure it:


**Dashboard or Composite Approach:**


Measuring Social Forces:

Anheir, H.K. et al. (2014), Social Innovation as Impact of the Third Sector, Del. 1.1. of ITTSSOIN - Impact of the Third Sector as Social innovation Project (FP7).


**Qualitative Research Methods:**


**Social Innovation Measurement:**


**Subjective versus Objective Evaluation:**


The CRESSI project explores the economic underpinnings of social innovation with a particular focus on how policy and practice can enhance the lives of the most marginalized and disempowered citizens in society.

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