

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 837498.



SONNET - SOCIAL INNOVATION IN ENERGY TRANSITIONS

Co-creating a rich understanding of the diversity, processes, contributions, success and future potentials of social innovation in the energy sector

Methodological guidelines for case study analysis

Project Coordinator: Fraunhofer ISI (Karoline Rogge)

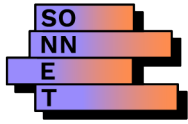
Work Package: WP3

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Version: 1.0

April 2020



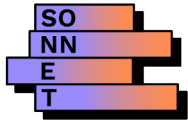
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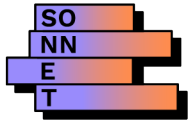
Funding type: RIA

Deliverable number (relative in WP)	D3.1
Deliverable name:	Methodological guidelines for case study analysis
WP / WP number:	WP3: Case studies: In-depth case studies of the diversity, processes and contributions of SIE-initiatives
Delivery due date:	31/03/2020 (extension by one month granted)
Actual date of submission:	30/04/2020
Dissemination level:	Public
Lead beneficiary:	SPRU, University of Sussex
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2	Dutch Research Institute for Transitions	DRIFT	NL	
3	University of Sussex, with its Science Policy Research Unit (SPRU)	UoS	UK	
4	Grenoble Ecole de Management	GEM	FR	
5	Akademia Leona ALKminskiego	ALK	PL	
6	Zuercher Hochschule for Applied Research	ZHAW	CH	<small>Zürcher Hochschule für Angewandte Wissenschaften</small>
7	ICLEI European Secretariat	ICLEI	DE	
8	City of Mannheim	MANN	GER	
9	City of Antwerp	ANTW	BE	
10	City of Bristol	BRIS	UK	
11	City of Grenoble	GREN	FR	
12	City of Warsaw	WARS	PL	
13	City of Basel (Associated Partner)	BASE	CH	



Executive Summary

SONNET (Social Innovation in Energy Transitions) aims to co-create a rich understanding of the diversity, processes, contributions, successes and future potentials of social innovation in the energy sector (SIE). This deliverable addresses SONNET's objective 2 (and contributing to objective 1 and 3), namely, to identify and analyse enabling and impeding factors for SIE processes. It provides a joint research protocol for the case studies.

In SONNET, we aim to make use of a multiple, embedded case study approach, building a better understanding of SIE-fields using diverse units of analysis. The main unit of analysis is the SIE-field, whereas the subunits of analysis are made up of the SIE, different SIE-field-actors (who work on) and other field-actors (who enable and impede SIE). The context relates to wider socio-political, social-economic and socio-cultural issues linked to these actors and SIE-field.

This deliverable includes:

- Guidance on roles, responsibilities and resource allocations within the work package.
- A brief summary of the key concepts relevant for WP3 and empirical research questions.
- An outline of SONNET's embedded, multiple case study approach.
- Guiding principles on SONNET's understanding of ethical research practice.
- Procedures for conducting data collection and analysis, including sections on, for instance, the depth of the research, informed consent procedures and data storage information.
- A draft template for the preparation of country reports, including a structure for the embedded case studies.
- An introduction to the comparative meta-analysis of the case studies across the six SONNET countries.
- The work plan and key dates.

The Annex also includes:

- Topic guide for the in-depth interviews and a guide for participants observation.
- Excel-templates to keep track of the fieldwork.
- Supporting documentations and templates for the ethical procedures for use during the fieldwork (e.g. consent form, information sheet and debriefing sheet).

The deliverable aims at ensuring standards of validity, comparability, generalisability and replicability with respect to the case studies and will inform all publications that report on them.

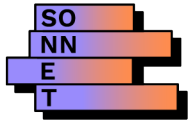
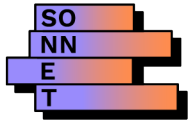
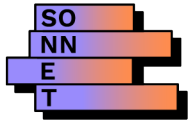


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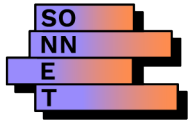


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1 INTRODUCTION

SONNET aims to co-create a rich inter- and transdisciplinary understanding of the diversity, processes (including enabling and impeding factors) and contributions of SIE (social innovation in the energy sector). This report works towards fulfilling SONNET’s objective 2, namely, to identify and analyse enabling and impeding factors for SIE processes. The report outlines the methodology to be followed by WP3 case studies, which will contribute most strongly to the achievement of this objective. Nonetheless, they will also contribute towards objectives 1 and 3 through links to all the other work packages (but especially complementing WPs 2 and 6 and providing input for WPs 1 and 5).

The overall approach adopted within this work package and deliverable is a multiple, embedded case study approach. The case studies will be presented as a series of six national country reports, one from each SONNET country. Each country report will contain documentation of three embedded case studies of SIE-fields set in their national context, giving a full set of 18 embedded case studies across all six SONNET countries. In these embedded case studies, 36 cases of SIE-initiatives are nested within the SIE-field investigations.

WP3 - Case studies

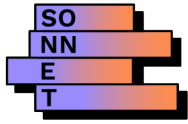
WP3 draws on the literature review (T1.1), the typology (T1.2) as well as the conceptual framework (T1.3) as a basis for its work. WP 3 complements the analyses conducted on collaborative governance arrangements (T2.1), policy networks (T2.2), power dynamics (T2.3), and informs the evaluation of policy making for SIE through its bottom up identification of the policies that are relevant for specific SIE types (T2.4). It provides input for distilling the SIE types with greatest potentials to be considered for inclusion in the quantitative survey of T5.1; informs the questionnaire design (T5.2) and links up with the goal alignment analysis (T6.2). Finally, the findings are fed into the inter- and transdisciplinary dialogue (T1.4), into the synthesis of cross-cutting issues (T1.5) and inform the revision of the conceptual framework and SIE typology (T1.6).

This deliverable provides a joint research strategy and procedures about how to study SIE-fields and is primarily directed at the researchers who conduct the embedded case studies (WP3) within SONNET.

Section 2 provides guidance on the more procedural matters within the work package, including how we plan to collaborate in order to deliver the work.

Section 3 provides a brief outline of the conceptual framing related to the case study work (for more information see deliverable D1.2) and outlines our empirical research questions.

Section 4 outlines the multiple, embedded case study approach, including guidance on the unit of analysis and boundaries of the SIE-field and presenting the selected case studies. In addition, guiding research principles and relations in the case studies are sketched out.



Section 5 provides guidance on data collection and analysis, including:

- Multiple methods used: document review, in-depth interviews, participant observation,
- Informed consent, participant information and debriefing procedures (including data management and storage),
- Depth of the research, and
- Data analysis: Embedded case studies and cross-analysis.

Section 6 provides a draft template for the preparation of country reports, including a structure for the embedded case studies.

Section 7 provides an introduction to the comparative meta-analysis of the embedded case studies across the six SONNET countries.

And finally, section 8 outlines the work plan and key dates.

Please also read the **Annex** that includes,

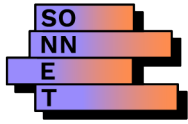
- The topic guide for the in-depth interviews and observation guidelines,
- Templates for keeping track of the fieldwork, and
- Ethics templates.

Please consider that WP3 researchers need to also collect some of the empirical data for WP2 and WP6 (with their own PM for this work), for which WP2 and WP6 leads will get in touch with the WP3 researchers. For WP2 this work focuses on policy and power dynamics in SIE-fields, while for WP6 it investigates the success of SIE-initiatives (see box below).

A quick reminder of the WP2 and WP6 aims (derived from the proposal)

WP2 - The aim of this work package is a comprehensive analysis of the socio-political issues through the three complementary lenses of governance arrangements, policy networks and power dynamics of relevance for SIE. It sheds specific light on influential but often neglected aspects of innovation in governance arrangements, conflict and coordination in policy networks and power dynamics associated with SIE. It contributes towards SONNET Objective 2; foregrounding the socio-political enabling and impeding factors as well as SONNET Objective 5 the design of socio-political strategies for encouraging SIE.

WP6 - The aim of work package is to evaluate and assess the success of SIE initiatives (analysed in WP3) to making energy more secure, sustainable, competitive, and affordable and to increase competitiveness and preserve livelihoods through their diverse socio-political, socio-cultural and socio-economic contributions (e.g. novel business model, governance arrangements or narratives). This WP contributes to SONNET Objective 3.



2 TEAM WORKING

In order to realise this deliverable, we will need to work together in a coordinated way. This section aims to clarify our different **roles and responsibilities** and provide a vision for how we will collaborate.

2.1 Who's who

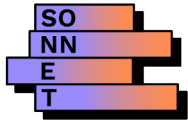
The tasks and deliverables outlined within this document are led by Sabine Hielscher (WP3 leader) at SPRU, UoS and co-led by Julia Wittmayer (WP3 co-leader) at DRIFT. There are a number of individuals across the partners who are collaborating on different aspects of the tasks, including data gathering and analysis (researchers), report-writing (authors), providing feedback on drafts (reviewers) and overall coordination of their country case study (coordinators). In many cases, the same individuals may adopt multiple roles. In order to be clear and consistent throughout the rest of this document, we propose to use the terms ***WP leaders, researchers and coordinators*** for referring to the core roles and responsibilities played by contributors to the work package.

The ***WP leaders*** are responsible for coordination of the six national case studies (including 18 embedded case studies). This includes responsibility for creating a small working group, organising and planning online calls, preparing WP3 sessions during project meetings, and for aligning content and progress with WP-leads, case study coordinators, case study researchers, as well as the leads of the cross-cutting themes. Moreover, they will coordinate the comparative meta-analysis.

Each ***researcher*** is responsible for delivering the embedded case study reports that they have been allocated (on time, fulfilling the quality standards, in the required template, delivered to their country *coordinator*).

Each ***coordinator*** is responsible for compiling the three embedded case studies within their country and producing a country report (D3.1), including a cross-analysis of three national case studies (on time, fulfilling the quality standards, in the required template, delivered to the WP-leader). Coordinators are also responsible for ensuring quality standards are met by the case study reports and country report and must ensure that the country report is ***quality-controlled by the corresponding SONNET city partner - i.e. the reviewers in Table 2 below***¹. They will also join the WP3 working group. Each coordinator should consider opportunities for developing blog posts and policy briefs from their country reports and case studies, as ways of disseminating early research findings to non-academic audiences in their country. You can get in touch with your city partner or with the SONNET disseminations partner for these possible outputs.

¹ Each ***reviewer*** is responsible for quality controlling the country report from their country. This is a chance to use any local knowledge of the case studies to 'sense-check' the way that they are represented, as well as an opportunity to provide constructive feedback on how the country reports might be adapted to increase their utility for yourselves and other policy and practitioner audiences of the research.

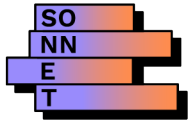


Besides the case study report, each *coordinator* is together with their fellow *researchers* responsible for:

- saving and storing the case study documentation on a secure institutional server (sound files from interviews, photographs, transcripts or extensive summaries of interviews in the native language of the interviewee, and other important documents) - please see the data management deliverable (D8.2) and two ethics deliverables (D9.1 & D9.2) on how to save and store personal and research data;
- developing an internal joint research protocol which the case coordinator and fellow case researchers (updated regularly during the research process), describing choice of interviewees, reflections on interviews conducted, omissions and additions of research questions, and so on - please create your own document;
- creating and updating an overview of data collection activities (see Annex 2), specifying who was interviewed i.e. role (not name), which events were attended and which primary and secondary sources were consulted, and uploading updated versions of this overview on your own institutional server and the SONNET cloud WP3 folder;
- making time for internal communication in WP3 (e.g. coordinators to participate in the WP3 working group) and organising communication within their national case study team;
- following the ethics procedures during the data collection as outlined in this document (section 5) and two ethics deliverables (D9.1 & D9.2).

Table 1 below indicates which individuals are associated with different roles and responsibilities in relation to the overall WP and each of the case studies

COUNTRY	PARTNER	INDIVIDUAL	ROLE(S)
UK	UoS	Sabine Hielscher	WP-lead Coordinator
	UoS	TBC	Researcher
	Bristol	Richard Lowe	Reviewer
NETHERLANDS	DRIFT	Julia Wittmayer	WP-co-lead Coordinator
	DRIFT	Maria Fraaije	Researcher
	Antwerp	Jana Deforche	Reviewer



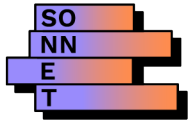
COUNTRY	PARTNER	INDIVIDUAL	ROLE(S)
POLAND	ALK	Agata Dembek	Coordinator
	ALK	Alicja Dańkowska	Researcher
	ALK	Marta Struminska	Researcher
	Warsaw	Dominik Kołodziejczyk	Reviewer
GERMANY	ISI	Karoline Rogge	Coordinator
	ISI	Maria Stadler	Researcher
	Mannheim	Sabrina Hoffmann	Reviewer
FRANCE	GEM	Anne-Lorene Vernay	Coordinator
	GEM	Adelie Ranville	Researcher
	Grenoble	Fabien Dupré	Reviewer
SWITZERLAND	ZHAW	Jörg Musiolik	Coordinator
	ZHAW	Benjamin Schmid	Researcher
	ZHAW	Devon Wemyss	Reviewer

2.2 Collaboration and communication

The internal cooperation in WP3 is based on dialogue within each country team, between the WP-leader and each country team, and across the country teams.

In addition to the joint overview of data collection activities and research protocol documents, **country teams** may therefore wish to consider setting up a **number of such joint living documents**, covering details of the items and types of data collected (interview notes and transcripts, documents derived from the document review and participant observation) as well as the research process (describing process of selecting interviewees and making use of the topic guide, etc.).

The WP-leader and WP-co-lead is available for discussing issues that arise during the research process, ad-hoc and informally. We will also work with intermediary deadlines and regular online calls to ensure the research is on track for all cases. For this, we have created a small working group where the coordinator of each national team joins the group. The WP-leader and WP-co-



lead will also independently contact the different case study research groups to find out how things are going and organise sessions at SONNET project meetings to facilitate mutual exchanges.

The aim of the **working group** is to facilitate discussions, organise feedback and comments, talk about the implementation of the methodological guidelines, and ensure the research is on track. **We aim to organise online calls roughly every one-two months**, but will place them strategically, acknowledging the restrictions and preferences of members as far as possible. These calls are likely to happen on Mondays between 14.00-15.30 CET.

We also recommend setting up **working groups between researchers that work on the same case study but in different country contexts**. It would be beneficial to collaborate on demarcating the boundaries of the case study and its unit of analysis. Moreover, it would be good to keep in touch during the fieldwork.

2.3 Resources

Person months (PM)* per participant for WP3 are as follows:

- WP lead SPRU: 13.5 months
- WP co-lead DRIFT: 8.5 months
- ISI: 7 months
- GEM, ALK, ZHAW: 5.5 months
- City partners: 0.5 months

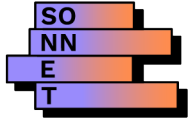
*One person month is usually equal to 17 working days.

There are additional resources allocated in WP3 for SPRU and DRIFT as WP coordinator and deputy WP lead.

These person months (PM) are allocated for three main tasks. First contributing to the methodological guidelines (D3.1) in task T3.1. SPRU, DRIFT and ISI are more heavily involved in developing the methodological guidelines and have therefore been allocated more person months for these activities.

Second, as part of task T3.2 partners conduct the case studies. On average, each **academic partner** has 5.0 person months to conduct and write up their three case studies, including presenting them within their country report. We would suggest allocating at least 0.5 person months for the comparative analysis of the cases and the write up of the respective country report, leaving on average 1.5 person months (or 25 days) per case for data collection, analysis and writing up of the individual case studies. The **city partners** have been allocated 0.5 months for reviewing the case study reports produced by their academic partners, but also for facilitating access to the SIE-field and other support for conducting the case study analysis. For the coordination of this task SPRU as WP lead has been allocated additional person months.

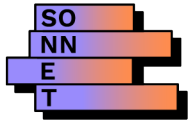
The meta-analysis in task T3.3 is jointly conducted by SPRU, DRIFT and ISI, with 3, 2 and 1 person months, respectively.



Apart from staff funding, each SONNET academic partner has a budget for travel and other costs (e.g. transcription of interviews, translation of material) to accommodate for fieldwork as part of the case studies. It is important to note that this budget is shared between WP2, WP3, WP4 and WP6. In detail, this includes:

- travel costs for researchers, covering also national travel associated with other WPs, particularly WP2 and WP4 (based on proximity to partner city):
 - 500 Euros ALK, GEM (directly located in Warsaw and Grenoble);
 - 1000 Euros DRIFT, ZHAW, ISI (covering moderate travel costs between Rotterdam and Antwerp, Zurich and Basel, and Karlsruhe and Mannheim);
 - 1500 Euros SPRU (covering greatest travel costs between Brighton and Bristol)
- other costs, particularly for transcribing interviews in WP2 and WP3:
 - 500 Euros for each academic partner

These figures are taken from the SONNET budget (see Excel table in the SONNET cloud).



3 CONCEPTS AND RESEARCH QUESTIONS

The aim of this section is to provide a description of how SONNET's *concepts and empirical research questions* guide this work package.

SONNET's overall aim is to generate novel understandings of the diversity, processes and contributions of social innovation in the energy sector (SIE), and critically evaluate and assess their success and future potential towards supporting sustainable transitions of energy systems. In WP3, we concentrate on studying the **diversity, processes and contributions**. However, the main focus will be on building an understanding of the 'processes'. As outlined in deliverable D1.2, these are our major research questions for WP3²:

- How do SIEs and SIE-fields emerge, develop and institutionalise over time?
- How do SIE-field-actors and other field-actors interact with the 'outside' institutional environment and thereby co-shape the SIE-field over time?
- What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the 'outside'³ institutional environment?⁴

For more information about SONNET's conceptual approach see deliverable D1.2. We recommend you carefully read this deliverable before conducting the case studies.

In the following section 4, we outline the case study approach and in section 5, we provide guidance on conducting the case studies.

3.1 Introduction to the three empirical foci

This section introduces three intertwined (and also distinct) empirical foci to be investigated in WP3 (including definitions of key concepts and visual conceptual maps). The foci are: 1) emergence, development and institutionalisation of SIE and SIE-field over time, 2) SIE-field-actors and other field-actors' interactions with the 'outside' institutional environment, and 3) Enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work. These foci are visualised in Figure 1 below (black = 'outside' institutional environment; blue = SIE-field and its SIE and actors; orange = change/ maintain processes).

In the following sub-sections, we introduce each of the three parts with short empirical narratives,

² These are revised deliverable D1.2 research questions for WP3.

³ Formal and informal institutions constitute the institutional environment. The SIE-field itself constitutes an environment (= SIE-field institutional environment) but also is nested with larger encompassing institutional environment (= outside institutional environment). The SIE-field and its institutional environment consist of institutions and actors who interact with each other. The 'outside' institutional environment consists of institutions that can 'penetrate' i.e. shape/ influence/ interact with the SIE-field.

⁴ The formulation of the question might imply that the SIE-field (including its actors) is homogenous in terms of goals and interests. However, fields (by definition) are very diverse and composed of actors who have diverse and even contradictory interests. In this sense, the issue of 'impeding and enabling' factors on the SIE-field level might be very complex. We need to keep this in mind.

conceptual working definitions, visual conceptual maps (i.e. Figures 2-4 focuses on particular parts of the investigation that come together in the overall visual conceptual map depicted in Figure 1), and a brief characterisation of the key aspects of the SIE-field that we will investigate in our case studies.

Some of the names for the conceptual terms (e.g. SIE-field-actor and ‘outside’ institutional environment) might not be ‘ideal’ yet. We still feel that we can work with them for now. We can think about more applicable ones later on in the project.

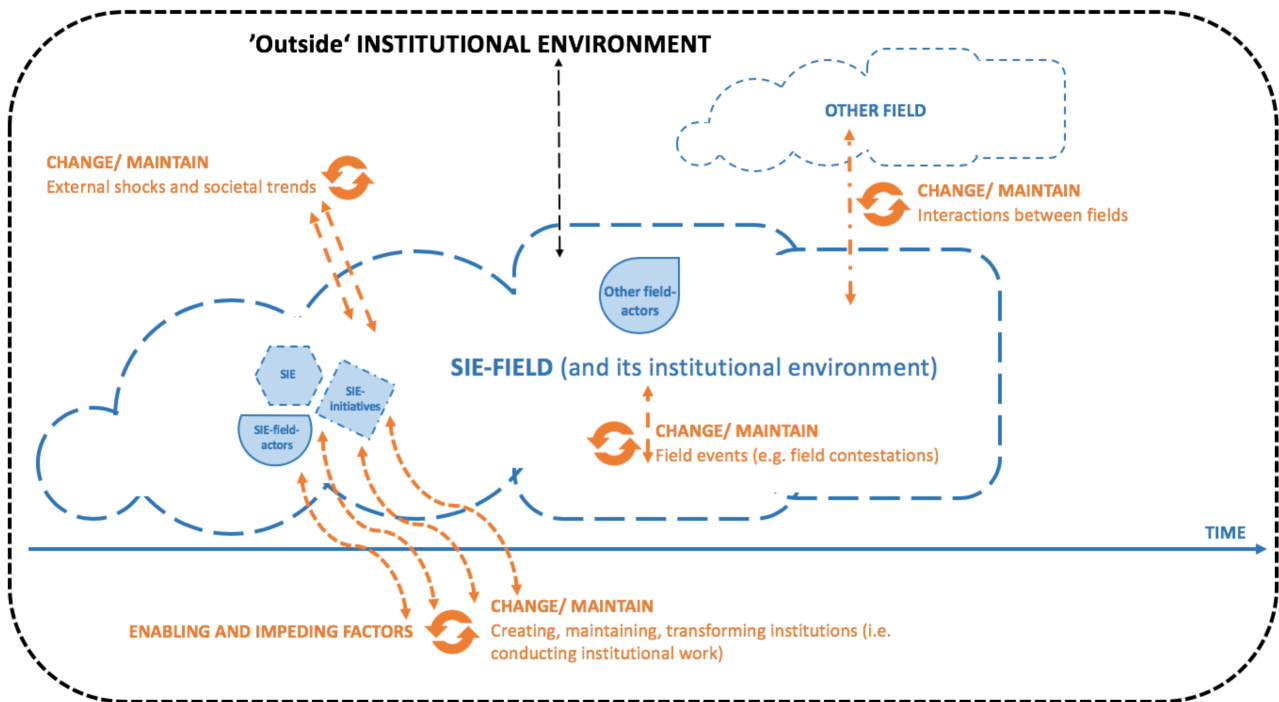


Figure 1: Summary of overall visual conceptual map for WP3

3.1.1 SIE and SIE-field emerges, develops and institutionalises over time

Diverse SIE-initiatives (and other SIE-field-actors) work on social innovation in energy (SIE) and interact with other field-actors (who enable and/ or impede same SIE) within a SIE-field over time. SIE-field-actors (who work on SIE) and other field-actors (who enable and/or impede SIE) are actors within the SIE-field. These actors take one another and their activities into account and have a shared (but not necessarily consensual) understanding of a SIE and of their relationship to one another. Over time, SIE-field-actors and other field-actors’ patterns of activities can become more and more held in place, and practically taken for granted within a SIE-field. Actors can start to recognise (but not necessarily follow) shared norms, beliefs and rules. (see Figure 2)

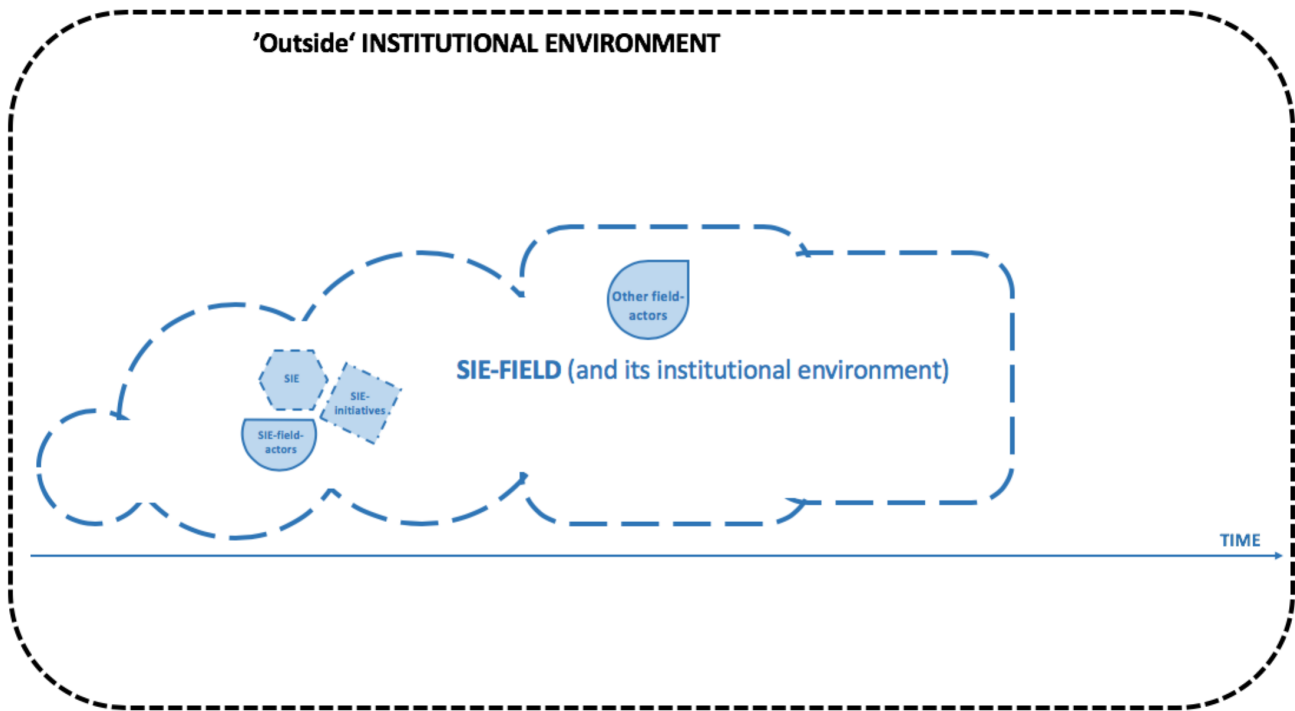


Figure 2: SIE and SIE-field emerges, develops and institutionalises over time

The main focus in this part is on the emergence and development of SIE within a SIE-field as well as the development of SIE-initiatives, SIE-field-actors and other field-actors.

Social innovation in the energy sector (SIE) is a combination of ideas, objects and/or actions that change social relations and involve new ways of doing, thinking and/or organising energy. An example: Organising under cooperative principles to generate renewable energy.

SIE-initiative is a localised version/manifestation in time and space of a SIE. It includes SIE-field-actors, as those actors working on SIE. They can be from every sphere of society (community, market, state, third sector = SIE as multi-actor phenomena). Examples are: Ecovillage Aardehuizen and Living Lab Walldorf.

SIE-field-actors are individuals, organisations or other collectives who are part of a certain SIE-field and actively work on SIE. They can be from every sphere of society (community, market, state, third sector = SIE as multi-actor phenomena). Examples are: Cooperatives, citizen initiatives, energy companies, start-ups, local governments, intermediaries and NGOs.

Other field-actors are individuals, organisations or other collectives who are part of a certain SIE-field - these can enable and/or impede SIE. They can be from every sphere of society (community, market, state, third sector). Examples are: Local governments, national governments, professional organisations, industry actors and citizens.

A SIE-field is an arena/space that includes a specific SIE as well as SIE-field-actors working on it and other field-actors enabling and/or impeding it. In this space these actors take one another and their actions into account and have a shared (but not necessarily consensual) understanding of a SIE and of their relationship to other actors. They recognise (but not necessarily follow) shared norms, beliefs and rules. SIE-fields are often not homogenous but are composed of actors with diverse and contradictory aims and interests. An example: The UK cooperative energy field includes SIE-initiatives and SIE-field-actors (e.g. Brighton Energy Co-op, Cooperative UK, Community Energy England, UK Government, City of Brighton), who have a shared understanding of an SIE, which exists as 'organising under cooperative principles to generate renewable energy'.

We want to empirically identify how actors manifest around specific SIE and develop collectives (e.g. informal and formal alliances/ networks/ collaborations) and shared (but no necessarily consensual) narratives and activities (and associated norms, beliefs and values) over time.

Institutionalisation is a process by which a pattern of activities comes to be regulative, normatively and cultural-cognitively held in place, and practically taken for granted within a SIE-field. The degree of institutionalisation is linked to the emergence and stability of a SIE-field.

We are also interested in understanding what is ‘socially innovative’, by specifying the ideas, objects and actions these actors and collectives are working on within a SIE-field, and how these demonstrate a change in social relations and new ways of doing, organising and thinking.

3.1.2 SIE-field-actors and other field-actor’s interactions with the ‘outside’ institutional environment

The SIE-field (and its actors) are nested within an ‘outside’ institutional environment linked to an energy system that is constituted by formal and informal institutions that shape the activities of SIE-field-actors and other field-actors within the SIE-field. Although energy systems consist of a wide range of institutionalised rules, norms, and beliefs, these institutions have been object to profound changes over the past decade. These changes are due to manifold developments and can be grounded in field events and contestations, inter-field interactions, external shocks and societal trends. (See Figure 3)

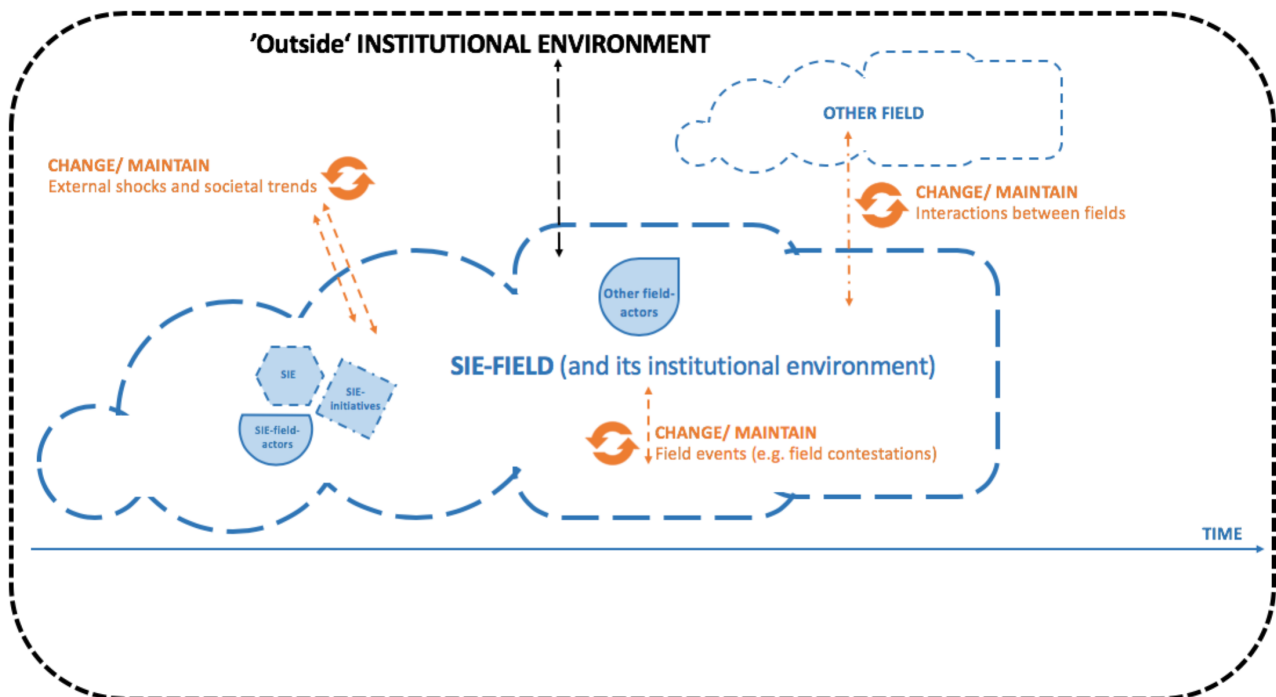
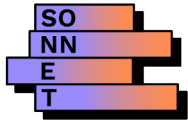


Figure 3: SIE-field-actors and other field-actors’ interactions with the ‘outside’ institutional environment over time



The main focus is on the interactions of SIE, SIE-field-actors and other field-actors with the ‘outside’ institutional environment, thereby co-shaping the SIE and its SIE-field and potentially creating institutional changes or maintaining the existing environment.

Formal and informal institutions constitute the institutional environment. The SIE-field itself constitutes an environment (= SIE-field institutional environment) but also is nested with the larger encompassing institutional environment (= outside institutional environment). The SIE-field and its institutional environment consist of institutions and actors who interact with each other. The ‘outside’ institutional environment consists of institutions that can ‘penetrate’ (i.e. shape/ influence/ interact with) the SIE-field.

Institutional change is any change in form, quality or state in an institution or arrangement of institutional elements.

We are interested in the ‘outside’ institutional environment that ‘surrounds’ and ‘penetrates’ the SIE-field. We want to understand how dominant institutions (regulative, normative and cultural-cognitive elements) within the ‘outside’ institutional environment influence the emergence and development of SIE (i.e. their social relations and patterns of doing, organising and thinking) within a SIE-field.

Institutions are made up of regulative, normative and cultural-cognitive elements. They are tacitly or explicitly agreed upon rules constraining or enabling activities of actors that provide stability and meaning to social life. These can be: 1) Regulative institutions: laws, rules, standards, policies, 2) Normative institutions: norms and value systems, and 3) Cultural-cognitive institutions: shared conceptions of reality, binding expectations, common beliefs.

To understand how SIE-field-actors and other field-actors interact with the ‘outside’ institutional environment, we also need to identify and examine field events and contestations, inter-field interactions of SIE-fields and external shocks and societal trends.

Field events are events, which might influence actors’ relations and interactions within the SIE-field and can ‘unsettle’ the existing ‘outside’ institutional environment (but not necessarily change it). An example: A community energy advocacy group that was set up at a conference and started to talk to policy makers about their activities.

Field contestations are debates among SIE-field-actors and/ or other field-actors over SIE-field structures and processes. These contestations can ‘unsettle’ the existing ‘outside’ institutional environment (but not necessarily change it). An example: Contestations over regulatory and industrial policy linked to energy infrastructure developments.

Inter-field relations are interactions between SIE-fields (they can be nested and/ or overlapping). An example: Cooperative energy is nested within community energy in the UK.

External shocks and societal trends are, for instance, climate change, national elections, capitalism, ageing population, and economic crises that influence SIE-fields structures. Examples: Economic crises, weather disasters, and pandemics.

We are interested in how these events, contestations, relations, shocks and trends influence SIE-field developments and ‘outside’ institutional environments, as they co-shape each other over time. A particular focus is on political and policy developments (see WP2).

3.1.3 Enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work

SIE-initiatives, other SIE-field-actors, and other field-actors perform institutional work - meaning they engage in creating, maintaining and transforming institutions to be able to work on, enable and/ or impede SIE developments. Not all of the actors might be able conduct this work (e.g. depending on skills, capacities, intentions and resources). There might be factors that can support or hinder institutional work. Some of the work conducted might have intentional or unintentional effects. Institutional changes can occur if the work and its activities appear to be more and more legitimate over time whereas previously institutionalised practices become eroded. (See Figure 4)

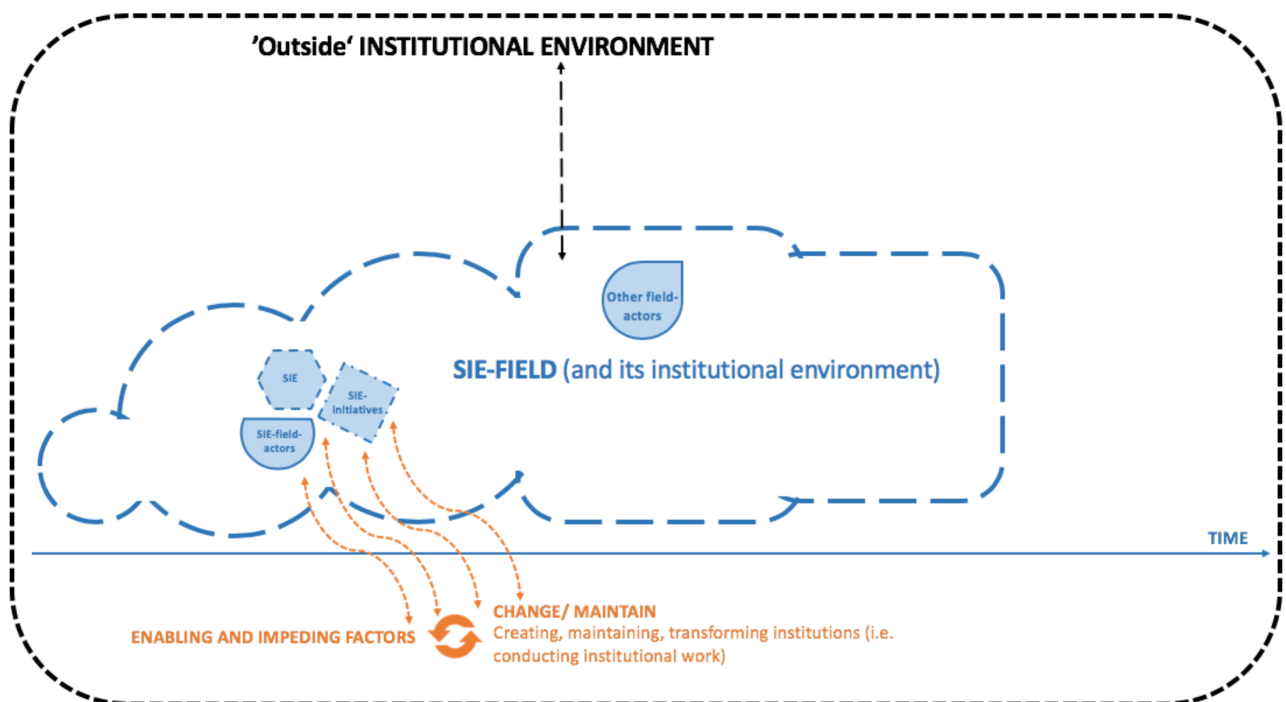
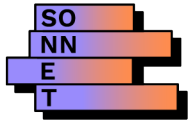


Figure 4: Institutional work (including enabling and impeding factors)

The main focus is on studying the practices of institutional work conducted by SIE-field-actors and other field-actors, in particular, aiming to understand the factors that allow (or not) for these activities to be performed.

Institutional work refers to the activities of SIE-field-actors and other field-actors that aim to create, maintain and transform institutions. Examples: 1) Attempts to influence policy makers and the general public through direct lobbying, research reports, positioning papers, advertising, and the setting of technical standards and 2) Attempts to influence informal institutions, such as values, norms, binding expectations, common beliefs, habits, and routines, among the wider public (Arenas 2017).

We examine why, how, when and where actors work at creating, maintaining and transforming institutions. This then enables us to build an understanding of the different forms of institutional work, types of work conducted (boundary work, strategy work, etc.), actors who are engaged (or not) in this work, and enabling and impeding factors to be able to conduct this work. Drawing



attention to the practices rather than purely accomplishments of institutional work allow for an investigation of intended effects but also unintended consequences, i.e. success as well as failure, winners and losers, and acts of resistance and transformation. This then enables us to study how SIE-field-actors and other field-actors potentially contribute to institutional changes and/ or maintain existing ‘outside’ institutional environments.

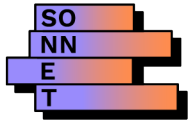
Please also consider power relations within these processes (see WP2): Who is involved (or not)? Who has access to resources (or not)? Who decides who gets access? Who is winning/ benefiting (or not)? How is SIE contributing (or not) to existing power relations? (Avelino and Wittmayer 2016; Avelino 2017 for literature on social innovation and power relations).

3.2 Empirical research questions

The following **major and minor empirical research questions** frame the WP3 investigations (based on the three foci outlined in the previous section). These questions are to guide you in your empirical work and will have to be answered in the actual case study report and country report (a structure of the reports is provided in section 6). These are not interview questions (for interview questions see Annex 1 topic guide).

1. How do the SIE and SIE-field emerge, develop and institutionalise over time?

- SIE: What is ‘socially innovative’ about SIE-initiatives and/ or SIE-field-actors? How and to what extent do which ideas, objects and/or actions demonstrate a change in social relations and new ways of doing, thinking and/or organizing energy? How have these SIE developed over time and space?
- Relevant SIE-field-actors and other field-actors: What are relevant SIE-field-actors and other field-actors within the SIE-field and what are their roles within the SIE-field? How have these changed over time?
- Individual actor’s aims, interests and values: What are relevant aims, narratives and goals that have been developed and manifested by SIE-field-actors and/ or other field-actors within the SIE-field over time? To what extent do SIE-field-actors and/ or other field-actors hold ambitions to change the ‘outside’ institutional environment?
- Interactions & relations between actors: How can the interactions/ relations between SIE-field-actors and/ or other field-actors be characterised (e.g. cooperation, exchange, competition and conflict)? How have they changed (including power relations) over time? What types of informal and formal alliances, networks, collaborations have existed (and possibly still do)?
- Shared activities and narratives between actors: What have been shared narratives, activities, learnt lessons, etc. between alliances/networks/collaborations of SIE-field-actors and/ or other field-actors over time? How have these narratives, activities, lessons, etc. been reproduced, adopted and replicated over time? To which extent have they been legitimised and/ or contested by several actors within the SIE-field over time? How/ to what extent do they refer to power issues and include ambitions to improve them?



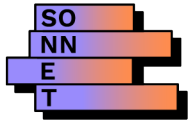
1.2 How do SIE-field-actors and other field-actors interact with the institutional environment and thereby co-shape the SIE-field over time?

- Dominant institutions: Which institutions (regulative, normative, cultural-cognitive) within the ‘outside’ institutional environment have shaped (including enabled/ impeded) SIE and its SIE-field (and how)?
- ‘Outside’ institutional environment: What are the key external shocks, trends and inter-field interactions that enable/ impede SIE and its SIE-field, and how (now and in the past)? How is the SIE and its SIE-field shaped by these events, trends and interactions (now and in the past)? How (if so) have these shocks, trends and inter-field interactions unsettled the ‘outside’ institutional environment?
- SIE-field institutional environment: What are important field events and field contestations⁵ that have influenced the SIE and its SIE-field (now and in the past and why)? How (if so) have these events and contestations unsettled the ‘outside’ institutional environment?
- Interactions: What have been the most important alliances/networks/collaborations and shifts in power between SIE-field-actors and/ or other field-actors that emerged from these shocks, trends, interactions, events and contestations (when, how and for what reasons)?

1.3 What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the ‘outside’ institutional environment?

- How, why, when, and where do SIE-field-actors and/ or other field-actors conduct activities linked to creating and transforming institutions? What have been the most important collective (shared) activities (when, how and for what reasons)?
- How and to what extent do SIE-field-actors and/ or other field-actors reproduce dominant ways of doing, organising and thinking (i.e. maintaining institutions)? (Intended or unintended)
- What factors have enabled and/or impeded institutional work? E.g. Resources, learnt lessons and competences connected to actors/ alliances/ networks/ collaborations.
- Who is involved in conducting institutional work (and who is not, and why not)? Which actors benefit from this work (or not)?
- What forms do these activities linked to maintaining, creating and transforming institutions take (e.g. emotional work, boundary work, strategy work, and/ or values work)?
- What have been intended and unintended effects (i.e. contributions) derived from conducting institutional work? What influence have they had on SIE-field and ‘outside’ institutional environments?

⁵ These can be contestations within the field and/ or linked to the ‘outside’ institutional environment.



4 EMBEDDED, MULTIPLE CASE STUDY APPROACH

The aim of this section is to provide a description and partial explanation (with references for those who wish to delve deeper) of our case study approach (section 4.1). Then, we discuss some important *ethical considerations* that are central to our mission as researchers and will inform all other parts of the research process (section 4.2).

In the following section, section 5 ‘conducting the case studies’, we provide detailed guidance on data gathering and analysis.

4.1 Embedded case study approach

4.1.1 Going beyond the development of individual SIE-initiatives

Based on our literature review (conducted as part of WP1) and discussions during the Rotterdam project meeting (M9), suggestions were made to go beyond investigating the emergence and development of individual SIE-initiatives to be able to answer our research questions linked to WP3. Two arguments have shaped these discussions:

- Our research questions and conceptual ambitions that are linked to understanding institutional change can only be fully answered by investigating multiple actors (e.g. actors who work on/ enable/ impede SIE) and activities across several SIE-initiatives.
- The state of the art of the social innovation literature can be advanced by going beyond the focus on SIE-initiatives, which already have been investigated mainly in single-cases (Wittmayer et al. 2017)

The WP1 and WP3 team looked at an embedded case study approach (Yin 2003) as a way forward to go beyond the emergence and development of individual SIE-initiatives. An embedded case study approach was selected because it allows us to:

- Define research topics broadly and not narrowly
- Investigate several units of analysis within a case
- Cover contextual or complex conditions and not just isolated variables
- Rely on multiple and not singular sources of evidence
- Being both explanatory and exploratory in approach
- Understand social innovation in energy as an embedded phenomenon

Baxter and Jack (2008:550) cite the benefit of embedded case design to illuminate the case through analysis ‘*within* the subunits separately (within case analysis), *between* the different subunits (between case analysis) or *across* all of the subunits (cross-case analysis)’. For instance, ‘the single case might be a public program that involves large numbers of funded projects - which would then be the embedded units’ (Yin 2009). This means the researcher is able to investigate subunits that are located within a case (see Figure 5).

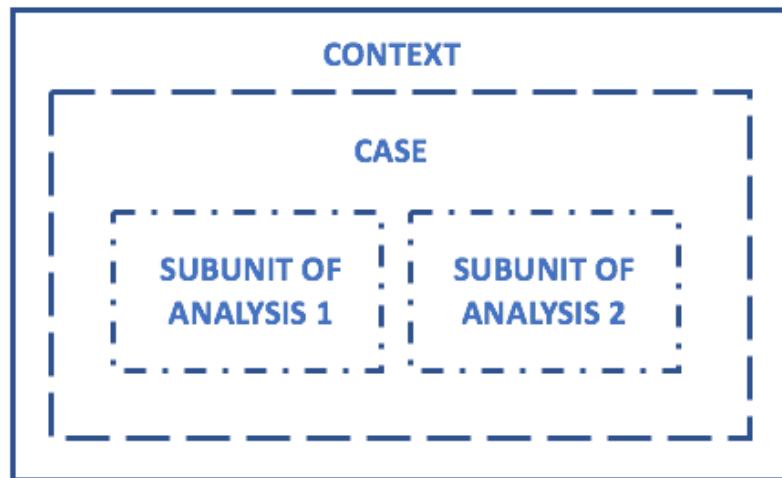


Figure 5: Illustration of embedded case study design (taken from Yin (2003))

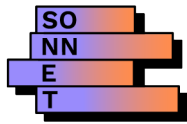
To be able to study institutional change processes, we will take an embedded case study approach that allows us to investigate SIE-fields and several sub-units, e.g. SIE, SIE-initiatives and other field-actors (who work on, enable and/ or impede SIE) that sit within an ‘outside’ institutional environment.

4.1.2 Investigating SIE-fields: Our selected cases

Adopting an embedded case study approach to conducting the research allows for an investigation of SIE-fields as an embedded phenomenon.

‘The concept of field incorporates field-level structures, participating organisations, and the actors working within and between these organisations, encouraging multi-level analysis... Organisations exist and operate within specialised institutional environments and these fields are themselves nested within and interdependent with larger encompassing systems’ (Scott 2010:8).

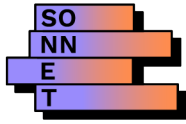
What kind of case is a ‘SIE-field’? Drawing on Ragin and Becker (1992:9), the SONNET cases can be considered to be both ‘cases are conventions’ (i.e. theoretical constructs) and ‘cases are found’ (i.e. empirical units). ‘Cases are found’ are ‘empirically real and bounded... they must be identified and established as cases in the course of the research process’ whereas ‘cases are conventions’ are ‘general theoretical constructs that structure ways of seeing social life and doing social science’ (Ragin and Becker 1992:9,11). They are ‘collective products of the social scientific community’ (Ragin and Becker 1992:11). Within SONNET, we make use of the theoretical construct of a ‘SIE-field’ that allows us to investigate SIE, SIE-initiatives, other-field-actors and institutional change processes in the energy systems. To be able to examine a ‘SIE-field’, we need to also draw on empirical work to define the case and its boundaries in a more inductive manner (see section on boundaries of the SIE-field). Most scholars have argued that SIE-fields and their boundaries may only be understood through empirical investigation, considering that they are ‘socially constructed’ and boundaries can shift over time (Fligstein and McAdam 2012:12-13).



As part of the WP1 and WP3 work, we have identified **eighteen clustered SIEs that together with SIE-field-actors and other field-actors make up the SIE-fields** (for more detail see D1.1 and D1.2). To be able to study the SIE-fields in-depth and compare them, we have first delineated the national context as important factor in the development and emergence of SIE and have included a diverse mix of country contexts (FR, DE, CH, PL, UK, BE/NL) (see SONNET proposal for more details on the selections criteria). We then developed a SIE-typology (see deliverable D1.1) and identified SIE clusters (see deliverable D1.2), and **selected six SIE-fields** for further investigation. The selection of SIE-fields was grounded in a purposive sample including the following selection criteria: 1) recognisability and prevalence of SIE-fields in each national context (i.e. SIE-fields had to be empirically recognisable in each SONNET country); 2) full coverage of interactions and manifestations that have been identified for the SIE-typology in WP1 (e.g. cooperative/doing and conflict/thinking); and 3) practical considerations including synergies with other SONNET work and building upon consortium expertise, relations in the field and interests of country teams. The following six SIE-fields have been selected:

Table 2 below shows the six SIE-fields

Name of SIE-field	Description
Cooperative energy production & consumption	<p>This cluster is centred around cooperative business models around the generation/ supply of electricity from renewable energy sources, initiated by community-led energy cooperatives. It is a sub-cluster of cluster 1, local energy production and consumption (singled out because of its prevalence).</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Non-profit orientation; - Initiated by community-led energy organizations engaged in electricity generation/supply (i.e. cooperatives, community benefit societies, etc); - Often focus on local and/ or regional environment; - Offering electricity and/ or heat. <p>Activities include:</p> <ul style="list-style-type: none"> - Supplying electricity/ heat from renewable energy sources (e.g. PV, wind).
Local peer-to-peer electricity exchange	<p>This cluster is centred around neighbourhoods and communities involved in exchanging electricity locally.</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Exchange of electricity between different households; - Focused on the local/ regional environment; - Initiated and driven by multi-actor partnerships (community, DSO, municipality, energy utility, etc.); - Often framed as experimental to create space within institutional context (i.e. as city labs, living labs or experiments); - Often using bitcoin and/ or smart technology to allow peer-to-peer exchange. <p>Activities include:</p> <ul style="list-style-type: none"> - Exchanging electricity; - Often combined with the generation and/ or storage of electricity.
Campaigns against specific energy pathways	<p>This cluster is centred around opposing narratives against specific energy pathways through peaceful opposition, lobbying and/ or campaigns.</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Focused on protesting against a certain energy practice; - Driven by multi-stakeholder collaborations, associations, NGOs and grassroots organisations; - Often through campaigns and/ or peaceful opposition, aiming to push a certain framing or narrative. <p>Activities include:</p> <ul style="list-style-type: none"> - Protesting against energy practice (i.e. fossil fuels, nuclear or smart technology); - Lobbying for a certain political agenda or societal discourse (i.e. anti-smart meters).
Participatory experimentation and incubation	<p>This cluster is centred around organising experimentation and incubation of ideas and/ or technology through multi-actor constellations.</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Facilitate a space to develop/ ideate an idea and/ or technology; - Driven by multi-actor constellations; - Aiming to test and demonstrate technical or social experiments around (sustainable) energy; - Often aiming to catalyse and/ or accelerate innovation. <p>Activities include:</p> <ul style="list-style-type: none"> - Facilitating space to test experiments/ ideas (i.e. technology for sustainable energy).



Name of SIE-field	Description
Investment and finance mechanisms	<p>This cluster is centred around facilitating investments in (sustainable) energy.</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Facilitating/ offering financing from private sources (e.g. through crowdfunding); - Driven by companies, public, NGOs or community actors (e.g. foundation, municipality, national government); - To facilitate return on investment to shareholders and/ or investors. <p>Activities include:</p> <ul style="list-style-type: none"> - Facilitating/ offering financing from private or public sources (e.g. through crowdfunding or a subsidy).
Energy gamification & nudges	<p>This cluster is centred around changing behaviour through play, nudges or gamification.</p> <p>Shared concepts:</p> <ul style="list-style-type: none"> - Competitive element; - Changing behaviour is often the main goal; - Topics include energy savings, and general sustainable behaviour; - Reward of competition might be financial; - Often embodied in competition-driven app, board game, label or award; - Often initiated by municipalities and non-profits. <p>Activities include:</p> <ul style="list-style-type: none"> - Organising a competition around behaviour change (e.g. energy savings competition amongst students); - Providing a label for best-performing objects and/ or actors (e.g. label for energy performance of house); - Nudging users to change behaviour (e.g. through app changing energy consumption)

The WP3 country teams will be able to compare three different SIE-fields within their own national context (e.g. cooperative energy, local peer-to-peer electricity exchanges, and energy gamification and nudges in France) (as part of task 3.2). In addition, the WP3 leads can compare each SIE-field across three different national contexts (i.e. cooperative energy in France, Switzerland and Germany) (as part of task 3.3). The next section outlines the unit of analysis to be studied for each embedded case study and additional steps to define the boundaries of the SIE-field.

4.1.3 Defining the units of analysis and boundaries of a case

Unit of analysis

SONNET aims to make use of an **embedded case study approach**, aiming to describe SIE-fields using diverse subunits of analysis. The main unit of analysis is the SIE-field (i.e. our case), whereas the **subunits of analysis** are made up of SIE-initiatives (and other SIE-field-actors), other field-actors and SIE (see Figure 6). The **context** relates to ‘outside’ institutional environment linked to the SIE-field, seeing that SIE-fields are embedded within larger encompassing context.

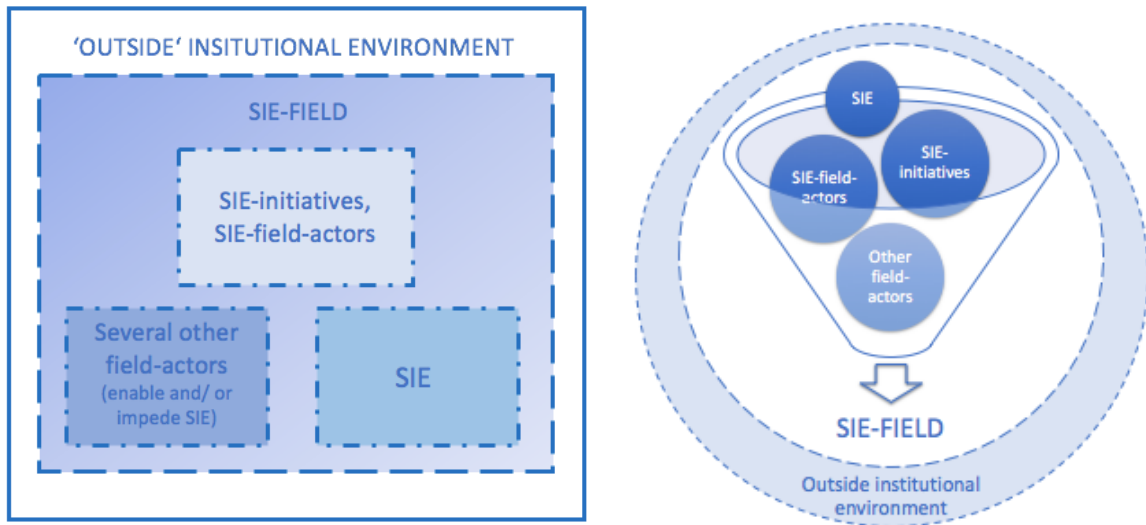
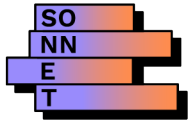


Figure 6: Two illustrations of SONNET's embedded case study design: Based on Yin's (2003) visualisation (see left) and a SONNET 'translation' showing the relations between the subunits (see right)

The WP3 working group has selected six **SIE-fields** and associated **SIEs** to be studied in SONNET (the process of selecting these units of analysis is outlined in 4.1.2 and deliverables D1.1 and D1.2). Additional **sub-units of analysis** (that are to be investigated) will have to be selected by each WP3 country team (in collaboration with their SIE-field team, e.g. cooperative energy in France, Switzerland and Germany). The following selection criteria can inform the process of selecting the additional subunit of analysis during the fieldwork:

- **A minimum of two SIE-initiatives** (i.e. who work on SIE). These are 'typical SIE-initiatives' i.e. SIE-initiatives who are considered to be normal/ typical in the way they work on SIE. Moreover, they have been around for longer periods of time than other SIE-initiatives. They are able to generally recognise the SIE-field and have actively participated in its development. Please consider the SONNET cities in your selection of SIE-initiatives.
- **Several other field-actors who intentionally and/ or unintentionally enable SIE developments** within a SIE-field. These are 'critical' other field-actors enabling SIE, i.e. other field-actors who yield the most information about the SIE-field in relation to enabling factors for SIE. These can be, for instance, actors who enable SIE through sharing information and developing forms of networking, providing tools and resources, offering specific professional services, managing and evaluating funding programmes and/ or conducting advocacy work. These organisations have a good overview of the SIE-field and have been engaging in it for longer periods of time.
- **Several other field-actors who intentionally and/ or unintentionally impede SIE developments** within a SIE-field. These are 'critical' other field-actors impeding SIE, i.e. other field-actors who yield the most information about the SIE-field in relation to impeding factors for SIE. These can be, for instance, actors who have influenced negatively the development of SIE (e.g. policies that do not allow for certain business models), inclusion of diverse actors in SIE (e.g. non-inclusive participatory processes), resource environment of SIE (e.g. funding landscape). These actors do not necessarily recognise the



SIE-field or have known it for a long time, they are mainly identified as impeding the developments of SIE by SIE-initiative or other field-actors who enable SIE and/ or academic researcher who conduct research on SIE.

A note of caution: ‘the subunits can often add significant opportunities for extensive analysis, enhancing the insights into the single case within embedded case study approaches. However, if too much attention is given to these subunits, and if the larger, holistic aspects of the case begin to be ignored, the case study itself will have shifted its orientation and changed its nature’ (Yin 2003:46).

SIE-field boundaries

In addition to empirically selecting the subunit of analysis that make up the case, the SIE-field teams need to work on identifying the boundaries of the SIE-fields. We have identified six SIE-fields (e.g. cooperative energy) and related SIE (e.g. cooperative energy as cooperative principle (ideas) using renewable technologies (objects) to generate electricity/ heat (action)). For each SIE-field, the SIE-field teams and WP3 leads still need to empirically define its boundaries.

Our **definition of a SIE-field** provides some guidance on how to define its boundaries:

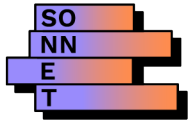
A SIE-field is an arena/space that includes a specific SIE as well as SIE-field-actors working on it and other field-actors enabling and/or impeding it. In this space these actors take one another and their actions into account and have a shared (but not necessarily consensual) understanding of a SIE and of their relationship to other actors. They recognise (but not necessarily follow) shared norms, beliefs and rules. SIE-fields are often not homogenous but are composed of actors with diverse and contradictory aims and interests.

The WP3 SIE-field teams will therefore **identify the boundaries of the SIE-fields** through conducting an initial document review and making sense of:

- SIE configuration over time (i.e. combination of ideas, objects, actions);
- Actors’ increased interactions with one another linked to the SIE over time (i.e. density of interactions between actors);
- Different types of relations that they create over time (e.g. membership boundaries, coalitions and/ or interaction networks) over time;
- Actors’ shared (but not necessarily consensual) understanding of SIE (e.g. common activities, narratives and objects) over time;
- Actors’ recognised (but not necessarily followed) shared norms, beliefs and rules over time.

Moreover, the SIE-field teams can take into account that...

- Actors develop a socially constructed understanding of the SIE-field where boundaries of this SIE-field can change over time;
- Actors can take several roles in the SIE-field (e.g. work on, enable and / or impede SIE developments). This might include incumbent, challenger and/ or adversary roles;
- SIE-fields should be studied over a 5-10 year history (if possible) and are bounded within the national context.



Short example of initial steps to define the cooperative energy field in the UK

SIE-initiatives and other field actors within the ‘cooperative energy field’ in the UK interact with each other to work on, enable and/ or impede the following SIE: cooperative energy as cooperative principle (ideas) using renewable technologies (objects) to generate electricity (action).

SIE-initiatives who have worked on the SIE for a long time are, for instance, the Brighton Energy Coop and Bristol Energy Coop. They regularly interact with each other to learn from each other’s experiences. This can happen through visits and calls. They often see each other at community energy events in the UK.

During these events, they regularly meet other field-actors who enable the SIE developments (such as Cooperative UK and Community Energy England). For example, Community energy England sends out a survey each year to investigate the shared impact of community energy in the UK. Cooperative energy is nested within this larger SIE-field.

In 2013, some of the SIE-initiatives linked to cooperative energy created a temporary contact group to be able to lobby for a separate feed-in-tariff for community groups. Their efforts have not been successful; it might therefore be possible to suggest that policymakers working on energy temporarily became other field-actors who impede SIE.

This is just a short extract of an example how the boundaries of the SIE-field can be explored. It might also be good to think about which actors are not part of the SIE-field.

Each country team will conduct a **preliminary document review for each of their SIE-fields in April 2020**. The field teams will have online calls to share some of the findings and together select the focus of the SIE (if needed) and demarcate the boundaries of the SIE-field. These calls were conducted on the 21st and 23rd of April 2020.

4.1.4 Multiple, embedded case studies

Merriam (1998) has suggested that including multiple case studies (i.e. within SONNET = multiple SIE-fields) in a research study makes the findings and interpretations more compelling. The logic behind choosing a multiple case study instead of a single case study can be driven by the position that studying multiple cases of the same phenomenon might corroborate, qualify, or extend the findings that might occur were there to be only one case. Moreover, Eisenhardt and Graebner (2007) have argued that ‘multi-case studies can be better ground for building theory from case studies - the phenomenon becomes more generalisable if it occurs in a number of cases’ (Karlsson 2016:4). Researchers are able to analyse the data both within each situation and across them, understanding similarities and differences between cases (Yin 2003).

SONNET’s multiple case studies consist of six SIE-fields (i.e. in the Figure: circle, triangle, etc.). Each SIE-field will be examined in three national country contexts, creating a total of 18 embedded case studies, including 36 SIE-initiatives who work on SIE. This means we can investigate and compare diverse SIE-fields within several national country contexts.

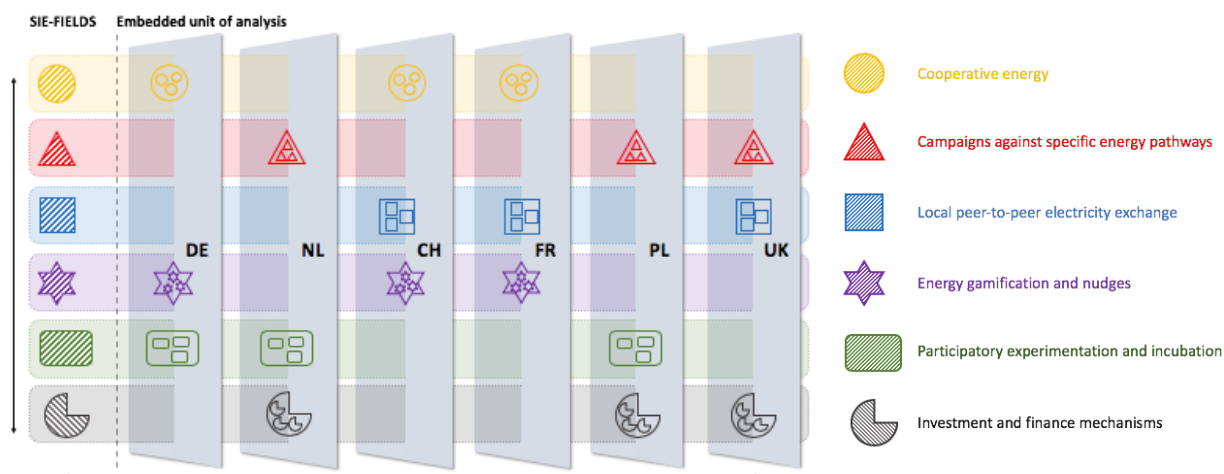


Figure 7: Illustration of SONNET's embedded, multiple case study applied, including national country

To provide a bit more detail: During the analysis, each case study and its sub-units are considered to be a complete and unique phenomenon. This means that each case study will be analysed on its own before carrying out a comparative analysis. For example in France, the country team will analyse 'cooperative energy', 'peer-to-peer electricity exchange', and 'energy gamification and nudges' as single case studies (as part of task T3.2 of WP3 - case study reports). Considering that these are embedded case studies, WP3 country teams will examine each unit of analysis (SIE, (at least two) SIE-initiatives, other field-actors, and SIE-field) in its own right and look across them for the analysis.

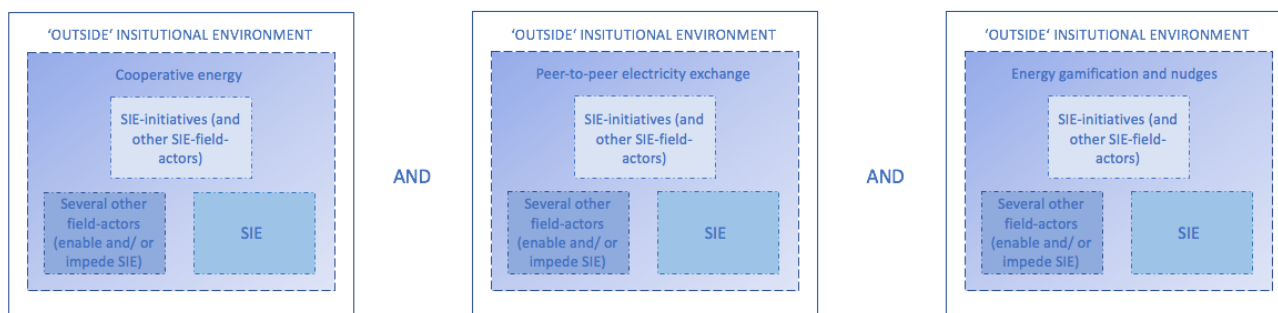


Figure 8: Illustration of three single, embedded case studies in France

In addition, each WPs country team will conduct a cross-case analysis. For example in France, the country team will conduct a cross-case analysis of 'cooperative energy', 'peer-to-peer electricity exchange', and 'energy gamification and nudges' in France (as part of task T3.2 of WP3 - country report).

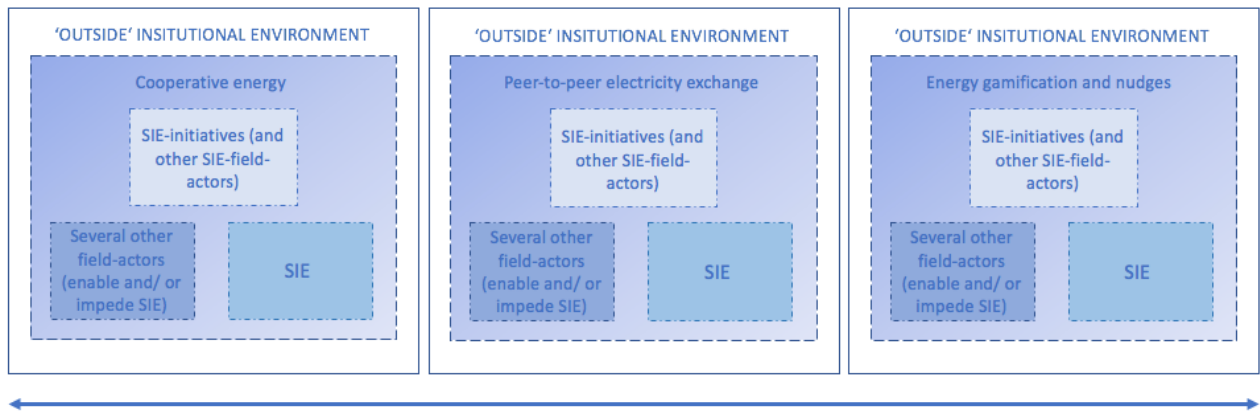


Figure 9: Illustration of multiple, embedded case study in France

In addition, the WP3 leads will compare each SIE-field across three different national contexts (e.g. cooperative energy in France, Switzerland and Germany) (as part of task T3.3 of WP3 - meta-analysis).

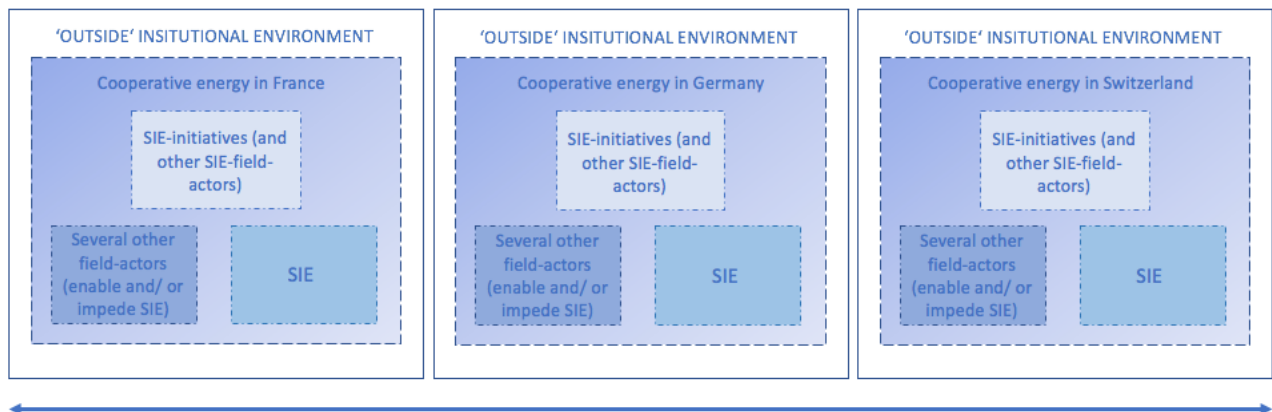
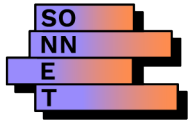


Figure 10: Illustration of embedded, multiple case study of one SIE-field (Example)

4.2 Research principles and relations in the case studies

The principle of **reflexivity** - which relates to the *attitude* that we take to our work, throughout the entire research process - is critical to our approach. Adopting a reflexive attitude means paying attention to the *conditions under which knowledge is created and shared*. This is especially important with respect to *our own influence* on the processes and outcomes of our research, but it also necessitates an *awareness of the dynamics of power* that may be operating within and between the SIE-field-actors and other field-actors that we study.

This is just as important as the ‘nuts and bolts’ of the research design presented above - and its relevance is very broad. As well as being fundamental to understanding both our *roles as*



researchers and our *relationships with SIE-field-actors and other field-actors*, reflexivity is also relevant to the way that we understand the data that we are gathering and analysing. Thus, in doing our research we should be aware of distinctions between:

- Discourses (what is said) and practices (what is done) of actors involved in SIE
- Different perspectives and framings upheld by different actors within cases

Overall, it is important that we are **explicit and specific** about the choices we make in the research process and about whether or not concepts are relevant to the SIE-field-actors and other field-actors under study. The text box below contains a number of further principles that are core to the SONNET case study approach:

Research principles and relations in the case studies*

Proximity – distance

Principle:

In each case study, we strive for a good balance between proximity (being close to, knowing a lot about and maybe even being part of a SIE-field-actor being studied) and distance (being independent or at least being able to perform critical and documented analysis of the SIE-field-actor and other field-actors and its dynamics). The concept of ‘a critical friend’ or ‘friendly outsider’ from action research might be a way of describing our relations to the social innovation case.

Practical implications:

- Engage in critical conversations about the practices in the social innovation actor (Greenwood and Levin 2007).
- Include a description of the researchers’ relation to the actors in each case study report.

Reciprocity and mutual benefits

Principle:

In engaging in relations with the studied social innovation cases we strive for these to be mutually beneficial and ensure some degree of reciprocity. Reciprocal relations can be of various shades.

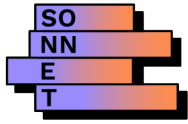
Practical implications:

- Ask about challenges and perspectives which actors involved in the social innovation would find interesting to have explored and analysed in the case study.
- Highlight the potential utility to them of the case study report that will be produced about their activities.
- *Where relevant*, offer participation in prearranged SONNET workshops, highlighting opportunities for networking and discussions with other social innovation actors, researchers and policy makers.
- *Where practically feasible*, offer to arrange an additional meeting to discuss the case study report, where we could present our findings to a larger audience.

Social innovation actors as research subjects or objects

Principle:

This aspect relates to SIE-field-actors and other field-actors’ participation in the research process as research subject and/or research object: As research subject in the case study, SIE-field-actors and other field-actors might be active in the research process (e.g. reviewing case study reports). Such an active role demands interest and available time from actors - which might not always be given. However, despite limited available time from social innovation case actors to engage in the research process, we should strive for reciprocity and dialogue with SIE-field-actors and other field-actors.



Practical implications:

- Find out how cooperation with each SIE-field-actor and other field-actor can be carried out in a way that the actors find interesting and that is reasonable with respect to focus and time consumption (for both researchers and social innovation actors).
- Consider whether you can offer to provide them with a case study report that is of interest to them, e.g. linked to their area of work. Also consider asking them to review the report, but be careful to acknowledge their input.
- Refer to the debriefing procedure for more guidance.

Normativity: Transparency and diversity in data sources

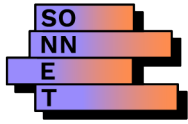
Principle:

Many researchers in the consortium have a positive attitude towards SIE-field-actors and other field-actors they study. A normative stance is inevitable. However, it is important to reflect on it, be mindful of it, and make it transparent. The same goes for the normativity of interviewed social innovation actors (and interviewed opponents or incumbent actors). It is not possible to find a ‘truth’ about social innovation dynamics, but data, analyses and conclusions should be documented and highly transparent.

Practical implications:

- Ensure that each case study is based on a diversity of actors and sources.
- Make your own normativity in relation to the studied SIE-field-actor and other field-actor and their impacts transparent in the case study report.

* Adapted from TRANSIT project D4.1 Methodological guidelines (Jorgensen et al. 2014)



5 CONDUCTING THE CASE STUDIES

In this section, we provide an outline of the **basic research methods** that will allow us to study 1) SIE-field and SIE emergence, development and institutionalisation over time, 2) SIE-field-actors and other field-actors' interactions with the 'outside' institutional environment, and 3) Enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work. It introduces the data collection through document review (section 5.1.1), in-depth interviews (section 5.1.2) and participant observation (section 5.1.3). We draw on the innovation history and critical turning point approach for some of this data collection. This section also outlines the data analysis (section 5.2). The main aim of the data collection and analysis is to **answer our major and minor empirical research questions** (as outlined in section 3.2).

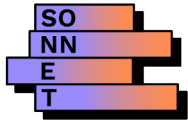
As outlined in the SONNET research proposal, SONNET gathers data through conducting 24-50 interviews, analysing 40-60 documents and carrying out 30-60 hours of participant observations across the three embedded case studies in each national context⁶. Actual numbers depend on data availability, size, age and complexity of each case study. These three methods are being used to enable data enrichment and triangulation.

The current circumstances due to the **COVID-19** will have consequences for how we collect data - we will monitor this closely as the situation unfolds and take appropriate measures. For instance, this might mean to deepen the document review (and add desktop and archival research to it) and decrease (or conduct online) participant observations for every case study. It might also mean that we spread case study work over the rest of the year and e.g. conduct the first case study work over the summer and second and third ones towards the end of the year (maybe we are out of lockdown by then). Some of the in-depth interviews might also need to be conducted over the phone or via video calls (rather than face-to-face). We need to be aware of interviewees' potentially changed circumstances when approaching them.

These new circumstances might vary between countries and rapidly change throughout the fieldwork. Some of challenges might only become apparent as we carry out the work. We have therefore decided to outline the research methods as planned in the proposal within this deliverable. Through our monthly WP3 working group calls, we can share potential challenges that might arise and talk about how to adapt the work. Please feel free to suggest to the WP leader how to best adapt the research methods to your current (changing) situation in your country context, e.g. deeper document review and telephone interviews.

In the following section, **section 6 'structure of reports'**, we provide structure of the case study reports and country report.

⁶ These are the total numbers for all three embedded case studies in each national context. Actual numbers depend on data availability, size, age and complexity of each case study.



5.1 Data gathering

As outlined in section 4, SONNET makes use of an **embedded case study approach**, aiming to **describe SIE-fields using diverse units of analysis**. The main unit of analysis is the SIE-field, whereas the subunits of analysis are made up of SIE-initiatives and SIE-field-actors (who work on SIE) and other field-actors (who intentionally and/ or unintentionally enable and/ or impede SIEs within a SIE-field) and SIE. The context refers to the ‘outside’ institutional environment linked to the SIE-field (wider socio-political, social-economic and socio-cultural context), seeing that SIE-fields are nested within larger encompassing context.

We draw on the innovation history approach to co-construct the emergence and development of a SIE-field (including a SIE/ SIE-initiatives/ SIE-field-actors/ other field-actors). Case study researchers (through the document review) and SIE-field-actors and other field-actors (through interviews) will co-create this history. In addition, we take inspiration from the critical turning points approach to examine critical instances/ processes where SIE-field-actors and other field-actors have conducted institutional work to create, maintain and/ or transform institutions.

Short introduction to ‘innovation history’ (Douthwaite and Ashby 2005) and critical turning points approach (Pel et al. 2015)

Innovation history: ‘Preparing an ‘innovation history’ is a method for recording and reflecting on an innovation process. People who have been involved in the innovation jointly construct a detailed written account (sometimes referred to as a ‘learning history’) based on their recollections and on available documents’ (Douthwaite and Ashby 2005:1).

In SONNET, we aim to co-construct an innovation history of the emergence and development of SIE/ SIE-initiatives/ other field-actors within a SIE-field.

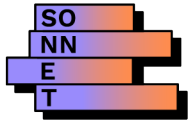
Critical turning points approach: Critical turning points (CTP) in the innovation journeys of social innovation initiatives are moments (or events/processes) at which initiatives undergo or decide for change-of-course. The notion of a CTP comes from the idea that SIE-initiatives need to periodically reinvent themselves in order to maintain their ‘transformative’ potential (Pel et al. 2015).

In SONNET, we only take inspiration from this approach to more deeply examine instances/ processes of institutional work (rather than critical turning points of individual SIE-initiatives). This will be further outlined in the sections below.

These important nuances of these methods are reflected in the approach that we have developed for conducting the case studies. We outline/ reflect on them in greater depth in the following sections.

5.1.1 Document review

The document review allows insights into the representations of the SIE-field through SIE-field-actors and other field-actors (i.e. primary documents) as well as by others (i.e. secondary documents). The method aids our understanding of how SIE-field-actors and other field-actors perceive and experience the SIE-field, not only now but also over the last 5-10 years. The review can include grey and scientific literature.



Our document review aims to help us prepare for the case study work (e.g. get to know the SIE-field-actors and other field-actors in the SIE-field), construct a preliminary timeline (visual) of the SIE-field (including the development of the SIE, SIE-initiatives and other SIE-field-actors, and other field-actors) (see section 5.1.2 for the construction of the timeline), and enrich and triangulate the data derived from in-depth interviews and participant observation. Through document review, we emphasise the importance of the emergence and development of a SIE-field (including an SIE, SIE-field-actors and other field-actors) over time. One of the aims of the document review is reconstructing parts of this ‘history’ (or at least key events, etc.) based on different types of documents found. The document review can also provide background information to contextualise the SIE-field under investigation (e.g. policy developments) and relate it to other SIE-fields. Documents can contain data that can no longer be observed and SIE-field-actors and other field-actors have forgotten. The document review can therefore be used as a foundation for and complement the in-depth interviews and participant observation.

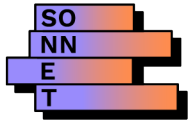
In SONNET, document analysis should include two types of documents:

1. **Primary sources:** these can be pamphlets, websites, reports, minutes from meetings, newsletters, newspaper articles, handbooks, master plans, homepages, blogs, Twitter, Facebook, etc. *originating from the SIE-field-actors and other field-actors in the SIE-field under study.*
2. **Secondary sources:** reports, scientific articles, media articles (online and offline), etc. *written by others about the SIE-field, SIE-field-actors and other field-actors under study.* This could also include documents describing and analysing specific SIE-initiatives linked to the SIE-field and ‘outside’ institutional environment (e.g. policy) of direct relevance to the SIE-field under study.

One of the central questions relating to document review is **how to delimit the process:** which documents are going to be reviewed, and which are left out? Some criteria for making these decisions could relate to **relevance** (is the document of direct relevance to the SIE-field under study?), **authenticity** (is the document really written by/ from the perspective that it claims?), **credibility** (is the author a credible source; are the claims believable?), **coverage** (does your selection of documents cover a broad enough range of perspectives relating to the SIE?), and **meaning** (do the documents selected, both individually and in combination, contribute meaningful insights to your understanding of the SIE under study?).

Possible steps for conducting document review for the ‘cooperative energy’ field in the UK

1. Gather relevant texts (keep notes of relevant data to answer research questions)
 - Researcher knows some of the SIE-field-actors and other field-actors through previous work (e.g. Community Energy England, Cooperative UK, Regen South West) and goes to their websites to check for texts and links to other SIE-field-actors and other field-actors.
 - Check out the links to other SIE-field-actors and other field-actors to find additional actors and their reports, websites, blog articles, etc.
 - Make use of the SONNET Mendeley database, Scopus or Science Direct to look for academic literature on ‘cooperative energy’ in the UK, in particular, trying to find papers that examine the SIE-field or particular case studies of SIE-initiatives. Some of the articles might also talk about policy, economic and social issues that have influenced the SIE-field.
 - Look at the government publication website for relevant energy white papers and other texts relevant for the SIE-field.
 - Look at the University of Sussex’s newspaper archive called Nexis for media articles about the SIE-field.



- Researcher asks colleagues who have done research on the SIE-field (or SIE-field-actors) if they are aware of texts that describe it. Leads can be followed up.
2. Keep Excel spread sheet to list all the texts found
3. Ask questions about collected texts (e.g. who produced it? Why? When?)
4. Review and code the texts & answer major and minor research questions (see section 5.2 on how to conduct the analysis)

Another important consideration is **the need to be critical in your approach**; it is essential to reflect on *who has written the documents, for whom, and for what purpose*. Documents are not simply data. Primary sources from SIE-field-actors and other field-actors can have the purpose of being ‘sales-material’ for the organisation. Moreover, in some types of meeting minutes, disagreements are suppressed and consensus appears in the text. It is important to keep this in mind. Be aware that at times it might not be easy to make a clear distinction between primary and secondary sources.

As you build up a bank of potential documents to include within the analysis, you might like to **gather details of them into a database**. This will enable you to consider the criteria above systematically, as you decide which documents to dive into. In addition to using the five criteria within your database, you could also include your reflections on who has written the documents, for whom, and for what purpose. This way, you will have primed yourself for taking an informed and critical approach to your analysis of the document before you begin.

In practice, the exact number and type of documents that you will analyse will vary from case to case, but a minimum of 13 documents per case should be analysed per SIE-field (see section 5.1.4 depth of the research).

Archival research and media text analysis as potential additional methods (conducting desktop research)

Just in case we are not able to conduct participant observation for all of our case studies, we can deepen the document review through archival research, analysis of media texts and other desktop research methods.

A media analysis includes media pieces which directly relate to the SIE-field and its actors under study:

- What were the main reasons/pegs for the media contributions?
- Which media (mainstream newspaper, internet platforms, You Tube, etc.)? Distinguishing e.g. between large and small media, and political orientation of the media

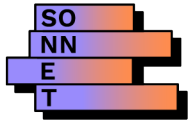
There are several databases that collect and store, for instance, newspaper articles that can be searched.

Historical research invariably relies on historical documents, as access to interviews with people who have experienced past events are limited and their memory might have faded. Archive research relates closely to document review; it differs in the use of archives contra single documents. An archive is a managed set of documents in a depository.

Both methods are useful to deepen the historical developments of the SIE-field, identify key events within the SIE-field, and provide background information to contextualise the SIE-field under investigation.

For more information on document reviews, please see:

- Prior, L. (2003): Using Documents in Social Research. London, SAGE



- Rapley, T. (2007): *Doing Conversation, Discourse and Document Analysis*, London, SAGE

5.1.2 In-depth interviews

Interviews as a research method are very pertinent to the development of SIE, SIE-field-actors and other field-actors within a SIE-field. Through interviews, involved actors tell their narratives of SIE-field developments over time (including field events and contestations) and their particular understandings of the ‘outside’ institutional environment. Interviews can give us specific insights on the relations between SIE-field-actors and/ or other field-actors in the field and/ or ‘outside’ institutional environment. Moreover, they can describe instances/ phases of institutional work to maintain, create and change institutions.

We will carry out a minimum of:

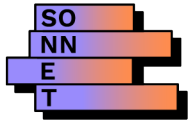
- Four long in-depth interviews (1-3 hours)
- Four shorter interviews (0.2-1 hour) to gain different perspectives on the case. For example, interviews might be supplemented by short ad hoc interviews at SIE-field events

In this sub-section, we outline some guidelines concerning: a) identification of the interviewees, b) arrangement of interviews, c) preparation for interviews, d) conduction of interviews, e) co-constructing innovation timelines (including actor network), and f) development of the interview check-list. Please carefully read each section even though you might be used to conducting qualitative interviews.

a) Identifying SIE-field-actors and other field-actors as potential interviewees

The exact number of interviews will vary from case to case, depending on the SIE-field’s size and complexity. However, the **principle of diversity** should be applied, so that a variety of perspectives are sought, wherever possible. This applies to selecting interviewees who have **different positionalities** with respect to the SIE-field. The following selection criteria can inform the process of identifying interviewees:

- A minimum of two SIE-initiatives (i.e. who work on SIE). These are ‘typical SIE-initiatives’ i.e. SIE-initiatives who are considered to be normal/ typical in the way they work on SIE. Moreover, they have been around for longer periods of time than other similar SIE-initiatives. They are able to generally recognise the SIE-field and have actively participated in its development. If suitable one of the SIE-initiatives should be located in a SONNET city (in which case interviews will be supported by WP2).
- Several other field-actors who intentionally and/ or unintentionally enable SIE developments within a SIE-field. These are ‘critical’ other field-actors enabling SIE, i.e. other field-actors who yield the most information about the SIE-field in relation to enabling factors for SIE. These can be, for instance, actors who enable SIE through sharing information and developing forms of networking, providing tools and resources, offering specific professional services, managing and evaluating funding programmes and/ or conducting advocacy work. These organisations have a good overview of the SIE-field and have been engaging in it for longer periods of time.



- Several other field-actors who intentionally and/ or unintentionally impede SIE developments within a SIE-field. These are ‘critical’ other field-actors impeding SIE i.e. other field-actors who yield the most information about the SIE-field in relation to impeding factors for SIE. These can be, for instance, actors who have influenced negatively the development of SIE (e.g. policies that do not allow for certain business models), inclusion of diverse actors in SIE (e.g. non-inclusive participatory processes), resource environment of SIE (e.g. funding landscape). These actors do not necessarily recognise the SIE-field or have known it for a long time, they are mainly identified as impeding the developments of SIE by SIE-initiative or other field-actors who enable SIE and/ or academic researcher who conduct research on SIE.

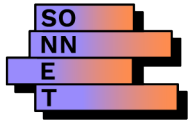
In addition to aspects of diversity of actors and their experiences and perspectives, you may also learn other things about the actors sequentially as you conduct your interviews. For instance, in the interview you might learn that there is an important **rift (lack of consensus) within the SIE-field**, which splits the SIE-field-actors and/ or other field-actors along certain lines. In this case, it would be beneficial to seek interviewees from different sides of the rift.

In terms of how exactly you decide ‘who to interview’ (or invite, as they may decline), there are different ways of doing this. One approach could be to obtain an organogram or use other sources to identify a set of individuals who encompass as much diversity as possible and then to go about **arranging the interviews in parallel**. Another approach could be to identify one interviewee to start with, and then ‘snowball’ through the interviewees. This approach of **snowballing** simply means to use each interview as an opportunity to identify subsequent interviewees and to reassess your ideas about who to interview overall. In practice, it is possible to combine these approaches, by making an initial list of potential interviewees, but arranging to interview them sequentially, so that you can adapt your selection as you gather more information about who’s who. And in the end, some individuals will simply not be available to interview, or not at a time/ place when/ where you are able to arrange an interview. So pragmatically, you will have to make a judgement call about how far you are able to go in order to get the interviews that seem the most promising.

b) Arranging interviews with SIE-field-actors and other field-actors

Try to set up face-to-face interviews (rather than telephone ones - whenever possible) as much as you can. This might be tricky as long most European countries are in lockdown. One thing to consider is that the SIE-field-actors and other field-actors might not recognise the term social innovation in energy, it might therefore be better to check on their website how they refer to their activities on SIE (e.g. community energy group and energy start-up) and use this term. Some information in the Participant Information Sheet (see Annex 3) can provide some inspiration for an initial telephone, face-to-face and/ or email contact when preparing your own point of contact.

When you arrange interviews, it is important to **consider aspects of the interview setting** that might bear an influence on its conduction (e.g. noise levels). Something to be aware of in the SONNET interviews is that many of the individuals that are likely to be of interest to us are also **likely to be time-poor and possibly resource-poor**. It is likely that many of them are volunteers rather than employees (i.e. they do not get paid for these activities), so will not necessarily be able to schedule their interview as part of their working week. Actors may have to fit an interview



around other employment, family and personal commitments. SIE-field-actors are often under-resourced, which places pressure on time and resources. Nonetheless, some interviewees may be inclined to go out of their way and sacrifice their needs in order to participate, whether due to politeness or because they believe their participation to be of value. Whilst we cannot prevent this and neither should we patronise them by doing so, we can make attempts to minimise the effort on their part, by asking them to **suggest times and places that suit their schedule and other needs**.

Remember, these interviews are likely to take at least an hour, and more often closer to two hours to complete. This is a substantial time commitment for your interviewees.

Practical suggestions for minimising risks when arranging interviews:

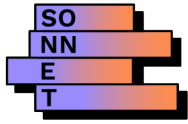
1. Risk of being overheard - find a place that is private
2. Risk of being interrupted or disturbed - ask colleagues not to interrupt, turn off phones
3. Risk of background noise - find a place that is quiet or take measures to minimise background noise
4. Risk of deferential self-censorship - invite interviewee to suggest a setting where they feel comfortable and at ease
5. Risk of overburdening interviewees through time/resource commitments involved in participation - invite interviewee to suggest a setting (time/place) that suits them; be clear about the time commitment and attempt to stick to it.

c) Preparing for interviews

Once you have arranged an interview, preparation is crucial. The two main tasks here are: (1) doing some **background reading** about the SIE-field-actor or field-actor and their initiatives or organisations' activities on SIE, and (2) creating an **initial timeline** of the SIE-field (including the development of the SIE, SIE-initiatives, SIE-field-actors, and other field-actors) (see section 5.1.2 subsection e) for the construction of the timeline), **adapting the topic guide** (see Annex 1), as required (e.g. translating the topic guide).

The background research will help you with rapport-building, prevent 'faux pas', and inform your efforts to adapt the topic guide. Adapting the topic guide is a step to consider if you feel that any of the questions that we have provided might not be appropriate in the given format. On a very basic level, many of you will need to translate the topic guide into your local languages. But the need to further adapt the questions could arise because of the style of language used - for instance, though we have tried to avoid using formal or technical terminology, it may feel necessary to exchange a word here or there in order to aid understanding.

If/when you do adapt the topic guide, please bear in mind that **we have tried to formulate 'open' questions that aim to help the interviewee to get into a mode of telling long narratives** (rather than providing short answers). Therefore it is important not to convert these questions into closed versions (i.e. that presuppose a yes/no answer).



Even if you adapt the topic guide, please make sure that you will be able to answer all of the major and minor empirical research questions (as outlined in section 3) with the data collected.

d) During the interview (technique)

The manner by which a researcher conducts an interview can have a substantial impact on the outcome. The main things to consider here are building rapport with the interviewee, putting them at ease, ensuring that you brief them well, framing questions openly, avoiding leading the interviewee, probing effectively to elicit more detailed responses, and adopting an open and reflexive manner.

An important first step to take in this regard is introducing the project effectively. The following is provided as a guide, rather than a script to be read out verbatim.

Short introduction to the project

Thank you for your willingness to participate in the EU-funded research project, “SONNET”, on social innovation in energy transitions. **My hope is that this will be a pretty relaxed and informal interview** - I have prepared a few questions, but only for my own guidance. **There is no such thing as a right or wrong answer.**

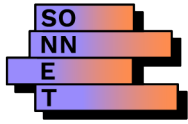
We are interested in understanding the aims and activities of your ‘INSERT name of initiative/ organisation’. We would also like to know how you have interacted and worked with other actors/ initiatives/ organisations (e.g. collaborators, counterparties, partners) within ‘INSERT name of SIE and/ or SIE-field’⁷ over the past 5-10 years, in particular, the types of alliance, activities and narratives that have been created, key events, etc. along the way, and enabling and impeding factors to achieve certain aims. Moreover, it would be interesting to hear about broader political, social and cultural developments that have influenced your initiative/ organisation and ‘INSERT name of SIE and/ or SIE-field’.

In general, I would like to hear about your experiences and perspective of being involved in ‘INSERT name of SIE and/ or SIE-field’.

The text might need to be translated and/ or adapted depending on the types of interviewee.

Once you have introduced the project, a next step to take is **checking that the participant has read the participant information sheet and signed the consent form** (see Annex 3, ethics deliverable 9.1 and 9.2). These items should be **provided in advance of the interview** and participants should be encouraged to return their signature in advance, for instance by email or post, if at all possible. Even though they may say that they have read and signed the consent form, it is a good provision to ask them again if they are happy with audio-recording and to take some time to explain it (especially our default policy of pseudonymously quoting interviewees in terms of their organisational affiliation and role).

⁷ When engaging with participants in the study, WP3 researchers need to find their own term for the SIE and SIE-field (depending on the language and national context). It is about finding a term that participants can recognise but is also close to our interpretation of the SIE and SIE-field. It is up to you whether it makes more sense to find a term for the SIE and/ or the SIE-field. If you are unsure about it, please get in touch with the WP3 leads.



Informed consent procedure

Within SONNET, all case study participants must be approached through the Informed Consent Procedures. All participants must receive a Participant Information Sheet and a Consent Form. Two copies of the Consent Form need to be signed (one for the project and one for the participant), upon voluntary agreement, prior to participating in the research. Interviews can only be recorded with the express permission of the interviewees. Therefore, informed consents must ask for permission to be voice-recorded, and eventually to be pseudonymously quoted (safeguarding the right of the interviewee to verify the accuracy of quotes that are being used, and to know how the interview information will be used, according to the European Court of Auditors (ECA) (European Court of Auditors, 2013). The procedure adopted to guarantee the participant's privacy needs to be provided. All of this is covered in the Participant Information Sheet and Consent Form. However, it is crucial to ensure that participants are competent to understand the information they are given and are fully aware of the implications of their consent. In respect of this, the 'consent forms' and 'participant information sheets' are to be translated to the languages of the countries where the research will take place.

Once these steps have been completed, it is time to **start the interview in earnest**. In an ideal world, the case researchers would be able to conduct the interview without needing to refer much to the topic guide or other notes, as this enables a more **attentive, active-listening** manner towards the interviewee, which is likely to build trust and confidence. However, it is likely that they will need to refer to the topic guide a few times during the interview - and this is perfectly acceptable and probably advantageous (in terms of ensuring all topics are covered). On this point, it would be beneficial for case researchers to **cover all of the 'open' questions** (or at least most), though it is up to them to decide in which order they ask them, and how they use the 'probes/prompts'.

As you will see from the topic guide, each 'open' question provides some '**probes/prompts**' that are relevant to the topic. These are possible follow-up themes that you can use to explore the 'open' questions in greater depth. Some more general ways to probe and prompt might include:

To elicit more descriptive detail on a topic:

"Could you tell me more about it?" or

"Earlier you said you [x], could you tell me a bit more about it?" or

"Could you give me an example?"

To elicit an explanation or motivation for a comment:

"What makes you say that?"

To switch topics:

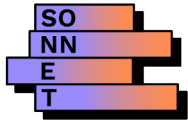
"We've been talking about [x], maybe we can talk about [y]"

To broaden the frame of reference:

"Is there anything else?"

Another way to prompt is by making use of silences. As an interviewer, it can be tempting to jump in and fill silences with more questions or probes. However, sometimes the practice of **allowing the silence to linger** can be a more effective way of eliciting a meaningful response, as it enables the interviewee to digest questions, make connections and formulate their ideas.

Within the topic guide, we have not included 'direct' questions about **socio-economic and socio-cultural issues**. Nonetheless, we would like to see whether interviewee(s) mentions these issues



by themselves (e.g. fuel poverty, gender, etc). If they do so, the case researcher should **pick them up on these topics** and explore these issues deeper with the interviewee.

Once all the topics have been covered and/ or you are getting towards the end of your allotted time for conducting the interview, it is important to **ask them if they have any questions for you** (the case researcher). Out of respect, it is advisable to leave at least five or ten minutes for this. Then, once you have attempted to answer their questions, it is time to **thank them** for participating in the study. If you have not debriefed them yet, now is the time (see under f) for more information).

For more information on in-depth interviews, please see:

- Hollway, W. and Jefferson, T. (2000), *Doing Qualitative Research Differently: Free Association, Narrative and the Interview Method*, London: Sage.

e) During the interview (co-constructing innovation timelines and critical points/ phases)

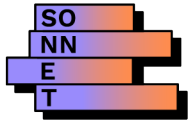
The topic guide provides open questions that, in combination, should cover all aspects of the data that is required for writing up and constructing the three case study reports (see section 6.1 case study reports) and the country report (see section 6.2 country reports). As already mentioned, exactly how these questions are used (and in which order) is up to the case researchers and case co-ordinators to decide. However, please keep in mind that we want to be able to answer all of our major and minor empirical research questions through collecting and analysing the case study data. It is therefore key to cover all of the themes and gather enough depth on them. Moreover, two aspects in particular deserve a little more guidance - that is the task of co-constructing innovation timelines and exploring the critical points/ phases linked to conducting institutional work.

****Co-constructing the innovation timeline (including map of actors)****

As part of each case study report, innovation timelines (including map of actors) are developed for each SIE-field (including SIE, SIE-initiatives, SIE-field-actors and other field-actor developments over time). These are visual representations of the historical development of the SIE-field from its inception to now. The overall guiding questions for the co-construction of the timeline during the interviews is:

‘If you look back, what would you say have been key points and phases in the emergence and development of the *‘name of SIE/ SIE-field’?*’ (Based on initiatives/ organisation’s perspective and experience)

An innovation timeline (and map of actors) is relevant for our work as it establishes an overview of important field events (and contestations), external shocks and societal trends, actors (and their alliances/ networks/ collaborations), inter-field interactions, and other factors that influence the SIE-field grounded in the ‘outside’ institutional environment. Taken together this



overview helps us to understand the emergence, development and institutionalisation of the SIE and SIE-field through time. In order to construct the innovation histories of each SIE-field, *it is a requirement that case researchers co-construct visualisations of the timelines during the interviews* (for details, see box below).

The actual timeline should map the following items:

- Field events (and field contestations)
- Key actors (SIE-initiatives, other SIE-field-actors and other field-actors & alliances, networks, collaborations between actors) linked to, for instance, certain events, contestations, etc.
- Key institutions (that make up the ‘outside’ institutional environment) linked to, for instance, certain events, contestations, etc.
- External shocks and societal trends
- Inter-field interactions
- Individual/ collective activities to change or maintain current conditions (instances/ processes of institutional work)
- Phases in the development as identified by the interviewees
- Any other item you deem important

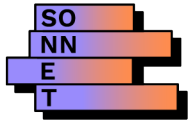
While some of these points are easily linkable to specific date/names, others are more difficult to connect and need to be mapped more as dots/lines.

Constructing the innovation timeline (and map of actors) is a cumulative process

- Firstly, the researcher creates a timeline based on document analysis (this timeline is retained for the moment and can be used as knowledge for prompts during the in-depth interviews).
- Secondly, the researcher conducts the first longer in-depth interview and co-creates a timeline from scratch with the interviewee. Researcher shows and verifies her/ his own timeline after interviewee constructed her/ his own.
- Thirdly, the researcher continues this process with the other longer in-depth interviews (building up the combined timeline over time).
- Fourthly, the researcher conducts a shorter in-depth interview and takes one combined timeline to the shorter in-depths interviews for validation and deepening.
- Fifthly, the researcher continues with the process of building up the combined timeline as part of and after the in-depth interviews.

What method is exactly used to **co-construct the innovation timeline (and map of actors) during the interview** is open to case researchers to decide, or to negotiate with interviewee. This could mean using a whiteboard and marker pens to draw out a timeline together, either with the interviewee holding the pen, or with the interviewer doing the drawing. Rather than using a whiteboard, pieces of paper could be used, and rather than using pens to write onto the paper, post-its could be used. If the interview is **conducted online due to the Covid-19**, it would be possible for the researcher to open up, for instance, a PowerPoint slide with some pre-arranged icons/ boxes and share the screen, and then to ask the interviewee where events, etc. should go to construct the timeline. Another option would be to verbally ask the interviewee about exact dates and names of, for instance, events so that the researcher can draw the timeline during the interview. The timeline can then be shown to the interviewee at the end of the interview or send to them after the interview so that they can verify/ change it.

The **map of actors** can be combined with the timeline. Whenever key event, shocks, etc have been identified for the innovation timeline, questions about the actors who were involved as well



as their linkages can make up the actors map. In the actual mapping, you can use for example different shapes, sizes or proximity of actors to denote importance or other issues. With regards to the relations, you can think about the following kinds: e.g. cooperation, exchange, conflict and competition. These can for example be denoted through different colours. Influence between actors can be visualised using arrows and varying with their sizes and shapes. The actual actor-map can include the following: Names of the ‘actor(s)’, relation between actors, and any kind or quality of the relation that you deem important, e.g. influence between actors.

In all cases, it is *crucial that a record of the innovation timeline (and map of actors) visualisation is retained for analysis*, either by photographing, saving or otherwise retaining it (or a copy). We recommend that this process of co-constructing the timeline as a visual record is accomplished early on in the interview, so that subsequent questions and responses can be related to the timeline, *allowing it to be refined and elaborated iteratively* as the interview progresses. In this sense, an initial attempt at creating the timeline could result in quite a sketchy outcome that provides a framework for further populating as you proceed with other questions.

For a possible example of innovation timelines see (please consider that these timelines are examples of timelines for individual networks/ initiatives rather than SIE-fields):

<https://grassrootsinnovations.files.wordpress.com/2012/09/brighton-energy-coop-innovation-history1.pdf>; page 2 & 3;

http://www.transitsocialinnovation.eu/content/original/Book%20covers/Local%20PDFs/218%20TRANSIT_CaseReport_ImpactHub_Final_2015.pdf; page 22.

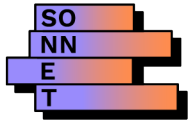
For more information on innovation histories refer to the following publication (please consider that SONNET does not follow all aspects of this method):

- Douthwaite, B. and Ashby, J. (2005) Innovation histories: A method for learning from experience. ILAC Brief No.5 Rome: Institutional Learning and Change (ILAC) Initiative.

****Examining the critical points/ phases linked to institutional work****

In SONNET, we draw on the critical turning points approach (CTP) for our case study work. Rather than examining critical turning points (CTP) in the innovation journeys of social innovation initiatives as moments at which initiatives undergo or decide for change-of-course (see Pel et al. 2015), we are interested to explore critical points/ phases of institutional work. Institutional work refers to activities of SIE-field-actors and other field-actors that aim to create, maintain and transform institutions (based on Lawrence and Suddaby 2006). These are, for example, attempts to influence policy makers and the general public through direct lobbying, research reports, positioning papers, advertising, and the setting of technical standards and/ or influence informal institutions, such as values, norms, binding expectations, common beliefs, habits, and routines, among the wider public (Arenas 2017).

From the topic guide, the following question in particular relates directly to **identifying and exploring these critical points/ phases of institutional work**:



‘We have talked about individual/ collective activities surrounding ‘*name of SIE/ SIE-field*’. Could you identify 3-6 important collective activities that you feel have had a ‘major’ influence on ‘*name of SIE/ SIE-field*’ and tell me about them in more depth?’

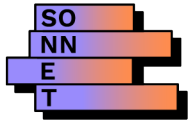
Some interviewees may provide less clearly defined accounts of critical points/ phases, referring to more prolonged or drawn-out processes - e.g. ‘the shift in social norms around heating of local residents over the summer’. In this case, try to decide with the interviewee a particular moment/ point in time. It is easier to make the critical point/phase about actual moments rather than about too long periods of time. The interaction between particular point in time and longer periods can be explored through the prompts attached to the topic guide questions that are outlined below.

We aim to gather a minimum of eight critical points/ phases for each SIE-field⁸ (make sure it is a variety of different activities related to maintaining, creating and transforming institutions). For instance, during the first interview, you could ask the interviewee to name three to six critical points/ phases (rather than each interviewee for all six). During the supplementary interviews linked to the SIE-field, you could probe whether there are additional critical points/ phases and explore them in greater depth. The critical points/ phases might fall together with some of the key events identified for the innovation timeline (discussed earlier in during the interview). This is okay, this time; it would be about examining the critical points/ phases in more detail.

The **following prompts**, which are included in the topic guide in Annex 1, can be used to substantiate the details (the prompts are adapted from the TRANSIT work on CTPs - see Pel et al. 2015):

- What did this *individual/collective activity* consists of (e.g. advocacy or networking), and when did it happen? Who has organised it and why? Who was involved? Who was not involved but should have been (why)? What have been the aims? (Content)
- How did the *individual/ collective activity* come about? What (and who) did enable and/ or impede the *collective activity* (how)? How was your ‘*name of initiative/organisation*’ involved? (Co-production/ enable & impede factors)
- To what extent did the *individual/ collective activity* involve disagreements? What were these about, and who was involved? How (if at all) was it overcome? Changes to power relations? (Contestation)
- How did the *collective activity* influence the development of ‘*name of SIE/ SIE-field*’? Who benefitted (and who did not) (how)? Which important later events were evoked by the *individual/ collective activity* and when did they occur? (Anticipation/ beneficiaries)
- Did this *collective activity* achieve its aims? To what extent did these *individual/ collective activities* influence the wider public, media and policy? Influence on norms, beliefs, ‘mainstream practices’, etc.? (Achievements)
- Did this *individual/ collective activity* have any (positive/negative) unintended and/ or side-effects? If so which? (Achievements)

⁸ Please try to examine a minimum of eight critical points/ phases. This might not be possible for all of the fields. For example, some SIE-fields might not have a very long history. If there are adequate reasons for not exploring eight critical point/ phases per SIE-field, it is absolutely fine to investigate less. Please remember that not all critical points/ phases need to be examined with each interviewee.



Please read deliverable D1.2 before conducting the fieldwork. It would be good to understand the main concepts (e.g. institutional work) before carrying out the work. This way each researcher knows what we aim to investigate.

f) After the interview (debriefing procedure)

After the interview has finished it is time to explain the **debriefing procedure**. It is an ethical requirement that we debrief interviewees at some point during the interview. This entails taking a little time to explain our procedures for providing interviewees with copies of case study reports, and eliciting (and incorporating) their feedback within final outputs. It can also include providing interviewees with a ‘debriefing sheet’, so that they have a written record of this information - though this aspect is optional. For more information see section 6.3 on ‘consulting participants’, and Annex 3 for a template debriefing sheet.

Debriefing procedure

At the end of the interview (or at the beginning if interviewees prefer), participants must be debriefed. The debriefing procedure is grounded in:

- a) Explaining that their interview transcripts/ written summaries will be sent to them so that they have the right to veto information that should not be made public.
- b) Explaining that they have the right to withdraw any or all of the data that they have provided, and they do not need to provide a reason for doing so.
- c) **(Optional)** Explaining that there is a possibility to see the case study reports if the interviewee would like to see them. Bear in mind that case study reports will be prepared in English for the EU deliverable. If the country team is able to provide a version of this in their local language, then it can be provided by email/post. However, interviewees could alternatively be asked whether they want to see the final report written in English, with a researcher going through some of the sections with them.
- d) Thanking them for their participation.

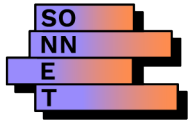
If used, the debriefing sheet is also to be translated into the languages of the countries where the research will take place.

g) Interview checklist (practicalities)

Conducting interviews means being prepared in a very basic practical sense too. As it is easy to overlook these aspects when there are so many other, more complex considerations involved in the interview process, we have provided this checklist as a practical support.

Practical things to remember:

1. Tape or other audio recorder, microphone, batteries and blank tapes or disks (if you are planning to audio-record the interview).
2. Pencils, rubber, sharpener and (ideally large) note paper (for visualising the timeline through annotated drawings, and if you are planning to take written notes).



3. Draft timeline based on document review (and previous interviews).
4. Camera to take photographs of any drawings and annotations that are produced in the interview, but which the interviewee would like to keep hold of.
5. Topic guide and any other sections of this document that you might like to refer to during the interview.
6. A note of the interview time and location, as well as the interviewee's contact details in case of travel delays or other last minute problems.
7. Information sheet, consent form (x2) and debriefing sheet (for the interviewee - though one copy of the consent form must be signed by the interviewee and returned to the researcher before the interview is concluded).

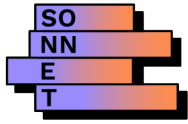
5.1.3 Participant observation

Observation generally refers to a process whereby a researcher observes groups of people or individuals, as they carry out specific activities that are of interest to the researcher and/or within a setting that is of interest to the researcher. The researchers make notes about their observations. **'Participant observation'** is a form of ethnographic observation during which the researcher participates in the activities and/or the setting of interest, whilst making their observations. Some scholars believe that participant observation is the only form of observation possible, arguing that it is impossible for the researcher to be present without having an influence on either the activities, the setting or the people and relationships that unfold in their presence.

Within SONNET, we will be doing a form of participant observation wherein the case researchers participate in events that are linked to the SIE-field under study, in order to enrich and triangulate the data derived from interviews. Case researchers will be making observations about the activities, the setting, the people and the relationships that they encounter. This could include attending *public events*, such as conferences, exhibitions, or workshops, so long as they involve actors linked to the SIE-field under study. Given Covid-19 there may also be (more) opportunities to observe potentially nowadays offered digital formats, such as webinars, or other virtual events organized by SIE-actors and other field-actors.

In terms of the nature of the observations that we will be aiming to make, these include **both describing and interpreting** observed actions, as they relate to the activities, the setting, the people and the relationships of interest. In this way, participant observation 'accurately describes observed social actions and *assigns purpose and intentionality* to these actions, by way of the researcher's understanding and clear description of the *context under which the social actions took place*' (Ponterotto 2006). As the primary motivation for doing participant observation is to enrich and triangulate the data derived from interviews, case researchers can **use the interview topic guide** as a framework for guiding their observations, as well as the **observation guide**, which is provided at the end of Annex 1.

Participant observation is expected to happen only in an overt and non-intrusive manner. If the researcher joins a closed meeting carried out by a SIE-initiative, it might be a good idea to make people aware of the presence of the researcher and inform them about the purpose of the data collected (and whether it takes the form of notes, sound recordings, or visual materials). If it is a



public meeting, such introduction might not be necessary but it would still be advisable to be open about the researcher's role at the event. Interesting is the use of photography, which needs to be accompanied by text explaining the relevant context (if people are visible on the photos, they might need to give their consent for the image to be used - see consent form in Annex 3). Please be aware of the ethics requirements when conducting the participant observations.

For more information on participant information, please see:

- Lynne, H. and Mulcock, J. (2005). *Anthropologists in the field: Cases in participant observation*. Columbia University Press.

5.1.4 Depth of research

We have already provided some indication of the depth of the research. It is difficult to generalise how much data collection is necessary to ensure an appropriate basis for answering the empirical research questions. The following numbers and approaches should give some indication on the 'minimum' depth that is expected as part of a SONNET case study. We also outline a possible process of conducting the data collection. Keep in mind that this only is an indication. Each national team is responsible for their own time management and planning of the case study work.

A minimum amount of data collection for each case study could look like this:

- Review of 13 documents linked with the case study
- Conduct four long in-depth interviews (1-3 hours)
- Conduct four shorter interviews (0.2-1 hour) to gain different perspectives on the case. For example, interviews might be supplemented by short ad hoc interviews at SIE-field events
- Try to be present at least at 2 events and/ or workshops linked to the case study to conduct some participant observation (for a minimum of 10 hours in total)

This is how you could *divide up your 25.5 days/ 1.5 person/ months (approx.) to conduct, analyse and write up a case study*:

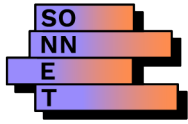
- Initial research about the case study: 4 days
- Scheduling/organising fieldwork: 1 day
- Four in-depth interviews (plus preparation): 5 days
- Four short interviews: 2.5 days
- Participant observation at 2 events, including field notes: 2 days
- Any effort required towards transcription and/ or interview summaries, including from memory and checking with interviewees: 2 days
- Coding/ analysis/ interpretation/ writing up: 9 days

Each team has 0.5 person/ months to produce the country case report.

These numbers are just an indication of a potential split of effort, and this split might be adjusted for a variety of reasons, including the development of COVID-19 in each country.

5.1.5 Data storage

Before obtaining any research data, participants must agree on sharing information about their activities, experiences, and perceptions. Throughout SONNET's participatory interactions, most



participants will be responding within their ‘professional’ capacity - only ‘professional’ opinions will be collected. Nevertheless, some personal data will be collected. SONNET’s gathering of personal data complies with the requirements of current data protection legislation. As defined in the EU General Data Protection Regulation (GDPR, 2016/679), “personal data” refers to any information, private and professional, which relates to an identified or identifiable natural person, according to Article 4(1) GDPR, 2016/679.

As a default, SONNET partners will use their secure institutional servers⁹ for storing **personal data** (e.g. email of person) and **research data** (e.g. interview transcripts) in separate locations, so they cannot be linked.

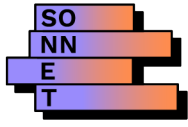
Personal data will be kept confidential through adequate pseudonymisation and encryption. To do that, each participant will receive a code number. Moreover, personal background-related data will be stored separately from research relevant data. Only the person in charge of the study (i.e. the case study coordinator for each country) will have a list with names and codes to allow participants to withdraw the data at any point in time during the study. These lists are stored securely in a separate location from research data. These are routine procedures for privacy and data protection.

Importantly, personal data of participants that will be collected and stored during the project will be destroyed at the end of the project, unless otherwise noted in the consent form. Personal data will remain confidential and will not be shared with third parties. Moreover, the SONNET team will not transfer personal data collected within SONNET between countries, nor outside the EU (apart from within the team for project purposes).

Regarding the **research data**, data will be stored and backed up using common practices for the storage and backup of small and medium-sized datasets in cloud-based environments. For this, the project coordinator has set up a Fraunhofer owncloud solution to which all project researchers (academic and city partners) have individual, password-protected access. All research data can also be kept at institutional servers. The case study reports and deliverables attached to WP3 will be made available (indefinitely) on Zenodo, or - if no consent has been granted for making the data openly accessible or if it cannot be made pseudonymous - will be stored for 10 years on secure institutional servers of the SONNET team.

More detailed guidance on the storage of data can be found within deliverables D9.1 and D9.2 (ethics) and D8.4 (data management plan).

⁹ Apart from storing data on SONNET partner’s institutional servers, there is also the option to use the SONNET owncloud in exceptional circumstances. This is a secure location managed by the project coordinator Fraunhofer ISI for the purpose of conducting the research project.



5.2 Data analysis

Data analysis consists of examining, categorising, tabulating, and/ or recombining qualitative evidence to address the empirical research questions of the study (Yin 2003). Each country team will conduct the data analysis for their individual case studies to be able to write up three case study reports and the country report (a structure for each report is provided in section 6.1 and 6.2). The country report will broadly consist of the country context, the three case studies and a cross analysis of the three case studies (i.e. SIE-fields) in the national context. Please feel free to look at the structure of the case study report and country report before reading this section (see section 6).

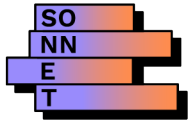
Once we have collected the data, we need to analyse the data before we write it up in the case study reports. Usually, this is not a linear, but often a rather ‘messy’ process where we go back and forth between collecting data, writing parts of the report, going back to our data, possibly holding another interview (Schwartz-Shea and Yanow 2012). We will try to go through the **conduction and write up of the first case study as much in parallel as possible** so that we all have similar expectations of how they should be conducted and the case study report should look like. The next two case studies can be conducted in your own speed.

This section introduces the specific types of analysis that WP3 researchers will engage with as part of producing the case study reports and country report: namely the conduction of a **thematic analysis** (see section 5.2.2), the **development of a timeline** (including actor map) (see section 5.2.3), and conducting the **cross-case analysis** (section 5.2.4). During the data analysis, we have to consider that we analyse **not only multiple case studies but also embedded ones**.

The SPRU team (with support by the DRIFT and ISI team) will be responsible for conducting the **comparative meta-analysis** across SIE-fields and countries (see section 7). This analysis will be based on the country reports produced by the country teams (rather than interview transcripts). This section outlines the data analysis carried out by the country teams.

5.2.1 Transcription and note-taking

Ideally, each interview should be transcribed verbatim (please try to do this as much as possible, seeing that other WP teams will also analyse the same interviews). However, partial transcriptions and detailed interview summaries are an alternative option that could save some time and/or budget, so we leave it up to the country teams to decide how much of the interview is transcribed and by what method. Moreover, we realise that transcription might not always be possible, for instance if permission for audio recording is not granted. In this case, it is good practice to have an additional person present at the interview, who is dedicated to note-taking. In this way, detailed and comprehensive notes can be taken. In absence of an additional person, the interviewer should attempt to take brief notes, which are then refined immediately after the interview is finished, in order to add as much additional information from memory as possible. In addition to the interview transcripts/ notes, we will have collected documents and participant observation notes.



5.2.2 Conducting a thematic analysis and developing a case description

High quality analysis requires researchers to attend to all evidence and show adequate concern for exploring alternative interpretations (Yin 2003). The first stage of the data analysis will take the form of a full **thematic analysis** (Boyatzis 1998) of the embedded case studies. We will create an index of codes to be able to code the collected empirical data that will consist of deductive and inductive codes. Moreover, we have provided a structure of the embedded case study report i.e. **developing a case description - ‘a descriptive framework for organising the case studies’** (Yin 2003:114), including chapter outlines for the descriptive (historical) account and explanatory boxes based on SONNET concepts that will guide the analysis of the embedded case studies (see section 6 for a preliminary structure).

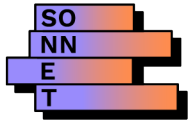
We anticipate that the analysis of the data will follow a number of different approaches, adopted by the different researchers, for a variety of reasons. For instance, analysis can be done by hand, or it can be augmented by a range of different digital tools, from MS EXCEL to QRS NVIVO/ Atlas.ti among others. The software will help to categorise large amounts of narrative text (derived from the interviews, participant observation and documents collected). Although we will not prescribe what type of digital tools’ researchers should make use of, please consider that we are likely to share the content of individual codes with other WP teams - make sure that you will be able to do this. Moreover, as we want to conduct a comparative meta-analysis, a shared index of codes for the analysis and common structure of the reports will therefore be necessary. We will outline some of the shared steps below.

As an initial step in this process, the **WP leaders will provide a ‘deductive’ index of codes based on SONNET’s conceptual work**. This ‘deductive’ index of codes will be shared with all of the WP3 researchers in June 2020. We will use these deductive codes to ‘hone in’ on parts of the data that are likely to provide answers to our core research questions.

1. WP3 leads send around ‘deductive’ index of codes;

Alongside of this ‘deductive’ index of codes, **WP3 researchers conduct their first embedded case study of a SIE-field and create an ‘inductive’ index of codes** out of a first set of in-depth interviews, observational notes and case documents (derived from the document review) to allow themes to emerge from the data that are outside of the scope of our conceptual toolkit. **During a WP3 online team call, we can discuss the ‘deductive’ and ‘inductive’ indexes of codes:** 1) Adding and subtracting codes from the ‘deductive’ index of codes and 2) Sharing ideas for ‘inductive’ codes and discussing whether it makes sense to create a shared ‘inductive’ index of codes. The WP leaders will subsequently circulate the updated index of codes.

2. Each WP3 country team familiarise themselves with the collected research data;
3. Each WP3 country team create their own ‘inductive’ index of codes;
4. WP3 online team call: ‘deductive’ and ‘inductive’ indexes of codes are discussed;
5. WP3 leads send around a new version of index of codes (WP3 country team are free to add more of their own ‘inductive’ codes).



The next step is for all the WP3 country teams to **code the remaining interviews, observational notes and case documents** from their first embedded case studies using the updated index of codes, as follows:

6. Code all the interviews, observational notes and case documents, making use of the updated index of codes (please consider that we deal with embedded case study with several units of analysis - see box below).

Analysis of embedded case study

The embedded nature of this case study reflects the nested nature of understanding the SIE-field within an institutional environment, including the following sub-units: SIE, SIE-initiatives, other field-actors. In an embedded study, the analysis of all data needs to consider the analyses of each sub-unit (within sub-unit: SIE, SIE-initiative, other field-actors, SIE-field), overall embedded case study (across the units) and context in which they sit (context: institutional environment). We will try to include the analysis of these units of analysis in our index of codes.

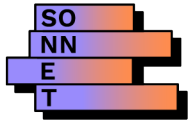
After all interviews, observational notes and case documents have been coded for one case study; the WP3 country team can delve even deeper in the analysis of the collected empirical data by looking across and within the codes and considering SONNET's conceptual work (as outlined in deliverable 1.2). This step will be grounded in pattern matching and explanation building. **Pattern matching** involves an attempt to link patterns, where one can be a conceptual pattern (e.g. how actors conduct institutional work) and the other is an observed one (derived from the empirical data i.e. descriptions of institutional work in the in-depth interviews). The conceptual pattern can derive from 1) a conceptual framework, 2) working propositions (i.e. similar to hypothesis developed by researchers), and 3) a combination of the two (Yin 2003). Within SONNET, we have outlined our initial conceptual framework (i.e. building blocks, see D1.2) and will in due course together develop working propositions (i.e. tentative and preliminary statements about different aspects of SIE diversity, processes and contributions) in WP1. Both will guide the analysis of our empirical data by providing conceptual patterns to be investigated in the collected empirical data.

Next steps working propositions

As part of deliverable D1.2, the WP1 team has outlined the importance of working propositions based on our conceptual building blocks (including the ones relevant for WP3). These will be developed through an online workshop with the consortium in due course. These propositions are to be based on the literature review, our research questions and conceptual work. They will be the conceptual patterns that guide the case study collection and analysis and help to organise the case study, define alternative explanations to be examined and focus our attention on certain data (rather than other ones) (as outlined by Yin 2003).

In addition, the WP3 country teams will look for observed patterns within the collected empirical data during the data analysis. It is the correlation between these two types of patterns that are of interest to SONNET and will help us to answer our empirical research questions. The following steps will make up our pattern matching 'exercise' for the analysis:

7. WP3 researchers continue with the conduction of the analysis within each code and across the codes, looking for patterns within the collected empirical data and making sense of these observed patterns;



8. WP3 researchers take into account SONNET's conceptual framework and working propositions as conceptual patterns and examine how they 'play out' (or not) in their collected empirical data;
9. WP3 researchers look at the correlations between observed and conceptual patterns in relation to our WP3 empirical research questions.
10. WP3 researchers write up the first embedded case study report - see embedded case study structure in section 6.

These steps can be discussed in more depth during the WP3 online team calls.

We will conduct an internal review of the first case study reports so that we all become more confident about the data collection and analysis (see section 8 - the work plan). For the **subsequent two embedded case studies**, WP3 country teams will skip straight to code deployment and pattern matching, but WP3 team calls will be used to ensure on-going review and refinement of the case study reports and index of codes as required.

The next step, **explanation building** 'is a special type of pattern matching... the goal is to analyse the case study data by building explanation about the case... To "explain" a phenomenon is to stipulate a presumed set of casual links about it' (Yin 2003:120). The following steps will make up the explanation building 'exercise' for the analysis:

11. WP3 team looks at initial findings against our working propositions. The propositions get revised in accordance to our findings. (This step can also be enhanced through creating rival propositions and/ or explanations and 'test' them against the findings.)
12. WP3 team repeats the process as many times as needed.

These steps will be discussed in more depth during the WP3 online team calls.

For further guidance on coding with inductive and deductive themes, the following resources may be helpful.

- Bazeley, P. (2007). *Qualitative data analysis with NVivo*. London, Sage.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. London, Sage.
- Coffey, A. and P. Atkinson (1996). *Making sense of qualitative data analysis: Complementary strategies*. Thousand Oaks, Sage.

5.2.3 Creating combined innovation timelines (and map of actors)

For each SIE-field that is studied, several **innovation timelines (including map of actors)** will have been co-constructed as part of the document review and in-depth interviews (i.e. the number of timelines depend on the interviews conducted). The WP3 researcher might also be able to map the critical points/ phases linked to conducting institutional work onto the timeline. In order to construct **innovation histories** for each SIE-field, these timelines will have to be combined and prepared for the case study report, to whatever extent is possible without suppressing too much of the data (see section 5.1.2 e for the individual steps). Figure 9 and 10 show an innovation timeline and actor map that can provide some inspiration about how to visualise the SIE-field

innovation timeline (including a map of actors). We will try to combine the timeline and map in our case study reports. Please consider that the below innovation timeline and actor maps are of individual initiatives (rather than SIE-field).

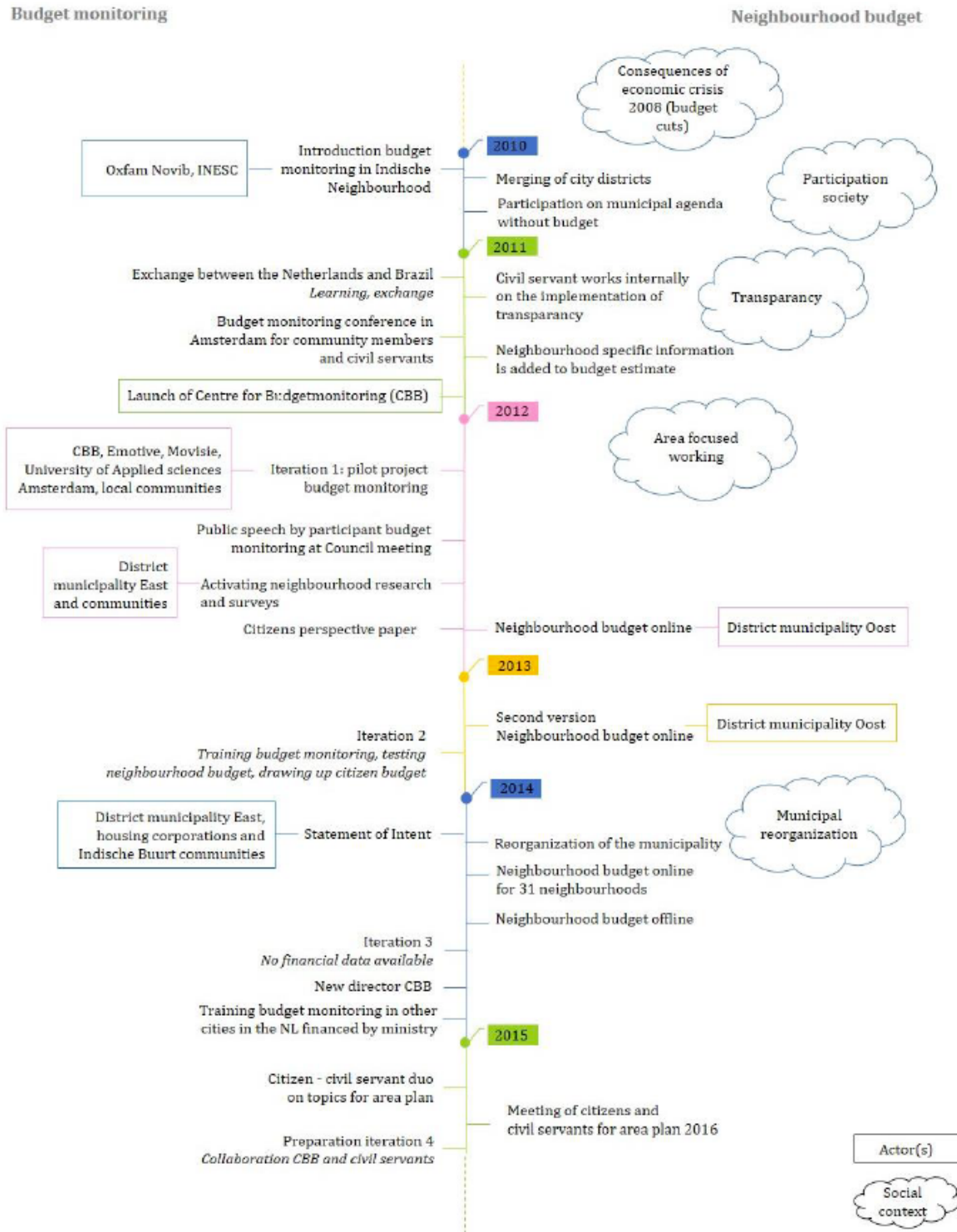


Figure 11: Example illustration of a timeline (Source: Cipolla et al. 2015)

Be creative in drawing up the innovation timeline (and actor map) - all of this information will be helpful when you have to visualise the innovation timeline for the case study report. You could use Adobe Photoshop or InDesign but also PowerPoint. The WP3 leads will also provide a template. Visualisations are very valuable for communication and understanding developments over time, it is however very challenging to provide a general guideline for how to draw a timeline, which can capture necessary nuances across all cases. Make sure somebody who knows very little about a SIE-field can make sense of the innovation timeline that you develop for the report. Please also include some explanation with your timeline outlining your choices with regards to the items that you display, thus a number of reflexive considerations should be made on the accuracy of dates, and which time-frames were important for the development of the SIE-field.

Figure 5.12: Actor map of participatory budgeting in the Indische Buurt⁷⁸

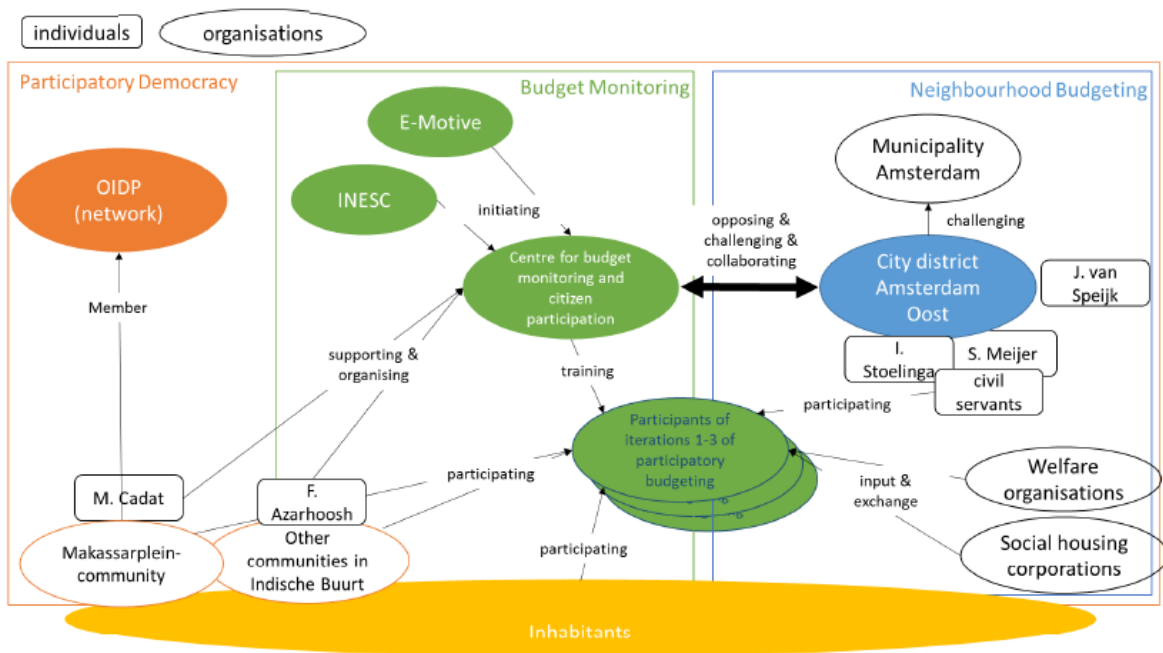
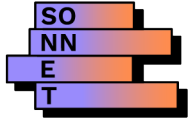


Figure 12: Example illustration of an actor map (Source: Cipolla et al. 2015)

5.2.4 Cross-case analysis of three SIE-fields in each national context (to be included in the country report)

As part of the country report, WP3 researchers will also have to conduct cross-case analysis between the three embedded case studies (i.e. SIE-fields) within their country. To conduct the cross-case analysis, we will draw on similar strategies as outlined in section 5.2.2, i.e. pattern matching and explanation building, whilst also making use of our refined working propositions. During the cross-case analysis phase, we will seek to build ‘abstractions across cases’ (Merriam 1998:195) and a general explanation that fits each of the individual cases, even though the cases will vary in their details. Cross-case pattern matching and explanation building allow us to see ‘processes and outcomes that occur across many cases, to understand how they are qualified by local conditions, and thus develop more sophisticated descriptions and more powerful explanations’ (Miles and Huberman 1984:172). In autumn/ winter of 2020, we will create a uniform

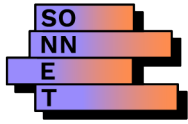


framework to conduct the cross-case analysis. For now, please keep in mind our empirical research questions for WP3, the structure of the country reports, and working propositions & initial conceptual framework (see deliverable D1.2) that all guide our data analysis.

Once the work of combining the individual innovation timelines into ‘co-constructed timelines’ and the rest of the case analysis (single and cross-case analysis) is completed, there is one more significant step writing up the embedded case study reports. Further guidance on the **structure and content of the embedded case study report** (writing up the individual cases) and **country reports** (comparing the individual cases) is provided in the next section.

For further guidance on coding with inductive and deductive themes, the following resources may be helpful.

- Yin, R.K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks.



6 PREPARING THE CASE STUDY REPORTS

As part of task T3.2 of this work package, each country team will produce a **country report (D3.2)** including the **three case study reports and a cross-analysis of the three SIE-fields** investigated in their country. This section provides a draft template for the preparation of the country reports, including a suggested structure for the case study reports.

Deliverable 3.2 will consist of the following sections:

1. Introduction
2. Methodology
3. Country report UK
4. Country report France
5. Country report Netherlands/ Belgium
6. Country report Germany
7. Country report Poland
8. Country report Switzerland
9. Summary & conclusions

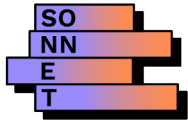
6.1 Structure of three case study reports

In this section, a first version of a structure for the case study report for each SIE-field (including the development of SIE, SIE-initiatives (a minimum of two), and other field-actors) is presented. The structure might be updated in the spring/ summer of 2020 and a template for the report will be provided at that time together with visual examples of the combined innovation timeline (and a map of actors). Both will be discussed with the case study researchers during an online call. If you would like to get started on writing the case report earlier, you can go ahead and copy/paste the structure below into an empty document.

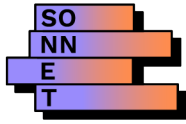
The case study report of each SIE-field should include a description and analysis of the following (the estimated page number of each section is indicated between brackets):

Structure of case study report

1. Disclaimer and Foreword (to be provided)
2. A short introduction to the SIE-field (including SIE, SIE-initiatives (a minimum of two), and other field-actors under investigation) (1-3 pages)
 - State the SIE under investigation within the SIE-field: name(s), outline of object/idea/action configuration, and initiatives and actors' different perspectives (based on your primary and secondary data analysis). Please also consider relevant scientific and grey literature for this section.
 - Concise summary of most relevant initiatives and actors making up the SIE-field (i.e. demarcation of the SIE-field): e.g. names, (locations), aims, activities and narratives & interactions and relations between the actors) (based on your primary and secondary data analysis). Please also consider relevant scientific and grey literature for this section.



- Temporal scale, i.e. which time-period is covered by the case
 - Overview and structure of the report
 - A visualisation of the combined timeline (and map of actors) (based on document review and in-depth interviews) (see section 5.1.2 for example)
3. A brief outline of key insights (linked to our major research questions as outlined in section 3.2) derived from studying the SIE-field under investigation (at least one bullet point for each research question)
4. A descriptive (historical) account of how the SIE-field (including SIE, SIE-initiatives (a minimum of two), and other field-actors under investigation) emerged and developed over time until the present (around 8-13 pages - depending on the case study)
- The below Figure 13 shows a possible structure for section 5 of the case study report. It includes:
 - **Descriptive (part explanatory, historical) account** of the emergence and development of the SIE-field (including SIE, SIE-initiatives (a minimum of two), and other field-actors under investigation) - *see black text running through the middle*
 - ❖ Try to keep in mind our major and minor empirical questions (as outlined in section 3.2) when writing this descriptive account. This account will be the main basis for answering these questions in the conclusion of the case study report (D3.2), cross-comparison in the country reports (D3.2) and meta-analysis (D3.3).
 - **Explanatory/ conceptual boxes** that explore inductive and deductive themes derived from the analysis of the case and SONNET's conceptual framing (around 4-10 text boxes) - *see blue box*. These might be explanations about:
 - ❖ Institutionalisation of the SIE-field
 - ❖ 'Outside' institutional environment (how does it look like)
 - ❖ Interaction between SIE-field-actors and other field-actors and the 'outside' institutional environment (co-shaping)
 - ❖ Institutional work conducted by differing actors
 - ❖ Enabling and impeding factors to conduct institutional work(A full list of the topic of each box will be provided with the case study template in the summer of 2020)
 - **Interview quotes** to strengthen and illustrate some of the points made within the descriptive (historical) account - *see green bubble*
 - Perhaps **photographs** connected to the SIE-field (and its SIE and initiatives/actors)



Although the motivations for being involved varied between team members, what has bounc together is that they are young, entrepreneurial and environmentally minded; they want to act than talk and are looking for a career change.

Multiple expectations

Allowing for a flexibility of expectations, motivations and aims appear to be important f development of community energy projects. Projects need to appeal on a variety of grounds to a wide audience of supporters to not only gain new members for the team but also acc investment, funding, information and advice. The Brighton Energy Co-op innovation I demonstrates how groups go through phases where they can clearly define their aims to a audience but also have to frequently open up and re-evaluate these expectations over tim episodes of opening up and closing down their aims). The need for flexible project aims and th evaluation over time are not acknowledged in most of the Strategic Niche Management literatur literature reflects on the success of a niche (numerous projects) rather than on individual pr and highlights the importance for a niche to develop precise and broadly accepted expectatio firm up over time. Most community energy groups struggle (and might not even find it desira develop such precise aims on a projects level, and therefore it might be even harder to develop as a niche.

Developing a project, whilst creating momentum and opportunities

After the public meeting Will understood the importance of having a team of people around hi enough experience to help him develop a credible project. The early team meetings were o anyone with an interest in developing the project. Damian and Danni regularly joined these me and were accompanied by local solar installers and enthusiasts. Danni described these meetin the team's efforts to 'find their feet', in particular gaining some confidence and exploring w make up the final team. Although Will, Damian and Danni gained knowledge from some enthusiasts (specifically, on solar and the Feed-in-Tariffs), ultimately they acknowledged th would make up the core team whilst the others accepted that they could not put enough time ir project to be a permanent member.

Danni: "I think it was always the people left in the room who had time to do it really. I think that is what it came down to with this kind of work – is people who are excited about it but they have not got the time to put into it. So you are left in the room with the skills of the people who are left..."

From that point onwards, and in addition to finding out how other community-owned rene energy projects have succeeded, the team was busy developing their business model (e.g. ha reviewed by the National Energy Foundation), its organisational structure and financial basis several weeks, the team's business plan consisted of a 350kW solar installation and € investment that would derive from shareholders based in Brighton & Hove and people intere: renewable energy outside of the area. This model was grounded on two assumptions: i) that pc shareholders would more likely invest in the project if they could gain a return on their inve

Figure 13: Example illustration of parts of the structure of the case study reports

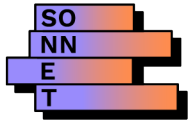
5. Summary, synthesis and conclusions (1-4 pages)

- Concise summary (including critical reflections) of key findings in relation to answering the major (and minor) empirical research questions (e.g. provide more depth to the bullet points in section 3):
 - How do SIEs and SIE-fields emerge, develop and institutionalise over time?
 - How do SIE-field-actors and other field-actors interact with the 'outside' institutional environment and thereby co-shape the SIE-field over time?
 - What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the 'outside' institutional environment?

6. List of references (if needed)

7. Annex

- Methodology:
 - Researcher relations to the case (include your choices and possible challenges/opportunities with regard to proximity vs. distance, normativity, reciprocity, research subject vs. research object);



- Description of and reflection on the empirical basis for this embedded case - who were the informants, what documents are included and which participant observation moments. What are the limitations thereof?;
- Reflect on how the empirical data has been collected and analysed, include specific perspectives and/or procedures used.
- Bibliography outlining possible other reading about the embedded case study;
- List of interviewees (including role of interviewee, date, duration of the interview);
- List of meetings and events attended (e.g. type of events, who attended, aim).

The WP3 leads will provide a template of the case study report that each case study researcher can use to write up each individual report. Please feel free to look at an example of this type of case study report (that, however, did NOT study SIE-fields but rather individual SIE-initiatives):

<https://grassrootsinnovations.files.wordpress.com/2012/09/brighton-energy-coop-innovation-history1.pdf>

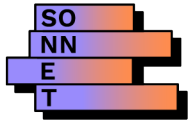
6.2 Structure of the country case study report

In this section, a first version of a structure for the country report is presented. As stated in the proposal: ‘A country report (D3.2) with a cross-analysis of the three in-depth embedded case studies in each country will then be written by each WP3 researcher/ coordinator’. This initial structure will be updated and a template provided in autumn/ winter of 2020 and discussed with the WP3 team during an online call. Each report should cover different chapters, including the three case study reports and their comparative cross-analysis. The estimated number of pages for each section is indicated between brackets. The WP3 team have 0.5 PM to do the cross-analysis and write up the country report.

Structure of country report

1. Disclaimer and Foreword (to be provided)
2. Short introduction to country report (0.5 -1 page)
 - Short description of content of the report
 - Short critical reflection on report’s main line of argumentation: SIE-fields (and its SIE and initiatives/actors) within country context
3. Key insights on cross-case analysis (0.5 -1 page)
 - Preview on key findings/ insights derived from conducting the country cross-case analysis (considering SONNET’s aims and objectives (in particular objective 2) and WP3’s major and minor research questions) (4-8 bullet points)
4. Brief description of country context in which the three SIE-fields (and SIE and initiatives/actors) have emerged and developed (1-2 pages)
 - Describe briefly the energy system, intermediary environment, energy policy developments and funding environment relevant for SIE-initiatives over the past 5-10 years (or any additional economic, cultural and political developments relevant for SIE in your national context)

The SPRU team will produce a first draft of this report for the UK that will be sent around in the autumn/ winter of 2020.



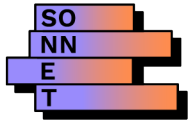
5. Methodology (1 page)
 - Brief summary/ reflections of three methodological descriptions/ explanations in the annex of the case study report sections
 - Outline of the comparative analysis of three case study reports (three SIE-fields)
6. Three case study reports
 - See previous sub-section on structure and page numbers for the individual case reports (see section 6.1)
7. Comparative analysis of the three case study reports (4-8 pages)
 - Comparative analysis on the similarities and differences (i.e. patterns) of the SIE-fields (including SIE, SIE-initiatives, and other field-actors under investigation) emergence and development over time and the institutional work conducted along the lines of answering WP3's major and minor empirical research questions, within the specific country context:
 - How do SIE emerge and develop over time?
 - How does the SIE-field emerge and institutionalize over time?
 - How do SIE-field-actors and other field-actors interact with the institutional environment and thereby co-shape the SIE-field over time?
 - What are the enabling and impeding factors for SIE-field-actors to conduct institutional work and change the institutional environment?
8. List of references (if needed)

6.3 Consulting participants

Before any of the case study research is communicated externally, **it is vital** that interviewees have been provided with copies of their own interview transcripts and/ or interview summary and given the chance to veto information that they feel should not be made public. **This is a mandatory requirement** embedded within our ethics deliverable. Interviewees may like to highlight specific extracts that, on reflection, they would prefer to be removed from the analysis and write-up. At the most extreme, they may like to withdraw entirely from the project, and they have every right to do so.

It is also **good practice** to offer interviewees the chance to read through and provide feedback on the case study reports relating to their case - before they are finalised within the country reports and shared with the SONNET consortium (i.e. ahead of March 2021). However, the case study reports will be prepared in English for the EU deliverable, so this offer will depend on the capacity of individual country teams to either provide reports in their own language or go through the English version with them - for this reason, it is **an optional component**. Doing so also gives interviewees a chance to verify the direct quotes linked to them and/ or confirm whether they feel that the content of the report is a fair representation of the case*.

*In deciding what is a 'fair' representation (if this is necessary), please respect ethical considerations that might arise (e.g. participants are free to withdraw from the study). Often these situations can be solved by slightly re-phrasing sentences/ paragraphs.



Both of these aspects should have been mentioned at the end of the interview, during the debriefing procedure.

Though it may seem like a lot of additional labour to not only inform participants and obtain consents, but to also debrief them and consult them on outputs, we would ask you to please consider this to be an important part of the case study work.

What to check with the participants

Mandatory:

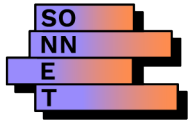
Send them the interview summary/ transcript/ participant observation notes & check whether they are happy for us to use them *as they are* for the analysis.

Optional:

Ask whether they would like to see the final case study report.

Send the final case study report to all individuals who indicated that they would like to see it and ask them whether they would like to offer any comments or feedback.

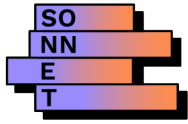
In either case, you could add to the correspondence: "If we have not heard from you by 'insert date', we assume you are happy with the transcript/ report".



7 COMPARATIVE META-ANALYSIS

SPRU (UoS), DRIFT and ISI will conduct a comparative meta-analysis (deliverable D3.3) across all of the case studies (i.e. 18 SIE-fields), particularly, concentrating on a cross-analysis of the same SIE-fields within three different national contexts (i.e. 3 SIE-fields x 6 national contexts). A meta-analysis is most often defined as a qualitative synthesis of information from several studies (i.e. across the six country reports). It is a secondary qualitative analysis of primary qualitative findings. A draft of this meta-analysis will be discussed at a half-day project meeting workshop with all consortium partners.

SPRU and DRIFT will create a systematic theme-based framework based on the empirical questions formulated in this report (section 3) and possibly additional questions arising in the meantime through the conceptual work (WP1) and empirical work (WP3). This framework will be the basis for conducting a cross-case analysis and/ or qualitative comparative analysis of country reports. In addition, ISI will focus on teasing out the role of policy across the six countries, the findings of which will feed into T2.4. The comparative analysis will be an investigation of differences and similarities for different SIE-fields (including their SIE, SIE-field-actors and other field-actors) in relation to a) the emergence, development and institutionalisation of the SIE and SIE-field over time, b) the interactions of SIE-field-actors and other field-actors with the 'outside' institutional environment, and c) the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work.



8 WORK PLAN AND KEY DATES

This section aims to present the timeframes for delivery of the tasks within this work package clearly and plainly for us all to see. The following four tables lay out a work plan for the three tasks in WP3. Many of the dates listed are **internal deadlines/ milestones** (formatted in the tables **like so**), the tables are intended to provide a *guiding framework* for us. This planning is subject to review and will be updated regularly. Nonetheless, the **EU deliverable deadlines** (formatted in the tables **like so**) are fixed, so there is a limit to how much flexibility is possible. As the majority of the person months in this work package falls within the second task (T3.2, conducting the case studies), an overview of the key steps in this task is provided in table 4 below. A more detailed overview of key dates for each task and deliverable are also provided within tables 3, 5 and 6 below. Dates for **online calls**, **face-to-face meetings** and **periods of fieldwork** are highlighted in the tables in different colours/formats, as indicated above.

Table 3 below provides a timeline for T3.1 and associated deliverable (D3.1)

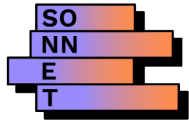
When?	Where?	What is done?	Who is involved?
April 30th 2020	Via Email	D3.1 Guidelines are uploaded to the EU	Karoline Rogge (ISI)
May 1 st 2020	Via Email	D3.1 methodological guidelines sent to national case study teams	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
May 13th 2020 14.00-15.30 CET	Monthly online call*	Walk through the guidelines and clarify questions (look at timeline for first case study reports)	WP3 working group

Table 4 below provides an overview of Task 3.2

When?	Where?	What is done?	Who is involved?
May 2020 - Jan 2021	All countries	1 st , 2 nd and 3 rd case study (4.5 PM)	WP3 country team
Feb 2021 - March 2021	All countries	Country reports (0.5 PM)	WP3 country team
April 30th 2021	Participant Portal	Submission of D3.2	Karoline Rogge (ISI)

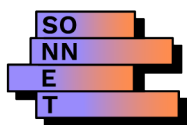
Table 5 below provides a timeline for T3.2 and associated deliverable (D3.2)

When?	Where?	What is done?	Who is involved?
May 2020 - August 2020	All countries	First case study is conducted (av. 25 days or 1.5 person months)	WP3 country team
June 4 th 2020 TBC	Via Email	'Deductive' index of codes provided for the analysis of the collected data (and final case study report template)	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)



When?	Where?	What is done?	Who is involved?
June 8 th 2020 14.00-15.30 CET	Monthly online call*	Early exchange of experience with first case study: Discuss index of codes and structure of the report	WP3 working group
June 24 th 2020 TBC	SONNET cloud	'First draft' case study report is uploaded plus preliminary 'inductive' index of codes created and uploaded	WP3 coordinators
Until Warsaw meeting	Desk	Case study reports are 'peer-reviewed' ¹⁰	WP-leads and WP3 researchers
July 6 th - 9 th 2020	Online project meeting	WP3 session at partner workshop to facilitate mutual exchange: Data analysis and case study reports (including working propositions derived from D1.2)	WP3 working group
July 20 th 2020 TBC	SONNET cloud	First final case study report uploaded	WP3 coordinators
July/ August 2020 TBC	Via Email	Further feedback on case study reports provided (if needed)	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
July 2020 - Dec 2020	All countries	Second and third case study is conducted (this can also start earlier)	WP3 country team
August 17 th 2020 14.00- 15.30 CET TBC	Monthly online call*	WP3 'clinic': exchange of issues arising, lessons learned	WP3 working group
Sept 14 th 2020 14.00-15.30 CET	Monthly online call*	WP3 'clinic': exchange of issues arising, lessons learned	WP3 working group
October 12 th 2020 14.00- 15.30 CET	Monthly online call*	WP3 'clinic': exchange of issues arising, lessons learned	WP3 working group
November 9 th 2020 14.00- 15.30 CET	Monthly online call*	WP3 'clinic': exchange of issues arising, lessons learned	WP3 working group
November 16 th 2020 TBC	Via Email	Index of codes is provided for the cross case analysis in each country (and maybe revised structure of the country report)	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
Dec 2020 - February 2020	All countries	Preparation of country reports	WP3 country team
December 7 th 2020 14.00- 15.30 CET	Monthly online call*	WP3 'clinic': Country reports	WP3 working group
December 18 th 2020	SONNET cloud	Final drafts of all 18 case study reports uploaded	WP3 coordinators

¹⁰ Process to be decided.



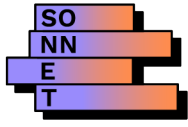
When?	Where?	What is done?	Who is involved?
Until Zurich meeting	Desk	Case study reports are ‘peer-reviewed’ ¹¹	WP-leads and WP3 researchers
January 11 th 2020 14.00-15.30 CET	Monthly online call*	WP3 ‘clinic’: Preparation SONNET project meeting	WP3 working group
January 2021 (18 th -20 th)	Zurich	WP3 session at partner workshop to discuss peer review of case study reports and gain first insights on country reports from consortium	Consortium
February 1 st 2021	SONNET cloud	Draft country reports uploaded	WP3 coordinators
Until February 21 st	Via Email	Country reports in review	City partners and WP leads
February 22 nd 2021 14.00-15.30 CET	Online call	WP3 ‘clinic’: writing up country reports	WP3 working group
March 12 th 2021	SONNET cloud	Final versions of country reports uploaded	WP3 coordinators
April 2 nd 2021	Via Email	Circulate final version of D3.2 for internal review	Devon Wemyss (ZHAW), Elisabeth Dütschke (ISI)
April 23 rd 2021	Via Email	Submission of D3.2: Report on findings in six countries	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
April 30 th 2021	Participant Portal	Submission D3.2 to EU (INEA)	Karoline Rogge (ISI)

*All online calls held at 14:00 CET, unless otherwise stated in an email and/or calendar invitation.

Table 6 below provides a timeline for T3.3 and associated deliverable (D3.3)

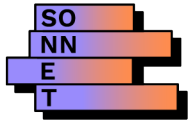
When?	Where?	What is done?	Who is involved?
July 2021	Via Email	First draft of D3.3 circulated to consortium	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
August 2021	Grenoble	WP3 session at partner workshop to provide input on D3.3	WP3 working group
September 2 nd 2021	Via Email	Final version of D3.3 goes to internal review	Jörg Musiolik (ZHAW), Marianne Crevon (MANN)
September 23 rd 2021	Via Email	Submission of D3.3: Synthesis report	Sabine Hielscher (SPRU) & Julia Wittmayer (DRIFT)
September 30 th 2021	Online Portal	Submission D3.3 to EU (INEA)	Karoline Rogge (ISI)

¹¹ Process to be decided.

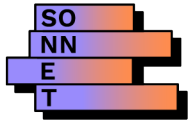


REFERENCES

- Avelino, F. and Wittmayer, J. M. (2016). Shifting power relations in sustainability transitions: a multi-actor perspective. *Journal of Environmental Policy & Planning*, 18(5), 628-649.
- Avelino, F. (2017). Power in sustainability transitions: Analysing power and (dis) empowerment in transformative change towards sustainability. *Environmental Policy and Governance*, 27(6), 505-520.
- Babbie, E. R. (2016). *The practice of social research*, 14th Edition. Cengage.
- Baxter, P. and Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-559.
- Bazeley, P. (2007). *Qualitative data analysis with NVivo*. London, Sage.
- Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development*. London, Sage.
- Cipolla, C., Afonso, R. C. M., Wittmayer, J.M., Serpa, B. and S. Rach (eds) (2015). WP4 - Case Study Report. Participatory Budgeting. TRANSIT: EU SSH.2013.3.2-1. Grant agreement no: 613169.
- Coffey, A. and P. Atkinson (1996). *Making sense of qualitative data analysis: Complementary strategies*. Thousand Oaks, Sage.
- Douthwaite, B. and Ashby, J. (2005). *Innovation histories: A method for learning from experience*. ILAC Brief No.5 Rome: Institutional Learning and Change (ILAC) Initiative.
- Eisenhardt, K. and Graebner, M.E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.
- Fligstein, N. and McAdam, D. (2011). Toward a General Theory of Strategic Action Fields. *Sociological Theory*, 29(1), 1-26.
- Hollway, W. and Jefferson, T. (2000), *Doing Qualitative Research Differently: Free Association, Narrative and the Interview Method*, London: Sage.
- Jørgensen, M.S., Wittmayer, J., Avelino, F., Elle, M., Pel, B., Bauler, T., Kunze, I., and N. Longhurst (2014). *Methodological guidelines for case studies Batch I. Deliverable 4.1*. TRANSIT: EU SSH.2013.3.2-1 grant agreement no. 613169.
- Karlsson, M. (2016). What is a case study? Retrieved: www.diva-portal.org/smash/get/diva2:1051860/FULLTEXT01.pdf.
- Lawrence, T.B. and Suddaby, R. (2006). Institutions and institutional work, in Clegg, S. R. et al. (eds) *Sage Handbook of Organization Studies*. London: Sage Publications, pp. 215-254.
- Lynne, H. and Mulcock, J. (2005). *Anthropologists in the field: Cases in participant observation*. Columbia University Press.



- Merriam, S.B. (1998). *Qualitative Research and Case Study Applications in Education. Revised and Expanded from Case Study Research in Education.* Jossey-Bass Publishers, 350 Sansome St, San Francisco, CA 94104.
- Miles, M.B. and Huberman, A.M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods,* Sage Publications, USA.
- Pel, B. (ed.), Bauler, T., Kemp, R., Wittmayer, J., Avelino, F. and Dorland, J. (2015). D5.1: From research design to meta-analysis guidelines, TRANSIT Deliverable 5.1, TRANSIT: EU SSH.2013.3.2-1 Grant agreement no: 613169.
- Pel, B. (ed.), Kemp, R., Zuijderwijk, L., Dorland, J., Wittmayer, J., Browne, N., Bauler, T., Jørgensen, M. and Strasser, T. (2015). *Configuring the Critical Turning Points data repository,* TRANSIT Deliverable 5.2, TRANSIT: EU SSH.2013.3.2-1 Grant agreement no: 613169.
- Ponterotto, J.G. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept ‘thick description’. *The Qualitative Report*, 11 (3), 538-549, Retrieved the 3rd of June 2014 from <http://www.nova.edu/ssss/QR/QR11-3/ponterotto.pdf>.
- Prior, L. (2003). *Using Documents in Social Research.* London, SAGE.
- Ragin, C.C. and Becker, H.S. (1992). *What is a case? Exploring the foundations of social inquiry.* Cambridge.
- Rapley, T. (2007): *Doing Conversation, Discourse and Document Analysis,* London, SAGE.
- Schwartz-Shea, P. and Yanow, D. (2012). *Interpretive Research Design: Concepts and processes.* Routledge.
- Scott, W.R. (2008). *Institutions and Organizations: Ideas and Interests.* Sage Publications.
- Wittmayer, J.M., Avelino, F., van Steenberg, F., and Loorbach, D. (2017). Actor roles in transition: Insights from sociological perspectives. *Environmental Innovation and Societal Transitions*, 24, 45-56.
- Yin, R.K. (2003). *Case Study Research: Design and Methods.* Thousand Oaks.
- Yin, R.K. (2009). *Case Study Research: Design and Methods.* Thousand Oaks.



Appendix 1: WP3 - Topic guide & observation guide

Topic guide for interviews

The topic guide is meant to guide your first set of interviews. It can be used for SIE-initiatives (& SIE-field-actors) and other field-actors. Based on your document review and the collective definition of the SIE/ SIE-field in focus, you need to contextualise/ adapt this guide. It might also need to be adapted for a next set of interviews and type of interviewee. For example, not all questions will be relevant for each interviewee (i.e. the researcher can decide on the focus, depending on the interviewee). Moreover, maybe one or two additional questions 'need' to be asked depending on the interviewee's experience and expertise. It is a topic guide for conducting in-depth interviews rather than structured interview protocol. The important thing to keep in mind is to collect data with which we can answer our research questions.

TITEL

Black = broad question that may be asked literally.

Grey = probing points

In the topic guide, you can sometimes find the terms: '*name of the SIE/ SIE-field*'. Which name you use for the SIE/ SIE-field is based on a combination of making use of SONNET's cluster names and your own empirical work on the SIE/ SIE-field. If you are unsure about which term to use, please get in touch with the WP3 leads. This can be verified and/ or adapted during the interview (depending on the interviewee/s perception and experience).¹²

1. Interviewee

1.1 What is your connection to the *name of SIE/ SIE-field*?

- Specifying connection with the *SIE/ SIE- field*

1.2 What kind of initiatives/ organisations are you involved in linked to *name of SIE/ SIE-field*?

- Specifying role(s) of person in initiative/ organisation (*specify name of role for case study report*)

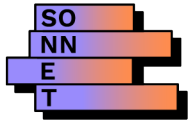
2. You and your initiative/ organisation and its (link to) SIE

2.1 What does your *name of the SIE-initiative/ organisation*¹³ work on? (Possibly go through all of the *name of initiatives/ organisations* mentioned or main one)

- What for? Aims? Have these changed over time?
- Main activities? Who is involved? Who is not involved?
- Process: how does it work? (Business model, organisational and governance structure?)
- Geographical area they try to influence: local, regional, national, EU, global
- What do you think is the energy challenge/ problem that *name of initiative/ organisation* tries to address?

¹² When engaging with participants in the study, WP3 researchers need to find their own term for the SIE and SIE-field (depending on the language and national context). It is about finding a term that participants can recognise but is also close to our interpretation of the SIE and SIE-field. It is up to you whether it makes more sense to find a term for the SIE and/ or the SIE-field. If you are unsure about it, please get in touch with the WP3 leads.

¹³ *Initiative/ organisation* can refer to SIE-initiatives (other SIE-field-actors) and other field-actors. It relates to the interviewee's initiative/ organisations. To provide a bit of more information: The interviewee will likely talk about the initiative/ organisation they volunteer/ work for and/ or a specific policy, programme and/ or project they have been working with. We interview them because they are involved in and/ or have links to the SIE/ SIE-field that we want to study, so whatever that context is (organisation, department, specific policy, programme, project or initiative) becomes the object of study.



2.2 What was/ is interesting/ different about the *name of SIE*¹⁴ that you work on and/ or try to enable?

- New/ alternative doing, organising, thinking?
- Change in social relations? And what form (object, ideas, actions) does it take?
- From 'where' did it come (and when)? Has it formalised (and if so, how)?
- Relation with status quo/ normal way of how things are done?

3. Your initiative/ organisation and other SIE-field-actors and other field-actors

Brief guidance:

- ❖ Possibility to draw actor network (if possible and helpful). It helps with making sense of actors' relations and interactions
- ❖ Start with the innovation timeline to map, e.g., events that are mentioned

3.1 Which other initiatives/ organisations in your country (or even internationally) do you know with similar goals, activities and approaches (i.e. working on the same SIE)?

- Long-standing actors? Changes over time?
- How do you interact with these initiatives/ organisations? Reason and content of these interactions? Changes over time?
- Did these interactions change the *name of initiative/ organization and/ or name of SIE/ SIE-field*? Over time?

3.2 What are other relevant actors (i.e. SIE-actors and field-actors) who have played an important part for *name of SIE/ SIE-field*? Enable and impede *name of SIE/ SIE-field*.

- Long-standing actors? Enable *name of SIE/ SIE-field (how)*? Impede *name of SIE/ SIE-field (how)*? Changes over time?
- How do you interact with these initiatives/ organisations? Reason and content of these interactions? Changes over time?
- Did these interactions change the *name of initiative/ organization and/ or name of SIE/ SIE-field*? Over time?

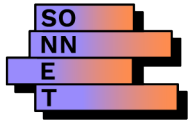
3.2 What types of relations (alliances, networks, collaborations, etc.) have been created between actors? (Can be both formal and informal)

- Reason and content of these relations? Names? Changes over time (and if so, how)? (Gain a sense of density of relations)
- Characterisation of these relations (cooperation, exchange, competition, conflict)
- Who has (not) benefited from these relations?
- Shared activities, goals, narratives, and technologies created? Changes over time (and if so, how)?
- Consider themselves as part of a broader movement? (Explore if yes)
- Geographical area they try to influence: local, regional, national, EU, global

3.3 What aspects of your *initiative/ organisation's work* has been widely adopted or replicated (e.g. business models and actor's activities) by several actors over time?

- Why? Who was important? How did it happen?
- What other aspects have been widely adopted or replicated beyond your own *initiative/ organisation*?
- Shared learnt lessons? Spread over time?

¹⁴ Here, we are really interested in the SIE rather than SIE-field.



4. Key events, shocks, contestations, etc. co-shape the SIE/ field/ initiative/ organisation over time

Brief guidance:

- ❖ Draw timeline (if you have not already started the process)

4.1 If you look back, what would you say have been key points and phases in the emergence and development of the name of SIE/ SIE-field? [Based on initiatives/ organisation's perspective and experience]

- Key (field) events and (field) contestations influence name of SIE/ SIE-field? Changes over time?
 - When did they occur? How did they come about? Content? Actors connected?
 - Related connected events? And policy developments (if connected)?
 - Mayor changes/ achievements? Shifts in actors' relations? Shift in power relations?
 - Did it change the name of SIE/ SIE-field? Inhibit/enable name of SIE/ SIE-field developments?
- What have been the key external shocks, events and societal trends?
 - When? How come about? Content? Actors connected?
 - Related events? And policy developments?
 - Mayor changes/ achievements? Shifts in actors' relations? Shift in power relations?
 - Did it change the name of SIE/ SIE-field? Inhibit/enable name of SIE/ SIE-field developments?

5. Influence of institutional environment on emergence and developments of SIE/ initiatives/ field over time

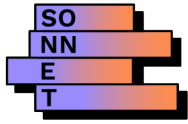
Brief guidance:

- ❖ Add to timeline (if possible)

5.1 Tell me a bit about key political, policy, legal and regulatory developments¹⁵ that have influenced your name of initiative/ organisation and name of SIE/ SIE-field? (Over time?)

- This can be formal/ informal policies, regulations, laws, standards and political debates
 - When? How came about? Content?
 - Actors connected? Proponents vs opponents? Main contestations and debates?
 - Related events? Changes/ achievements?
 - Which governance levels involved? (local, regional, national, EU)?
- How have policy developments enabled/ impeded the name of SIE/ SIE-field and actor's activities? (Dis/empowering (or not)?) Changes over time?
- Specific collective activities and strategies to deal with current impeding political, legal and regulatory context? (Who? How? Obstacles in getting involved?)
- What concrete measures by policy, utilities and/ or regulators do you think would most support further development (of the SIE-field)?

¹⁵ Please feel free to separate these 'issues' out into different questions (rather than asking about them in one question).



5.2 Tell me a bit about wider ‘societal’ discourses and narratives surrounding norms, values and beliefs that have influenced your *name of initiative/ organisation* and *name of SIE/ SIE-field*? (Over time?)

- This can be formal/ informal social norms, cultural values, expectations, common belief, ethical debates and dilemmas
 - When? How came about? Content?
 - Actors connected? Main contestations and clashes?
 - Related events?
 - Changes/ achievements?
- How have they enabled/ impeded the *name of SIE/ SIE-field* and actor’s activities? (Dis/empowering (or not)?) Changes over time?
- Specific collective activities and strategies to deal with current impeding social and cultural context? (Who? How? Obstacles in getting involved?)

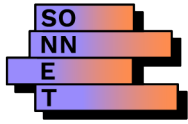
6. Enabling/ impeding factors for institutional work & types of work conducted over time

6.1 We have talked about individual/ collective activities surrounding *name of SIE/ SIE-field*. Could you identify 3-6 important collective activities that you feel have had a ‘major’ influence on *name of SIE/ SIE-field* and tell me about them in more depth? Also, how they had an influence? [Some activities might have been mentioned earlier on in the interview – these can be picked up here]

Brief guidance:

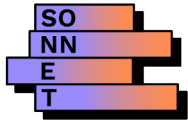
- ❖ Try to investigate 3-6 of these in more detail
 - ❖ You can also probe for ‘single’ (not collective) actor’s activities if they were really important for the development. First ask for collective ones and then probe for ‘single’.
 - ❖ Add to timeline (if possible)
- What did this *individual/ collective activity*¹⁶ consists of (e.g. advocacy or networking), and when did it happen? Who has organised it and why? Who was involved? Who was not involved but should have been (why)? What have been the aims? (Content)
 - How did the *individual/ collective activity* come about? What (and who) did enable and/ or impede the *individual/ collective activity* (how)? How was your *name of initiative/organisation* involved? (Co-production/ enable & impede factors)
 - To what extent did the *individual/ collective activity* involve disagreements? What were these about, and who was involved? How (if at all) was it overcome? Changes to power relations? (Contestation)
 - How did the *individual/ collective activity* influence the development of *name of SIE/ SIE-field*? Who benefitted (and who did not) (how)? Which important later events were evoked by the *collective activity* and when did they occur? (Anticipation/ beneficiaries)
 - Did this *individual/ collective activity* achieve its aims? To what extent did these *individual/ collective activities* influence the wider public, media and policy? Influence on norms, beliefs, ‘mainstream practices’, etc.? (Achievements)
 - Did this *individual/ collective activity* have any (positive/negative) unintended and/ or side-effects? If so which? (Achievements)

¹⁶ Insert name of *individual/ collective activities* (from here onwards)



7. Other emerging questions and issues

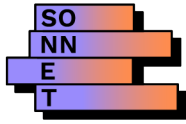
- (Any relevant issues that come up before/during interview)
- Which other key actors linked to name of SIE/ SIE-field would you recommend to interview?
- Are there any topics you missed in this interview?
- Do you have any questions to us?



Observation guide

You can take observation notes of the following element (please adapt depending on the meeting/ event):

- A. TOPIC - What is the meeting about? How is the topic framed?
- B. PEOPLE - Who is there? How many people are there? Roles and relations that become visible.
- C. CONVERSATIONS - About what? By whom? Where? Controversies?
- D. BEHAVIOURS BY GROUPS AND INDIVIDUALS - What? By whom? Where?
- E. FORMAT - What is the format of the meeting/ event? Who decided? Who invited? Who presented? Who spoke? How implemented? Do participants comply with it?
- F. CONTEXT BEFORE MEETING/ EVENT - How did the meeting/ event come about? Who organised it? Who was invited (or not)? Who actually came? What are the aims (who decided on them)? Is there an agenda (if so what is on it)? Who created it (how)?
- G. CONTEXT DURING MEETING/ EVENT - What else is going on? What do people talk about in breaks (or on the side)? What else seems to be important to note down?
- H. END OF MEETING/ EVENT - How did it end? What did happen? Something decided? Other outcomes?
- I. AGENCY & POWER - What opportunities do people have to contribute (or not)? How are these possible contributions facilitated (or not)? How are these contributions included in the process (or not)?
- J. GENERAL MOOD - What? How conveyed? By whom?
- K. OTHER REFLEXIVE COMMENTS



Appendix 2: WP3 - Excel templates

See SONNET cloud > WP3 folder for Excel files that you can download and use, including:

In-depth interviews

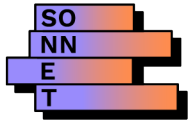
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Name of initiative/ organisation	Name of interviewee	Code Interviewee	Role (if relevant/ known)	Time	Date	Location	Format (F2F, phone, video call)	Duration	Language	Audio recorded?	Interviewer	Comments	Link to website of initiative/ organisation	SIE-initiative, SIE-actor or field actor
2	Brighton Energy Coop	James Muster	A-01	Installation manager at Ovelo	13:00	#####	101 St Paul's Street, Bristol	Face to face	1h 35 m	English	Yes	Sabine Hielscher	Venue (café) was noisy	http://made-up-website.fake	SIE-initiative
3															
4															
5															
6															
7															
8															
9															
10															

Participant observation

	A	B	C	D	E	F	G	H	I	J
1	Name of initiative/ organisation that organised the event/ meeting	Participant observation event (title or brief description)	Time	Date	Location	Duration	Observer	Language	Comments	Link to website of initiative
2	Brighton Energy Coop	Community Energy conference	10:00	03/07/2020	Bristol City Conference Centre	5 h	Sabine Hielscher	English	Great event for discovering linked SIEs	http://made-up-website.fake
3										
4										
5										
6										
7										
8										
9										
10										
11										

Document review

	A	B	C	D	E	F	G	H	I
1	Author name	Document name	Document type	Linked to which SIE-field - Name	References	Year	Link to the reference	Primary or secondary source?	Comments
2	Ovelo	The state of community Energy in 2019	Report	Cooperative energy	Ovelo (2017). Electricity Network Set-Up Guide for Communities. Bristol; Ovelo.	2017	https://made-up-website.fake/publications/electricity-network-set-up-guide-for-communities/	Primary	Useful source of data about community energy
3									
4									
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13									
14									
15									



Appendix 3: WP3 - Ethics templates

Participant Information Sheet (template)

Below is the text to be used as the ‘participant information sheet’. The text below will be pasted to the official template of the project, which will include the SONNET logo and EU disclaimer. Prior to this, the template **must be translated** to the language of the country in which the research will take place.

PARTICIPANT INFORMATION: INTERVIEWS

Project title: Social Innovation in Energy Transitions (SONNET)

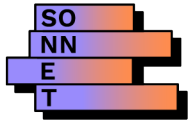
Grant agreement number: 837498 - SONNET

We would like to invite you to participate in a research project examining the diversity, processes, contributions and future potentials of social innovations in the energy sector (SIE) (e.g. cooperative energy and collaborative investment for sustainable energy). This information sheet has been put together to help you decide whether or not you wish to take part. We would very much value your participation, but taking part is entirely voluntary. If you decide to take part you are still free to withdraw at any time without giving a reason. If having read this information sheet you would like to find out more, or discuss any aspect of the project prior to deciding whether to participate, please contact the researchers – **INSERT name of country coordinator**, Prof Dr Karoline Rogge and Dr Sabine Hielscher – using the contact details overleaf.

WHAT IS THE PURPOSE OF THE STUDY?

The SONNET team is interested in examining the diversity, processes, contributions and future potentials of SIE. We want to assess - critically and reflexively - the processes and contributions of SIE towards sustainable energy transitions in Europe. SONNET investigates how, to what extent and under which enabling factors diverse types of SIE help to overcome energy transition barriers. Ultimately, we aim to capture the diversity of social innovation in the energy sector in Europe, characterise the contributions of different types of SIE to making energy more secure, sustainable and affordable.

The research is conducted as part of the Horizon 2020 call: ‘Building a low carbon, climate resilient future: secure, clean and efficient energy’ call and thus funded by the EU Horizon 2020 programme. The project brings together 13 European partners including six academic partners, six city regions and a small/medium-sized enterprise. We hope that the results of this research and the broader project will be used to inform future energy policies in Europe. For more information about the wider project please visit the SONNET website: <https://sonnet-energy.eu/>.



WHY HAVE I BEEN INVITED TO PARTICIPATE?

As part of the work, we are interested in talking to several actors who work and/ or enable and/ or are linked to SIE (just like you) to provide a rich description and analysis of the development of **INSERT SIE/ SIE-field name** in **INSERT country name** over time. We are interested in understanding the aims and activities of your **INSERT name of initiative/ organisation**. We would also like to know how you have interacted and worked with other actors/ initiatives/ organisations within **INSERT SIE/ SIE-field name** over the past 5-10 years, in particular, the types of alliance, activities and narratives that have been created, key events, etc. along the way, and enabling and impeding factors to achieve certain aims. Moreover, it would be interesting to hear about broader political, social and cultural developments that have influenced your **initiative/ organisation** and **INSERT SIE/ SIE-field name**.

DO I HAVE TO TAKE PART?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason.

WHAT WILL HAPPEN TO ME IF I TAKE PART?

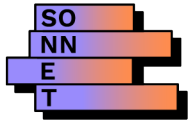
We are flexible about how this research should be conducted, and will aim at all times to fit around the needs and demands of the initiative/ organisation and individual experts we are working with. We would very much like to conduct informal interviews with you. It will take between **INSERT times**. If possible, though, we would also like to carry out a short survey about your aims and participant observations at relevant events and meetings. We can discuss this before/ during the interview.

WHAT ARE THE POSSIBLE DISADVANTAGES AND RISKS OF TAKING PART? WHAT ARE THE POSSIBLE BENEFITS OF TAKING PART?

We hope that the results will contribute to open and informed debate on the subject of social innovation in energy transitions.

WILL MY INFORMATION IN THIS STUDY BE KEPT CONFIDENTIAL?

- Any personal data that has been provided by you will remain confidential, will not be shared with third parties, nor transferred outside of the SONNET project team, and will be stored in institutional servers and destroyed after completing the project.
- The research material will be kept strictly confidential and will be available only to members of the research team. Interview recordings and photographs, if consented, and interview notes will be kept on password protected laptops and/ or online storage spaces.
- Any interview transcripts will be sent to the individual prior to distribution outside the research team so that you have the right to veto information that should not be made public.
- I would like to reassure you that as a participant in this project you have very definite rights.
 - First, your participation is entirely voluntary.
 - Second, you are free to refuse to answer any question.
 - Third, you are free to withdraw at any time without giving a reason.



WHAT SHOULD I DO IF I WANT TO TAKE PART?

Please read carefully through the participant information and consent form. Please sign the consent form and send or give it to the named researcher below.

WHAT WILL HAPPEN TO THE RESULTS OF THE RESEARCH STUDY?

Excerpts of research material may become part of the final research report, teaching materials, academic papers and funding proposals. The research data (e.g. interview recordings, notes from workshops, etc.) will be stored in a secure institutional server and retained for a period of 10 years after the project ends.

WHO IS ORGANISING AND FUNDING THE RESEARCH?

SONNET is a Horizon 2020 research initiative, responding to the call for research on 'Social innovation in the energy sector'. The project has started on the 1st of June 2019 and will run for three years. SONNET is coordinated by Fraunhofer ISI, Germany.

WHO HAS APPROVED THIS STUDY?

This research has been approved by the Social Sciences & Arts Cross-Schools Research Ethics Committee (C-REC) of the University of Sussex.

CONTACT FOR FURTHER INFORMATION

Case study coordinator (NAME COUNTRY)

INSERT name, role, office address, email address

Project coordinator

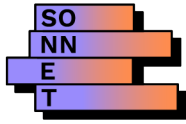
Prof Dr Karoline Rogge
Deputy Head of the Competence Centre Policy and Society
Fraunhofer Institute for Systems and Innovation Research ISI
Breslauer Strasse 48
76139 Karlsruhe
Germany
Karoline.Rogge@isi.fraunhofer.de

Ethics and data manager

Dr Sabine Hielscher
Senior Research Fellow
University of Sussex
Science Policy Research Unit
Brighton
UK
s.hielscher@sussex.ac.uk

If you have any concerns about the way in which the study has been conducted, please contact the Chair of the Social Sciences & Arts Cross-Schools Research Ethics Committee (C-REC) of the University of Sussex, which reviewed and approved the research conducted in this project on c-recss@sussex.ac.uk

THANK YOU!



Consent Form (template)

As in the case of the ‘participant information sheet’, the template for the ‘informed consent forms’ will be pasted to the official text documents of the project, which include the SONNET logo and EU disclaimer. Prior to this, the template **must be translated** to the language of the country in which the research will take place.

CONSENT FORM FOR PROJECT PARTICIPANTS

Title of Project: Social Innovation in Energy Transitions (SONNET)

Name of Researcher and Institution: **INSERT country coordinator name, role and institution**

Grant agreement number: 837498 - SONNET

Acknowledgements:

Please tick box

I have had the project explained to me and I have read and understood the Information Sheet, of which I have a copy for my records.

YES

NO

I had the opportunity to pose questions and received satisfactory replies about the project and the scope of my participation.

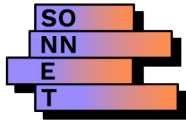
I understand that my participation is voluntary and that I can withdraw at any stage of the project, without there being any negative consequences.

I understand my personal details such as phone number and address will not be revealed to people outside the project and will be destroyed at the end of the project.

I understand that I can ask for any data that concerns me to be destroyed and/or removed from the project until the project is finalised.

I understand that all the information I provide will be handled in accordance with applicable EU and national laws and the General Data Protection Regulation (GDPR) 2016.

I understand that any non-personal data provided by me during my interview will be analysed by team members for the purposes of the study. I authorise that SONNET team members have access to such research data.



Consents and permissions:

Please tick box

I consent to the recording of my interview to create an audio file and to the transcription of this file in order to create a written record of my interview.

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

I consent to the production of photographic images during my interview, to create a visual record of my interview.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

I consent to the processing of my personal information for the purposes of SONNET's research.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

I give my permission to be pseudonymously quoted in SONNET publications, reports or other research outputs, using my organisational affiliation and role.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

I give my permission for any photographs of my interview to be used within SONNET publications, reports or other research outputs, excluding any images that show my face.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Requests and declarations:

Please tick box

I would like to receive email updates from the SONNET project, and understand that I can unsubscribe at any time.

YES	NO
<input type="checkbox"/>	<input type="checkbox"/>

My email address for this purpose is: _____

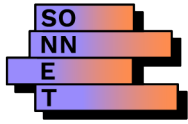
I declare that the statements provided in this consent form and my decision to participate in this study is entirely of my own free will.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

I declare that I agree to participate in SONNET's research and in this study.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Name: _____
Signature _____
Date: _____



Debriefing sheet (template)

This debriefing sheet can be used during the debriefing procedure, at the end of each interview. Whereas going through the debriefing procedure is a mandatory requirement, the use of this sheet is optional.

If you decide to use it, the template below should be pasted to the official template of the project, which includes the SONNET logo and EU disclaimer. Prior to this, the template should be translated to the language of the country in which the research will take place.

DEBRIEFING SHEET

Title of Project: Social Innovation in Energy Transitions (SONNET)

Name of Researcher and Institution: **INSERT country coordinator name, role and institution**

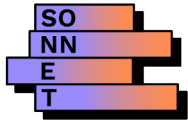
Grant agreement number: 837498 - SONNET

Now that the interview is complete, we would like to draw your attention to the following:

- ⤴ **Your interview transcript will be sent to you** prior to distribution outside the research team so that you have the right to veto information that should not be made public.
- ⤴ **You have the right to withdraw any or all of the data** you have provided, and you do not need to provide a reason for doing so.

Thank you for your time and interest in participating in this research. We hope this has been an enjoyable and pleasant experience. Please provide us with any feedback you would like to give. Your opinion is very important to us and will be thoughtfully considered.

If you have any further questions or want clarification regarding this research and/or your participation, please contact: the responsible researcher, through the contacts indicated at the top of this form, the ethics and data manager - Dr Sabine Hielscher, at s.hielscher@sussex.ac.uk, or the project coordinator - Prof Dr Karoline Rogge, at: Karoline.Rogge@isi.fraunhofer.de.



Appendix 4: EC summary requirements

Changes with respect to the DoA

The submission data of the deliverable has been changed from the 31.03.2020 to the 30.04.2020. In line with our conceptual framework (D1.2), we have slightly upgraded our embedded case study approach. We will conduct 18 embedded case studies across all six SONNET countries (i.e. 3 per country). In these embedded case studies, 36 case studies of SIE-initiatives are nested within the SIE-field investigations (on average 2 per field, 6 per country). There are no other changes in scope and content of the deliverable.

Dissemination and uptake

This deliverable provides a joint research strategy and procedures for in-depth study of the diversity, processes and contributions of SIE and a methodology for ensuring standards of validity, generalisability and replicability from, as well as comparability between, the empirical case studies conducted by all SONNET partners (though it may be adapted as the SONNET researchers gain insights and reflect on their experiences throughout the fieldwork). In combination with the SONNET typology (D1.1) and conceptual framework (D1.2), this deliverable will inform any publications in peer-reviewed journals that report on the SONNET case studies. In addition, the methodological guidelines will be outlined on the SONNET website and openly shared on the platform Zenodo.

Short Summary of results (<250 words)

This report develops the **methodological guidelines** within WP3 for the study of diversity, processes and contributions of social innovation in energy (SIE). The methodology presented within this deliverable is a comparative case study design with **multiple embedded cases studies** of SIE-field (including SIE, SIE-initiatives and other field-actors). The case studies will be presented as a series of six country reports, one from each SONNET country. Each national report will contain documentation of three in-depth case studies, giving a full set of 36 SIE-initiatives studied across all six countries.

This deliverable provides a **joint research strategy and procedures** about how to study SIE and is primarily directed at the researchers who conduct embedded case studies (WP3) within SONNET. It provides a) guidance on the more procedural matters within the work package, including how we plan to collaborate in order to deliver the work, b) brief outline of the conceptual framing related to the case study work, c) an overview of multiple, embedded case study approach, d) guidance on data collection and analysis (and ethical procedures), d) a draft template for the preparation of country reports, including a suggested structure for the embedded case studies, and e) the work plan and key dates. As the empirical work (T3.2) has not yet been conducted, no results are available for now.

Evidence of accomplishment

This deliverable and associated documents.