D3.2 – Social Acceptability Protocol for Living Labs
WP3 – Social Acceptability

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EXECUTIVE SUMMARY

The *Social acceptability protocol for Living Labs* (D3.2) - provides **guiding principles** for the implementation and running of Living Labs in the PARENT Project's Pilots. These principles take into account concerns that relate to the social acceptability of PARENT platform and also more broadly to PARENT interventions in the Pilots and the Living Labs. The document provides **actionable tools for gathering data** about social acceptability through the Living Labs. Three annexes are provided that should be used to help i) design stakeholder engagement in the Living Labs; ii) assess whether social acceptability concerns were addressed successfully in the Living Labs, and iii) systematically codify the knowledge gained in the three LLs to ensure learning can be transferred beyond the life of the project.

The deliverable is structured as follows: after having defined the scope and objectives of the *Social Acceptability Protocol*, it provides a brief framing of how Living Labs are conceived within PARENT. Subsequently, there follows a detailed section that defines social acceptability both theoretically and practically. A brief concluding section summarizes these definitions and recaps the purpose of the annexes that follow. The three annexes described above follow. These constitute the concrete tools developed by the deliverable and concerns: guidelines for social acceptability of living labs; assessment of social acceptability of living labs; discussion guidelines for social acceptability of the Platform.

Project summary

The deliverable has been developed within the PARENT project for exploring societal acceptability of the PARENT platform in the sites of investigation (*i.e.* pilots, WP6), and targeted towards more responsible governance of energy monitoring systems. This is a distinct activity in the project because… The protocol is based on: (1) existing knowledge about societal acceptability of these systems and (more generally) renewable energies and (2) results from the EPINET project into societal acceptability thereof, sorted according to the six pillars of Responsible Research and Innovation (RRI) with additional attention paid to sustainability and personal data protection. The keys considered are: Governance; Public engagements; Gender equality; Open Access/Open Science; Ethics; Sustainability; and Privacy and personal data protection.

The social acceptability protocol developed by this deliverable is intended to be used within the Living Labs (WP7), through its adoption in the Living Labs protocol (D7.1), and as input to (value-sensitive and interactive) design of the Platform (T5.2-T5.4). Finally, this deliverable complements and relates to the ELSA frame (Ethical, Legal, Social Aspects) developed in D2.1 – *Definition of the ELSA benchmark* – and builds on the insights of D3.1 - *Scoping paper on societal acceptability and RRI*.

Management summary

To follow

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Issue Date	Rev No.	Author	Change
25-02-2017	1.0	GP, KR	Main structure and first content draft
09-03-2017	2.0	GP	Integrates review comments by JS and TM
16-05-2017	3.0	GP	Complete content draft with addition of 3 Annexes
28-07-2017	4.0	GP	Integrates review comments to final version by JS, formatting and layout adjustments.

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List of Abbreviations

Abbreviation	Description
WP	Work Package
RRI	Responsible Research and Innovation
LL	Living Lab
ELSA	Ethical, Legal, Social Aspects
ENoLL	European Network of Living Labs
Partner Abb.	Description
VUB-IES	Vrije Universiteit Brussel – Institute for European Studies
BLP	Blue Planet AC
UU	Universiteit Utrecht
RES	Resourcefully
SVT	University of Bergen, Centre for the Study of the Sciences and the Humanities

1 Introduction

Social acceptability (or acceptance) has recently emerged as a relevant area of inquiry and intervention for the diffusion of innovations in the energy domain, from renewable energy sources technology, to distributed generation, from smart metering to smart home energy management and smart grids (Mallett 2007; Stigka, Paravantis, and Mihalakakou 2014). Indeed, purely technical assessments and interventions (e.g. legislative, economic, engineering) around such innovation have proved unsatisfactory as they are not able to account for and tackle the much more complex dynamics and interactions that are at stake when transitioning from one energy paradigm to another (Wolsink 2012; Aaen, Kerndrup, and Lyhne 2016).

This deliverable – *Social acceptability protocol for Living Labs* (D3.2) - provides **guiding principles** for the implementation and running of Living Labs in the PARENT Pilots. These principles take into account concerns that relate, strictly speaking, to the social acceptability of PARENT Platform and, more broadly, PARENT interventions in the Pilots, including the Living Labs. Furthermore, the document also provides **actionable tools for gathering data** about social acceptability through the Living Labs.

The deliverable is structured as follows: after having defined the scope and objectives of the *Social Acceptability Protocol*, it provides a brief framing of how Living Labs are conceived within PARENT. Subsequently, there follows a detailed section that defines social acceptability both theoretically and practically. A brief concluding section summarizes these definitions and recaps the purpose of the annexes that follow. Three annexes constitute the concrete tools developed by the deliverable and concerns: guidelines for social acceptability of living labs; assessment of social acceptability of living labs; discussion guidelines for social acceptability of the Platform.

2 Scope, objectives and connections of the deliverable

The deliverable has been developed within the PARENT project for exploring the societal acceptability of the PARENT platform in the sites of application (*i.e.* pilots), and it has been tailored to support a responsible governance of energy monitoring systems. This is a distinct activity in the project, because Responsible Research and Innovation (RRI) is a founding pillar of PARENT and requires a actionable tools-set, which this deliverable is a part of.

The protocol is based on: (1) existing knowledge about societal acceptability of these systems and (more generally) renewable energies and (2) results from the EPINET project into societal acceptability thereof, sorted according to the six characteristics of Responsible Research and Innovation (RRI) with additional attention paid to sustainability and personal data protection. The keys considered are: Governance; Public engagements; Gender equality; Open Access/Open Science; Ethics; Sustainability; and Privacy and personal data protection.

The social acceptability protocol developed by this deliverable is intended to be used within the Living Labs (WP7), through its adoption in the Living Labs protocol (D7.1), and as input to (value-sensitive and interactive) design of the Platform (T5.2-T5.4). Finally, this

deliverable complements and relates to the ELSA frame (Ethical, Legal, Social Aspects) developed in D2.1 – *Definition of the ELSA benchmark* – and builds on the insights of D3.1 - *Scoping paper on societal acceptability and RRI*.

3 Living Labs in PARENT – a brief consideration

The phenomenon of Living Labs has emerged in the last two decades as an alternative and relevant milieu for the promotion of change and innovation at the urban scale. Beside the European Network of Living Labs (ENoLL)[1], the strong focus put on Living Labs by the *JPI Urban Europe* framework[2] are proofs of the relevance of this approach.

A widely-shared definition of Living Labs (LL) is lacking (Kviselius and others 2009). However, they are broadly understood as either *environments* to be established and nurtured or a *methodology* for harnessing complex innovation processes (Dell'Era and Landoni 2014). In the former case, the systemic elements that build up the LL (*e.g.* user groups, stakeholders, technology components, business models, etc.) come under the spotlight. In the latter case, the processes, the actors and the techniques needed to promote innovation in a collaborative way are highlighted (Bergvall-Kåreborn and Ståhlbröst 2009). Although these two views are not mutually exclusive, and the elements of both are present in each of them to different degrees, for the scope of PARENT, LL are better appreciated as a methodology[3]. Indeed as it is clarified by the formal description of LLs in PARENT, these are a means to an end.

> The PARENT Living Labs are meant to be an innovative **instrument to ensure continuous participation of the stakeholders** and of **seeking their views** in developing both the PARENT prototype (WP5) and PARENT final recommendations (WP9). (PARENT DoW, p.21)

This brings LL in PARENT very close to a "*design research methodology aimed at co-creating innovation through the involvement of aware users in a real-life setting*." (Dell'Era and Landoni 2014, 139), which is applied in the context of energy monitoring enabled platforms for efficient behaviours.

There are several general **principles**, **techniques** and disciplinary **approaches** that sustain LL as a methodology. Broadly speaking, LL fall within the spectrum of user-centred, collaborative and participatory design approaches to innovation (Eriksson, Niitamo, and Kulkki 2005; Kviselius and others 2009; Bergvall-Kåreborn and Ståhlbröst 2009). With their

1 The European Network of Living Labs (ENoLL) counted over 390 benchmarked LL worldwide in more than a decade, with 170 fully active and running. For more information on ENoLL: http://www.openlivinglabs.eu.

2 For instance, the Era-Net Smart City and Communities (ENSSC) funding scheme focus specifically on Living Labs (http://jpi-urbaneurope.eu/calls/enscc/) and the number of funded initiatives that lever on Living Labs is relevant (http://jpi-urbaneurope.eu/app/uploads/2017/06/JPI-UE-Projects-Catalogue-2017-2.0-170608.pdf).

3 The details for the design and execution of the LL in PARENT will be dealt in WP7 and the related deliverables.

specificities and nuances, all of these approaches bring about the following pillars for the use of LL (Dell'Era and Landoni 2014; Bergvall-Kåreborn and Ståhlbröst 2009) as a methodology:

- *Real-life experimentation* as a core setting of the intervention;
- *Involvement* of end-users [and stakeholders, more broadly] in co-creation;
- *Continuity* of the involvement process as a means to build trust along time;
- *Spontaneity* as an acknowledgement of the importance of the unforeseen possibilities which emerge out of the interaction with users and stakeholders;
- *Realism* as the paramount orientation towards to goal of the intervention/project, its innovative value, products, technologies or services (i.e. the matter of discussions of the LL shall focus on concrete aspects, opportunities or challenges that easily relate to the actual contexts of the living labs, rather than focusing on visionary ideas of innovation or value generation);
- *Openness* with regards to the involvement of stakeholders, whom shall be as diverse as possible and to be able to bring about different perspectives;
- *Empowerment of users* as guiding principles to be pursued both at the level of their involvement in the LL process and at the level of innovation outcomes.

The techniques that can be used within LL are various and they need to be chosen and tailored to fit specific contexts and objectives, which are addressed in the next section (Section 4). They range from questionnaires to interviews; from applied ethnography to focus groups, from participatory design workshops to prototypes testing, only to name a few.

The concrete details of LL for the three piloting areas of PARENT (Amsterdam, Bergen, Brussels) are defined and explained in D7.1. However, the above premise is nonetheless relevant for this deliverable as it clarifies the general nature of the LL methodology. Indeed, this involves the promotion of new relationships, or the change of existing ones, the nurturing of concrete interactions among stakeholders and the emergence of expectations as well as the creation and maintenance of trust. As such, Living Labs are integral part of PARENT interventions with their own agency and impact in the real settings, and not only in relationship to PARENT platform. Therefore, LL themselves fall into the scope of PARENT interest for doing RRI.

4 Social acceptability in PARENT

4.1 What do we mean?

Social acceptability (or acceptance) has recently emerged as a relevant area of inquiry and intervention for the diffusion of innovations in the energy domain, from renewable energy sources technology, to distributed generation, from smart metering to smart home energy management and smart grids (Mallett 2007; Stigka, Paravantis, and Mihalakakou 2014). Indeed, purely technical assessments and interventions (e.g. legislative, economic, engineering) around such innovation have proved unsatisfactory as they are not able to account for and tackle the much more complex dynamics and interactions that are at stake

when transitioning from one energy paradigm to another (Wolsink 2012; Aaen, Kerndrup, and Lyhne 2016).

The most typical approach to social acceptability focus on three interrelated dimensions: (1) *socio-political* – broad level acceptance (governments, institutions, associations, market actors) of energy related policies and technology; (2) *community* – specific acceptance at the very local level (*e.g.* related to siting decisions for new plants, projects or interventions that might affect neighbourhoods, districts or households); and (3) *market* – acceptance at the level of supply chain and economic fabric of energy (Wüstenhagen, Wolsink, and Bürer 2007).

In line with what has been defined in PARENT D3.1 - *Scoping paper on societal acceptability and RRI* - we also recall the following points about how social acceptability is specifically conceived in PARENT:

1. There is a principle of 'acceptability' qua legitimacy and ethical 'rightness' of policies, regulations, applications, technologies and developments which we try to pursue in the three PARENT Pilots. That is to say, that there is an ethically and socially acceptable way to innovate energy systems, regardless of the extent to which such innovation is accepted at the market or household levels. This may be termed a normative level, that nevertheless refers to empirically verifiable events, especially as these make up individual decision making and reasoning about smart meters and smart energy;
2. There is a *de facto* 'acceptance', mainly in terms of the ways in which people, in their everyday practices interact with energy monitoring devices and applications: whether or not they actually change behaviours, and whether or not new forms of interactions stabilize and can be discerned. For instance, people enjoying the use of energy platform regardless of the fact that they are required to share private consumption data which they would not be willing to share had the platform not existed.

Therefore, from the perspective of the PARENT project and its intervention in the three specific Pilots (Amsterdam, Bergen and Brussels), the social acceptability of the Platform is to be promoted and understood both according to an ethical principle of acceptability and an actual acceptance in practice and by trying to involve as much as possible the three interrelated dimensions - socio-political, community, market.

As a final remark, we highlight that the feasibility of each Living Lab to address these dimensions will be greatly affected by the general nature of PARENT research design, the specific contingencies of each piloting area and the specific composition of the living labs themselves. For instance, a Living Lab that includes no market actor from the energy value chain and only interacts with institutions or consumer associations will be unlikely to be able to address effectively market acceptability and acceptance of the Platform. Similarly, a Living Lab that includes no consumer associations or household representative will understand and tackle community acceptability and acceptance only to a limited extent. As much as possible, through the *Living Lab protocol* (D7.1), we will pursue convergence on the

topics addressed and on the way to map the specific characteristics of the LLs in Amsterdam, Bergen and Brussels.

4.2 How is it practiced and studied?

The PARENT Project's approach towards RRI is oriented to practically in two different ways: (1) the ELSA frame developed in WP2, focuses on monitoring and assessing mainly the ethical and legal aspects of PARENT intervention and, in particular, of the Platform; (2) the methodological orientation of Living Labs (with the involvement of local stakeholders) strives to ensure overlap with local needs and understanding of energy platforms into PARENT Platform's overarching design and testing. Formally, this is described and captured by the interplay between the works of WP3 and WP7 in PARENT project.

This deliverable provides three tools (see Annexes) to support social acceptability in PARENT Living Labs. For simplicity, the tools target a process perspective – the social acceptability of the living labs as a methodological process – and a substantive perspective – the social acceptability of the Platform. To these regards, we hold that there are both principles of acceptability to be pursued and acceptance to be assessed ***in*** and ***through*** PARENT.

The tools are the following:

- *Living Labs Guideline for Social Acceptability* (Annex 1) – Principles to support PARENT partners in the setting, running and management of Living Labs. These principles are based on literature on LL as a methodology, informed by Human-centred (HCD) and participatory design (PD) for co-creating innovation[4], and the pillars of RRI;
- *Check-list for Social Acceptability of Living Labs* (Annex 2) – Check-list for assessing how the principles have been implementation in the Living Lab of each Pilot;
- *Discussion Guideline for Social Acceptability of the Platform* (Annex 3) – Identification of relevant areas and topics to support Living Labs on focusing the scope of their activities around social acceptability of the Platform

We summarize the interplay of the tools of this deliverable with their place within PARENT scope in Table 1.

	PARENT intervention	
Social Acceptability	*Living Labs*	*Platform*
Acceptability (in-principle)	To be pursued and guided by the PARENT Project's partners with the use LL Guideline (interplay between Annex 1–D3.2 and D7.1)	To be pursued through integration of LL outcomes into Platform design (interplay between Annex 3–D3.2 and D7.1)
Acceptance (de facto)	To be assessed by the PARENT Project's partners through Survey for LL (Annex 2-D3.2)	To be inquired through Discussion Guideline for LL (Annex 3-D3.2)

[4] PARENT Deliverable 3.1 – Scoping paper on Societal Acceptability includes a dedicated section on these fields.

Table 1: Overview of tools for Social Acceptability in PARENT

5 Conclusion

In this deliverable, we defined PARENT's Living Labs in line with a design research methodology that aims at co-creating innovation through the involvement of aware users and local stakeholders. As such, Living Labs are integral part of PARENT interventions with their own agency and impact in the real life settings of the pilots, and not only in relationship to a technological platform. Therefore, LL themselves fall into the scope of PARENT interest for doing RRI and being pursued with attention to social acceptability. We defined social acceptability as a principle and as a goal to be pursued in practice. In particular, in this deliverable we developed three specific tools (included in the Annexes) to support the execution and assessment of socially acceptable living labs, and to guide the work of Living Labs in steering the social acceptability of the Platform.

6 References

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ANNEX 1 – Living Labs Guideline for Social Acceptability

The present Annex is designed to support PARENT partners in the Pilots (Amsterdam, Bergen, Brussels) to implement and execute Living Labs with principles of social acceptability in mind. This Annex complements Deliverable 7.1 – *Living Lab Protocol*. Currently, the most likely approach the executing LL is through three workshops in each piloting area. However, the specific details will be defined by taking into consideration the local context of each area and the related stakeholders. This aspect will be clarified and defined in D7.1.

The Annex is composed of four main parts: stakeholders involvement and stakeholders engagement; trust building; empowerment; spontaneity and realism. These parts are derived from the combination of state of the art knowledge on LL as a methodology informed by Human-centred (HCD) and participatory design (PD) for co-creating innovation and the pillars of RRI. Table 2 summarizes these aspects.

Level	***Dimensions***
PD / HCD literature on LL	Real-life experimentation; Involvement of end-users [and stakeholders]; Continuity; Spontaneity; *Realism; Openness; Empowerment of users*
RRI pillars	Governance; Public engagements; Gender equality; Open Access/Open Science; Ethics; Sustainability; and Privacy and personal data protection

Table 2: Basis for the definition of the LL guidelines for Social Acceptability

General principles for Living Labs

Stakeholders involvement and engagement

1. Strive for **identification and inclusion of heterogeneity** in the pool of stakeholders participating to the LL. Multiplicity of perspectives are valuable in LL and might be sought by diversifying typology of stakeholders and demographics.
    a. Typically, energy related projects tend to focus on traditional actors (*e.g.* DSO, Public Administration, Telcos). These are certainly relevant, but they portray very specific stances on innovation in energy and energy platforms. Consumer associations, interest groups, individual citizens, energy cooperatives might all have a interests and relevant input on PARENT intervention.
    b. Age group, gender, ethnic groups might all be relevant to diversify perspectives in the outcomes of LL. While achieving diversity for institutional stakeholders might be difficult, this can be pursued at the level of seeking involvement in the LL of end-users from PARENT pilot.
2. Establish a **reference contact point** that can provide clarifications or support before and/or after specific activities of the LL

3. Understand and clarify with each stakeholder their why they are valuable to PARENT LL and how PARENT LL can be valuable for them, so to create a **mutual understanding** of each party's expectation and reason to participate.
    a. Some stakeholders might be satisfied with the actual involvement in an international R&D project (as a form of pride and recognitions) others might see in LL an opportunity to network with relevant other actors, others again might see in the participation to LL the pursuit of their respective institutional mission statements. Keep these in mind when negotiation involvement and defining both the activities, their outcomes and follow-ups
4. Regardless of how many and what type of activities are performed with stakeholders in LL, devise a **communication or engagement strategy** that does not leave them detached from PARENT in the periods between the activities. Convening once every 6/8 months with no interactions in between might make difficult to have fruitful interaction with them.
    a. Small updates before and after a given LL activities, either via e-mail communication, social network group/page, newsletter, can be an important means to maintain stakeholder engagement
    b. Inform them about other R&D activities which you or your Department are involved in and that might be interesting for them
    c. How to maintain engagement effectively also depends on the stakeholders themselves. It can be a possibility to involve them in the discussion and definition of this aspect.

Trust building

5. **Outline as clearly as possible the type of involvement**, before formalizing inclusion of a stakeholder in the LL (*e.g.* objective of LL, expected effort, overall unfolding of the process).
    a. Basically, stakeholders should be informed about and know what they are entering into, before making the decision to enter the LL.
    b. LL are open ended processes that often cannot be planned in all details early on (since many aspects also depend on negotiations), however, it can be made clear to stakeholders what has already been decided and settled and what is flexible to negotiation (*e.g.* if the methodology for interacting has already been settled to be the workshop one, then say o. If it is open to negotiations with stakeholders then explain so.)
6. In line with the ELSA approach (D2.1), produce a informed consent or memorandum of understanding for stakeholders participation which clarifies: treatment of data generated in LL, issues related ot privacy, ownership of LL outcomes and rights to (re-)use, as well as objectives of LL and expected type of involvement
    a. Given that content and activities outcome in LL are in part co-produced, it is reasonable to provide rights of access and to use (*e.g.* through small reports and briefs)

7. Verify with each stakeholder any particular **concern or requirements for their participation** and try to tackle it as best as possible (*e.g.* some might want to be involved, but do not want publicity; others might need a form of recognition of their involvement to devote their time to specific project)

Empowerment

8. Design the core LL activities in a way they are manageable by all stakeholders involved, both at the content and organizational levels
    a. Technical experts and non-experts might have different attitude and behaviour towards the complexity of a given discussion, activity, workshop or topic in general. Therefore these should be prepared and performed in a way that they are as inclusive as possible.
    b. Different stakeholders might have different challenges in participating at given times or days of the week as well as to reach specific locations
9. Pay attention to **existing or emerging power relations** and try to mediate them in a way that stakeholders do not feel hindered in participating actively. For instance, non-experts or non-institutional stakeholders might be shadowed by those ones who make of negotiations, public speaking or lobbying (*e.g.* CEOs, politicians, managers) a core part of their job.
    a. Such a power relation does not only play out in the execution of activities. It is also portrayed in the general configuration of actors in the energy domain. For instance, it might seem that the DSO's perspective might be the more relevant and authoritative, but in the context of PARENT – a participatory platform for energy management – the top-down, institutional, formal position of the dominant actor is not necessarily the most relevant one. Future end-users (citizens, dwellers, local associations) might provide valuable insights and shall be deemed relevant as well.
10. Empowerment of stakeholders should have some concrete implications for PARENT outcomes, mainly the Platform. Stakeholders participation in LL shall not be a formal exercise of engagement, but rather a methodology for integrating knowledge from LL into the Platform. Stakeholders should be given a voice on PARENT related matters, a voice that has a concrete impact.
    a. The level at which such empowerment plays out shall be defined and clarified as early as possible so that everyone participating in the LL is in line with that and no false expectation are generated.

Spontaneity and realism

11. To be efficient and constructive, as a collaborative methodology, LL should be able to concretely integrate stakeholders' contributions and participation. It is important that flexibility is present and that not all decisions are already taken in advance, a priori. This concerns both the practical and the content levels of *how* conducting the

LL and *on what* to focus on exactly. For instance, if stakeholders are keen to have a full day event instead of half day, your approach to the LL should provide some flexibility in trying to satisfy such requests.

12. To be efficient and constructive, as a collaborative methodology, LL should focus on those aspects that have actual relevance for the involved stakeholders. While visions of technological futures and/or ground-breaking innovation might be helpful to trigger and provoke discussion, the specific subject matters that are harnessed within the LL shall focus onto a reference context that is concrete and which all stakeholders can empathize with.

ANNEX 2 – Checklist for Social Acceptability of Living Labs

The present Annex is designed to assess social acceptability of/in PARENT Living Labs in the Pilots(Amsterdam, Bergen, Brussels). It is intended as a simple assessment tool against the principles highlighted in Annex 1, D3.2.

This Annex is supposed to find synergy with and complement Deliverable 7.1 – *Living Lab Protocol*. Indeed, as clarified there, it will be used to build the final reporting document.

The approximate date for executing this assessment is M30 in conjunction with the closing of Pilot activities (WP6) and Living Labs (WP7).

Addressees (or Recipients)

This small survey is designed to assess how the principles have been implementation in the living lab for each PARENT's pilot area. Thus, is addressed to PARENT partners that had leading roles in the preparation and setting up of the Living Lab in the piloting area (Amsterdam, Bergen, Brussels).

It is advisable that the person in charge of the LL process replies to this small survey. It will be administered as a word document and collected to build up the final reporting documents connected with the LL.

How to answer

The largest part of the survey is made of closed questions with multiple choices.

For the few open questions that are present, please provide argumentations to your answers an try to be concrete in their details (refer to concrete events, entities or problems and do not just refer to generic problems).

Please, provide an answer to all questions.

Checklist for Social Acceptability of Living Labs

1. **Basic information on Living Lab**
    a. In which piloting area did this LL take place (Amsterdam, Bergen, Brussel)?

    b. Which PARENT partner is formally responsible for the LL?

    c. When was the LL official launched and until when remained (will remain) active?

    d. What kind of activity/ies did build up the backbone of the LL (e.g. mid-/full-day workshops; interviews; focus groups, questionnaires)?

2. **Heterogeneity of stakeholders. What different kind of stakeholders have you tried to involve in the Living Lab?** (*please, include the number of stakeholders per each category as identified in the table. Leave blank as 0*)

	Energy market	Energy devices & technology	Energy awareness/education	Energy regulation	Other
Institutions and public bodies					
Grassroots orgs./Informal groups					
Companies					
Unaffiliated representatives					
PARENT Pilot participants					
Other					

If you have used category "Other" in the table, please specify further here:

3. **Heterogeneity of stakeholders. What different kind of stakeholders did take part in the actual execution of Living Lab?** (*please, include the number of stakeholders per each category as identified in the table. Leave blank as 0*)

	Energy market	Energy devices & technology	Energy awareness/education	Energy regulation	Other
Institutions and public bodies					
Grassroots orgs./Informal groups					
Companies					

Unaffiliated representatives					
PARENT Pilot participants					
Other					

If you have used category "Other" in the table, please specify further here:

4. **During the initial process for negotiating stakeholders' involvement into the Living Lab, did you present and explain them the following aspects?** (*mark with X the relevant fields in the table*)

	Yes, to all stakeholders	***To most stakeholders***	***Only to a few stakeholders***	***To no stakeholder***
The reason why their participation would be relevant for PARENT				
The reason why their participation could be valuable/interesting for themselves				
The type and amount of effort expected from their participation				
The overall purpose of the LL in relation to PARENT objectives				
The overall design of the LL (*e.g.* the general principles, the chosen methodology...)				

5. **Engagement & communication. In terms of communication and engagement with the stakeholders of the Living Lab, to what extent did you provide communications about the following aspects?** (*mark with an X the categories which apply*)

	About PARENT (e.g. updates on general project developments, or insights from LL in other cities)	About the LL (e.g. updates or information about specific activities of the LL and their outcomes)	About energy and energy platform in general (e.g. experiences form other project; major

			news or developments in the energy domain)
Never	[ ]	[ ]	[ ]
Before the LL workshops	[ ]	[ ]	[ ]
During the LL workshop	[ ]	[ ]	[ ]
Afterwards the LL workshop	[ ]	[ ]	[ ]
Other: _____	[ ]	[ ]	[ ]

6. **Empowerment. Can you describe, in a few sentences, whether or not the LL empowered actors that are typically marginalized in the local area of the LL (e.g. consumer associations, NGOs)?** (*For instance, did the LL session took place in place/time that were easily accessible by all stakeholders? Were the various communications designed in very technical terms or were tailored to be easily understood by different type of stakeholders? Did the activities focus on at least some aspects which had real concern for all stakeholders? ...*)

7. **Spontaneity and realism**. Can you describe, in a few sentences, any episode or aspect in the LL which was a direct outcome or implication of stakeholders input or will? How did their participation influence your initial plans on how you thought the LL would play out?

ANNEX 3 – Discussion Guideline for Social Acceptability of the Platform and piloting

The present Annex is designed to support PARENT Living Labs (Amsterdam, Bergen, Brussels) to focus the scope of their activity around the topic of social acceptability of the Platform. This Annex is supposed to find synergy with and complement Deliverable 7.1 – *Living Lab Protocol*. The Annex does not imply a specific method for the administration of the questions (e.g. in focus groups, roundtable meetings, workshops). It is important the knowledge generated is not lost. Tools such as note-taking, recording and transcripts shall be used for the production of the Living Lab reports (Deliverables 7.2-7.4) as clarified in the Living Lab Protocol (Deliverable 7.1).

The LL will convene more than once at different stages during the life of PARENT intervention. The areas of attention highlighted in this Annex are considered relevant throughout the project. However, a proper contextualization with regards to the given time reference period will be needed and will be contingent to each specific piloting area.

About participants' experience in the pilot phase

1. Were participants properly introduced to the scope of the piloting activities and their involvement in the project (*e.g.* informed consent, information material)? How could this aspect have been improved?
2. What kind of problems (technical and non-technical ones) can the participants encounter throughout their involvement in the piloting phase (*e.g.* malfunctioning of devices; doubts and concerns about their participation in PARENT piloting) and how can they be supported?
3. How can participants engagement be maintained with regards to the use of the sub-metering devices, the related platform application and, ultimately, with regards to their permanence in the piloting phase?
4. What kind of withdrawal procedure can be envisioned for participants who no longer wish to participate (*e.g.* will the equipment be recovered, how and by whom)?

About the Platform's features and design

5. Do the Platform features target households as heterogeneous entities – internally (*e.g.* made of parents/children, workers/non-workers, males/females) and externally (*e.g.* house size, households composition, building's efficiency class)?
6. Can the Platform account for different usage types and patterns or does it only conceive one type of end-user? What are the possible implications of this?
7. Does the overall design of the Platform sustain energy efficiency/behaviours improvements based on a unique motivating value (*e.g.* is financial saving the only trigger underlying improvements)? How can a richer set of motivating values be achieved?

8. How do Platform features, or features' underlying principles, try to satisfy needs that are perceived (or have been discussed) as relevant by local stakeholders?
9. What kind of risks to privacy and data security can be perceived by end-users[5] with regards to the Platform features and general architecture?
10. How is the Platform designed to ensure protection of end-users' privacy and data security?
11. In connection to the local context of the piloting area, how can the Platform made sustainable over the medium and long term? How can we ensure that the experiences developed in the field of the pilot phase are beneficial to the local context?

[5] For instance, they might think or fear that detailed analytics of energy consumption patterns reveal presence/absence of people at home when shared; or they might have general concerns about security of data when these are shared across the Internet.