



Project no. 608472

INSPIRE-Grid

IMPROVED AND ENHANCED STAKEHOLDERS PARTICIPATION IN REINFORCEMENT OF ELECTRICITY GRID

Instrument: Collaborative project

Thematic priority: ENERGY.2013.7.2.4 – Ensuring stakeholder support for future grid infrastructures

Start date of project: 01 October 2013

Duration: 40 months

Deliverable 5.3

FINAL HANDBOOK OF GUIDELINES

Revision: v2.0

Submission date: 2017-01-20

Potsdam Institute for Climate Impact Research (PIK) (6)



Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential , only for members of the consortium (including the Commission Services)	

Submitted

Author(s)		
Name	Organisation	E-mail
Andrzej Ceglarz	PIK	andrzej.ceglarz@pik-potsdam.de
Andreas Beneking	PIK	andreas.beneking@pik-potsdam.de
Saskia Ellenbeck	PIK	saskiael@pik-potsdam.de
Antonella Battaglini	PIK	antonella.battaglini@pik-potsdam.de

Status of deliverable		
Action	By	Date
Verified	Antonella Battaglini, PIK	13.01.2017
Approved (GC)	Stefano Maran, RSE	18.01.2017

Abstract
<p>Referring to the objectives of the INSPIRE-Grid project, this deliverable presents the revised version of the preliminary guidelines for engaging stakeholders in transmission development projects, laid out in Deliverable 5.2. It enhances the formerly introduced five principles for providing guidance as to how the engagement process should be structured, as well as the ten step process for assisting Transmission System Operators (TSOs) or other leaders of transmission development projects in their interactions with stakeholders, with findings of Work Packages 2, 4, 5, 6 and 7, especially with the results of the fieldwork as part of the case studies in Norway and France.</p> <p>This report reviews all elements from the broad perspective on formal and informal stakeholder engagement, developed in Deliverable 5.4. It shows, that the five principles can be seen as indicators for a process that stakeholders could perceive as trustworthy. The broadened ten step process highlights the central role of the project manager or facilitator in the interaction with stakeholders and how trust-building activities can contribute to the acceptability of the engagement process.</p>



“Version history” that will become “Revision history” when the final “version” is converted into .pdf format and submitted to the European Commission.

Date	Version	Author(s)	Comments
9.01.2017	0.1	Ceglarz	Initial draft
10.01.2017	0.3	Beneking, Ellenbeck, Battaglini	Revised draft
11.01.2017	0.5	Ceglarz	Second draft
18.01.2017	1.0	Beretta, Maran, Meldal, Späth	General comments to the deliverable
20.01.2017	2.0	Ceglarz, Beneking, Ellenbeck, Battaglini	Final version



TABLE OF CONTENTS

	Page
LIST OF FIGURES	5
LIST OF ACRONYMS	6
EXECUTIVE SUMMARY	7
1 INTRODUCTION	9
2 REVISITING KEY PRINCIPLES	12
3 INFORMAL PERSPECTIVE ON STAKEHOLDER ENGAGEMENT	
GUIDELINES	16
3.1 Step 1: Identify stakeholders	17
3.2 Step 2: Map stakeholders	18
3.3 Step 3: Define key issues.....	20
3.4 Step 4: Understand stakeholder values.....	20
3.5 Step 5: Determine the engagement level.....	21
3.6 Step 6: Select assessment methods and engagement tools.....	22
3.7 Step 7: Draft engagement plan	25
3.8 Step 8: Prepare for engagement	25
3.9 Step 9: Implement the engagement plan	26
3.10 Step 10: Review the engagement process.....	28
4 CONCLUSION	29
5 REFERENCES	31
ANNEX 1 – IMPROVED STAKEHOLDER ENGAGEMENT MODELS	34



LIST OF FIGURES

	Page
Figure 1: The relation between principles guiding the structuring of engagement process and trustworthiness.....	15
Figure 2: The classification of stakeholders according to the degree they can affect or be affected by a power line project	18
Figure 3: A schematic framework of methodological steps for stakeholders' analysis.	19
Figure 4: Updated version of decision tree for selecting engagement tools.....	23
Figure 5: Functional dynamic model for stakeholder engagement, tailored to standard steps of procedures for power line planning and the results of the interaction with stakeholders and validation workshops.....	24



LIST OF ACRONYMS

DoW	Description of work
EMF	Electromagnetic fields
MCA	Multi-criteria analysis
NGO	Non-governmental organisation
RES	Renewable energy sources
TSO	Transmission System Operator
Web GIS	Web-based geographic information system
WP	Work package



EXECUTIVE SUMMARY

The goal of Deliverable 5.4 is to propose a final handbook of guidelines on how to design the communication and participation processes in order to increase public acceptance of transmission grid projects. These guidelines are structured around the work which has been presented in the preliminary handbook of guidelines (Deliverable 5.2). However, the document presented here is complemented with findings of Work Packages (WP) 2, 4, 5, 6 and 7, especially with the results of the fieldwork as well as with insights from secondary literature and through constant exchanges with all INSPIRE-Grid partners.

According to the work completed in the improved theoretical framework (Deliverable 5.4), the five overarching principles, that are intended to provide general guidance as to how the engagement process should be structured (consistency, transparency, timeliness, proportionality and inclusiveness), can be recognized as elements that make the engagement process trustworthy. In addition to that, the ten steps proposed in the preliminary handbook of guidelines, which were intended to help organizing the engagement process¹, are substantiated with recommendations derived from data gained throughout the interaction with stakeholders in the INSPIRE-Grid case studies and through exchanges with project partners.

The findings generated during the research process in INSPIRE-Grid WPs confirmed that the approach presented in Deliverable 5.2 is appropriate. Therefore D5.3 is not a fundamental reconstitution, but rather a complement. The findings contributed to the review of the abovementioned ten steps for the organization of the engagement process from the perspective of informal aspects of the engagement and decision-making process. Our data shows the central role of a respective project manager, what leads to the conclusion that such a role is certainly not an easy task. A project manager is a key person that is able to build trustful relationships with and among affected stakeholders. In order to achieve that, specific examples of trust-building activities are described.

It should not be forgotten that a TSO as a company is a stakeholder as well and its foremost interest and duty is to keep the electricity system stable and to ensure a secure electricity supply. However, as long as the stakeholder engagement is not understood and integrated as an elementary component of the firm's policy, a single project manager will not be able to change the whole process only by herself/himself. The overall company's structure should guarantee that project managers have a direct contact to affected stakeholders. Exchanges between project managers should be facilitated and – as they mostly have a technical background – participation in internal trainings on communication by public relations divisions or in external seminars or workshops should be encouraged. This is also relevant for other (mostly technical) employees, who create an outside image of the company too.

¹ 1) identify stakeholders, 2) map stakeholders, 3) define key issues, 4) understand stakeholder values, 5) determine the engagement level, 6) select assessment methods and engagement tools, 7) draft engagement plan, 8) prepare for engagement, 9) implement the engagement plan and 10) review the engagement process



The proposed measures in this deliverable will not provide a general acceptability of grid extension projects and satisfaction from the engagement process in all possible cases among all possible stakeholders. There can always be actors who can complain or be critical on certain issues. However, trust-building activities can definitely reduce perceived power imbalances between involved stakeholders and a TSO, decrease conflicts potential, facilitate the dialog between opposing visions of the energy system and contribute to constructive solutions and social innovations.



1 INTRODUCTION

The goal of this deliverable is to propose a final handbook of guidelines on how to design the communication and participation processes in order to increase the public acceptance of transmission grid projects. The guidelines are based on the work which has been presented in Deliverable 5.2, but this version is complemented mainly with findings of Work Packages 2, 5, 6 and 7, but also with some insights from secondary literature and through constant exchanges with all INSPIRE-Grid partners.

Since Deliverable 5.2 presented five overarching principles that are intended to provide general guidance as to how the engagement process should be structured (consistency, transparency, timeliness, proportionality and inclusiveness) and ten steps proposed to help organizing the engagement process (identify stakeholders, map stakeholders, define key issues, understand stakeholder values, determine the engagement level, select assessment methods and engagement tools, draft engagement plan, prepare for engagement, implement the engagement plan and review the engagement process), the work presented here is built around these elements.

Findings gathered in abovementioned WPs confirmed that the approach presented in Deliverable 5.2 is appropriate and valid and it does not need a fundamental reconstitution and changes. However, these findings have led to additional conclusions regarding the engagement process, which, considering the insights of the improved theoretical framework (Deliverable 5.4) and the empirical data from the three case studies include the informal aspects of the engagement and decision-making processes and underline the role of the project manager. Therefore Deliverable 5.3 is based on the recommendations included in Deliverable 5.2, but it shows a different perspective from which the engagement and decision-making processes can be carried out and analysed.

As mentioned, the guidelines presented here aim to increase public acceptance of grid extension projects by designing an appropriate engagement process. According to the improved theoretical framework (Deliverable 5.4), it should be noted that the aim of an adequately carried out engagement process should be the acceptability of the new transmission lines. Acceptability results from a process that makes all the best acceptable to the greatest number of people and it refers to a given issue (like grid extension project) before its implementation (for more details see Deliverable 5.4). The process of engagement itself is here very important, since it has been acknowledged that negatively perceived processes increase chances of stakeholder opposition towards grid development projects (Cain and Nelson 2013; Keir et al. 2014). Additionally, there is a broad consensus among scholars that modern grid planning processes should evolve from expert-, top-down driven approaches towards participatory processes with strong involvement of stakeholders (Devine-Wright and Batel 2013; Keir et al. 2014; Knudsen et al. 2015; Komendantova et al. 2015; see also Deliverable 3.2 and Deliverable 5.2).



Scholars have researched intensively phenomena related to the engagement and decision-making processes. They proposed different frameworks, designs and methodologies that could contribute to creation of the stakeholders' acceptability. For example, Luyet et al. (2012) proposed a general framework for public participation and elements included in this study have been used in the design of the preliminary guidelines in Deliverable 5.2. In a more comprehensive way, Lowndes et al. (2006) proposed the CLEAR framework to explain why people participate in official decision-making processes, addressed to authorities and public officials responsible for decision-making processes at the local level. They use the abbreviation of "CLEAR" which refers to different features of participation processes. In this context the first letter (C like *can* to participate) refers to the ability to participate depending on stakeholders' resources necessary to make their argument², while the second item is related to the importance of the participation and its linkages to stakeholders' sense of identity (L refers to *like* to participate). Next, the authors recall the existing infrastructure of civic networks and organisations³, which *enable* (E) stakeholders the participation and the extent to which decision-makers are interested in stakeholders' opinion (A like to be *asked*). Finally, they state that stakeholders participate in the decision-making processes when the system is *responsive* (R), so stakeholders can feel as being empowered and exerting the influence on the process' outcome. As a more specific approach, Whitton et al. (2015) proposed a conceptualization of a social sustainability framework for energy infrastructure decisions, emphasizing a process of community group prioritization and visioning.

Despite all these enriching and helpful contributions, scholars have still called for solutions aiming at fostering the acceptability for new power lines (Cohen et al. 2014). Very useful and relevant in this context is the toolkit for project managers to increase the acceptability of new energy infrastructure proposed by Raven et al. (2009). However, this methodology has not been tested in the INSPIRE-Grid case studies (WP6), because of different research designs applied for the implementation of chosen methodologies (WP4 and WP6) and the different thematic scope of this toolkit. Namely, in their work Raven et al. (2009) concentrate on new renewable energy sources (RES) projects, whereas analysing the engagement and decision-making processes related to grid extension projects requires another approach due to general characteristics of power lines and local attitudes towards them (Cohen et al. 2014; Knudsen et al. 2015).

Nevertheless, findings generated through the interaction with stakeholders (WP5, WP6 and WP7) are in line with the approach offered by Raven et al. (2009), which argues that a process success is significantly related to the project manager's performance. Such starting point represents a novelty in designing stakeholder participation processes for grid extension projects. Therefore, in this Deliverable we will present the already introduced five principles and ten steps of stakeholder engagement processes from a different angle. They will be

² The issue of lack of sufficient resources leading even to non-participation is discussed also by other authors: see for example Haß at al. (2014).

³ This argument is strongly related to the concept of social capital. For more information: see Deliverable 5.4.



combined with “soft factors” of stakeholder participation derived from the improved theoretical framework (Deliverable 5.4) and the empirical results in the three case studies, namely with the issues of trust and, to some extent, procedural justice (see Deliverable 2.3). These two elements can be understood as preconditions of stakeholders’ attitudes, but in this context not towards grid extension projects, but towards the participation and engagement process⁴. In addition, these factors will be presented in relation to the broad understanding of informal aspects of stakeholder participation (Deliverable 5.4) and will be substantiated with examples from our case studies.

This deliverable is structured as followed: the next chapter will revisit the five key principles for providing guidance as to how the engagement process should be structured. The third chapter reviews all elements of the ten step process for assisting Transmission System Operators (TSOs) or other leaders of transmission development projects in their interactions with stakeholders from the broad perspective on formal and informal stakeholder engagement, developed in Deliverable 5.4. We will close with summarizing the main findings and some general remarks on stakeholder engagement in grid development projects.

⁴ In Deliverable 5.1 it is clearly stated that attitudes have always attitude objects, in this case the official decision-making process (including the engagement and participation measures) can be understood as such object.



2 REVISITING KEY PRINCIPLES

It has been already acknowledged in the INSPIRE-Grid project that participation and engagement processes are important in gaining the acceptability for grid extension projects and are mutually beneficial for affected stakeholders, as well as for actors, who carry out these processes (for a detailed overview see Deliverables 3.2 and 5.2). However, it should be remembered that stakeholder participation and engagement processes are only parts of broader decision-making processes and frameworks related to grid planning. Thus, they are strongly embedded in officially structured, institutionalized and formalized settings of procedures and rules, which are usually regulated by law.

The undertaken work determining criteria and principles of good stakeholder participation so far concentrated rather on elements resulting from these institutionalized and formalized settings (see also Deliverables 3.2). In the Deliverable 5.2 five overarching principles, which are intended to provide general guidance as to how the engagement process should be structured, have been introduced. These five principles are:

- Consistency – engagement should be consistent across multiple projects. This does not necessarily mean that each project will follow the exact same process but rather the overall approach to engaging stakeholders should be consistent.
- Transparency – the entire engagement process needs to be open and transparent. The scope and objectives of the process should be made clear from the outset along with a timeline and details of how stakeholders will be consulted and how their input will be considered.
- Timeliness – involving stakeholders as early in the process as possible is vital to the success of the engagement activities. Early involvement of stakeholders is beneficial not only for the stakeholders themselves but also for the leader of the engagement process.
- Proportionality – in addition to being clear about the scope of the process, it is important for stakeholder engagement to be adequate in the context of the stage of the project. If stakeholders are asked to provide input to a particular issue then there must be a mechanism for including that input in the decision making process.
- Inclusiveness – the engagement process should include a range of stakeholders as broad as possible so that the process accurately reflects the views and opinions of those who will be affected by the project. Particular attention should be paid to include underrepresented stakeholders who might not otherwise have a voice in the process.

These principles refer to regulations determining official engagement's process schemes. However, in the literature there are examples of studies investigating soft aspects of stakeholder participation, like the role of dialogue and consensus-building (Ciupuliga and Cuppen 2013), conflicts as constructive elements of stakeholder participation (Cuppen 2012b) or (mutual) learning of stakeholders during the participation process (Cuppen 2012a). Beside



these contributions, there is still a gap in the literature regarding how the participation is enabled and how different mechanisms and dynamics between stakeholders taking part in the participation process shape the outcomes of these processes (Bell et al. 2012), even though these processes can be more important for the success of the participation process than tools used in it (Voinov and Bousquet 2010). Therefore, in a similar vein, in the improved theoretical framework (Deliverable 5.4) a bigger emphasis was put on “soft” aspects of stakeholder participation, like trust and procedural justice (described in Deliverable 2.3), which are strongly interrelated and can influence each other.

Theoretical considerations related to these elements have led us to the conclusion that there are two co-existing and complementary perspectives on stakeholder participation, which include its formal and informal aspects. The first, *narrow view* on stakeholders’ participation differentiates between legally binding and non-legally binding measures regarding formal and informal participation. The second, a *broader view*, is derived from the institutionalist tradition of March and Olsen (1989) and Ostrom (2010), who refer to cultural aspects of institutions, giving them the meaning of routines, procedures, conventions, roles, strategies and organizational forms around which political activity is constructed and the actual rules-in-use on the ground. Thus, informal participation comprises aspects existing outside of organizational, formalized and institutionalized contexts and structures (for a detailed overview see Deliverable 5.4). Naturally, the role of formal settings should not be underestimated, because informal participation could not exist without a formal decision-making process that establishes a framework for a formal participation in the first place. By doing so, formal procedures facilitate the stakeholder engagement process and create a space for stakeholder interaction, which probably would not have the chance to happen without formal structures. Yet, independently from implemented official procedures or existing rules-in-use that can determine informal participation (like monitoring or sanctioning mechanisms), it is recognized that the more important “glue” that keeps both settings working properly and alive over time, are developed social mechanisms, like trust (Harkes 2006, cited in: Cox et al. 2010).

The role and the relevance of trust has been already shown in the improved theoretical framework (Deliverable 5.4.), therefore we will not discuss it here in detail. At this point, it is however important to refer to the concept of procedural fairness, since it is embedded directly in the formalized decision-making process and it strongly overlaps with trust. These interdependencies and interrelations have been discussed in Deliverable 2.3 that proposed criteria to successfully cope with stakeholders’ needs and concerns. At the level of procedural justice these criteria were:

- determination of the procedure (which stages does it contain)
- determination of persons in authority
- timetable when certain stages of the procedure will take place and its temporal dimensions (e.g. deadlines)



- determination at what point in procedure stakeholders will be informed or are allowed to participate
- all stakeholders that feel affected through a new power line should have the possibility to participate in the decision-making process and express their concerns and needs
- early involvement through information, consultation or cooperation of affected stakeholders
- opinions of all stakeholders should be equally treated
- opinions of all stakeholders should be considered when decisions are made
- authorities should provide appropriate information for all affected stakeholders (freely, easily accessible, regular, comprehensive, about relevant topics)

Our findings show that the abovementioned criteria are indeed crucial for the legitimacy of the decision-making process, but at the same time they are significant indicators of trust. This connection results from the complexity of the phenomena of trust that can exist at three levels simultaneously: interpersonal; social (general); and as being reflected in interactions with public institutions. The latter level is connected to procedural justice and refers to the official framework of the decision-making process. However, it cannot be isolated and analyzed separately from trust at the interpersonal level. Data gathered during fieldworks in the Norwegian and French case studies confirm that a trustful relationship between stakeholders and the project manager can partially (but of course not necessarily) compensate lower stocks of general trust in society and, more importantly, lower stocks of trust in public institutions. It is especially true when a TSO is perceived as formal decision-making process' representative or owner and when it is in general identified and personalized in a person of a respective project manager. These conclusions are also backed by other empirical findings, which identify trust as individual features of actors responsible for carrying out the decision-making and participation process, as well as the characteristics of the process itself (Höppner 2009).

Therefore, the five overarching principles outlined in Deliverable 5.2 are valid and they actually contribute to make the stakeholder engagement process trustworthy. It is also important to keep in mind that each project is very context-specific and it is characterized by a particular set of physical and external features as well as by a unique set of networks of actor relationships across multiple scales and levels (Deliverables 5.1 and 5.4). The relation between these five principles and trustworthiness are illustrated in a figure below (Figure 1). In this sense trustworthiness is understood as a quality of the trustee (embodied at the same time in the process and process facilitator, usually a project manager), while trusting is something that the trustor⁵ does. Hence trust and trustworthiness can be viewed as distinct, but related constructs (for a detailed discussion on this differentiation see Sharp et al. 2013). Formal structures can introduce regulations that could make official engagement processes consistent, transparent, adequately timed, proportional and inclusive, but they should be complemented with face-to-face interaction with the project manager, or another person who is responsible for engagement, and trust-building activities carried out by her or him. Specific

⁵ A trustor is an actor doing trusting and a trustee is a subject (an actor or a process) that is being trusted.



examples describing trust-building activities will be presented in Chapter 3, which will discuss the ten steps proposed to help organizing the engagement process, but viewed from the broader perspective of informal participation.

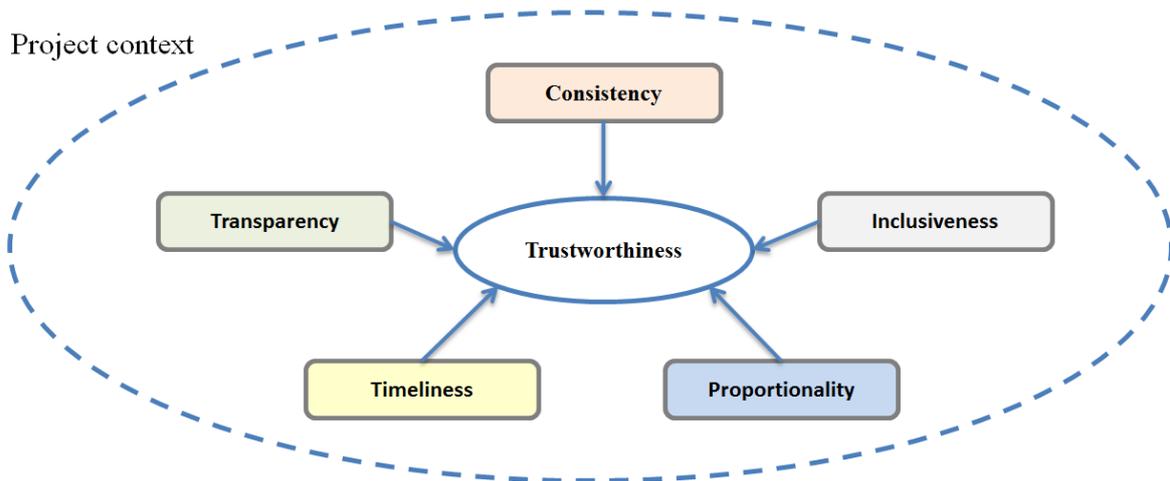


Figure 1: The relation between principles guiding the structuring of engagement process and trustworthiness



3 INFORMAL PERSPECTIVE ON STAKEHOLDER ENGAGEMENT GUIDELINES

Deliverable 5.2 underlined that if an engagement process should be successful it is vital to understand why engagement is needed, what to engage on, who should be involved in the process and when to engage stakeholders. That report proposed ten steps to help organizing the engagement process. These measures were: identify stakeholders, map stakeholders, define key issues, understand stakeholder values, determine the engagement level, select assessment methods and engagement tools, draft engagement plan, prepare for engagement, implement the engagement plan and review the engagement process.

Because of the INSPIRE-Grid project time limits we did not have the possibility to test all of these steps in a constant and consequent manner in the three case studies in Norway and France – in order to do so, we would have to accompany TSOs during several years of organizing stakeholder engagement processes. Moreover, we evaluate selected grid extension projects as not very controversial and conflictual, what could create a delusive impression of perfectly and exemplary carried out engagement processes that do not need further improvements. Nevertheless, due to the diversity of different elements regarding the fieldwork in the case studies, like the stage of the investigated project or the character of stakeholders involved in the interaction (for more details see Deliverable 6.3), we were able to gather important insights on stakeholder perspectives on the engagement process. Therefore, the chapter presented here does not contest the ten steps presented in the preliminary handbook of guidelines, but proposes to review them from the standpoint of the broader perspective on formal and informal participation. This work is backed with concrete examples derived from data gathered in the three INSPIRE-Grid case studies, results of WPs 2, 5, 6 and 7 and complemented with insights from the literature. Since the structure of these ten steps does not need a significant revision, our findings complement especially the ninth point – “implementation of the engagement plan” that concentrates on information provision and communication strategies. These two elements can influence to a large extent whether the engagement process can be perceived as consistent, transparent, adequately timed, proportional and inclusive, not because of official regulatory schemes, but due to the role of a respective project manager, who is responsible for making the process trustworthy. Finally, this part of the Deliverable makes some functional suggestions and recommendations, which could help to create a trustworthy stakeholder engagement process.

While discussing the ten steps of the participation process in the guidelines, we refer to the broad perspective on formal and informal participation. In this understanding, formal participation includes aspects of all official rules and roles that inherit participation process, no matter whether it is a legally binding and regulated process or any other form of public participation (bus tours, field visits, world café etc.). Thus, in this context all ten steps can be interpreted as being elements of the formal participation. In contrast, the informal participation in the context of new power lines can be understood as “day to day” relations between the perceived formal decision-making process representative or owner and



stakeholders, in which the latter are allowed input into decisions. These relations exist under certain process conditions, on which stakeholders are allowed to exert some influence – it concerns stakeholder participation in the process and conditions under which they will operate after the construction of the power line (Deliverable 5.4). Each of these points is going to be presented more specifically below.

It should be remembered that the guidelines here suggested should not be interpreted as being set in stone. There is no panacea for the organization of the engagement process. Moreover, there is no single correct way of undertaking a stakeholder engagement process, as each project will present different opportunities and challenges, therefore it is impossible to offer a “one-size-fits-all” solution. Thus, we suggest to interpret these guidelines as general principles that need to be tailored to the project in question and that should be implemented accordingly to the context of the project.

3.1 Step 1: Identify stakeholders

It is necessary to know with whom to engage if a successful engagement process is going to be undertaken. As already mentioned in the results of WP2 and WP5, both individual stakeholders and stakeholder groups, along with individual representatives of those groups, should be identified and their roles and positions understood.

It is important that the identification of stakeholders is carried out in a transparent and open way to ensure that all interested parties can participate. It could be helpful if stakeholders identified by a TSO up to some point in time, could help in the further identification of other affected parties. It works like a snowball effect in which stakeholders use their existing private and professional networks of relationships in order to help a TSO in identifying people, who could be otherwise omitted. This is especially true due to the fact that networks of stakeholders can be dispersed and they operate at different scales and levels at the same time (Deliverable 5.4). However, it may raise a question about the legitimacy of being a stakeholder and who has the right to have a stake. For example, could a person, who is not directly affected by the new transmission line and who does not live in the affected area, but who has a strong opinion about the new energy infrastructure, be considered as an important stakeholder and involved into the decision-making process? As remarked in the improved theoretical framework, drawing boundaries of the process and the project could be helpful to avoid such confusions and to have a better understanding of what kind of networks of stakeholders exist at different levels.

The identification process cannot be a static tool. It should remain open and should be revised at each stage of the process in order to include as many stakeholders as possible. This is especially true when taking into account that the decision-making process can last for many years. It regards also stakeholders, who show up during the process itself, depending on the changing political situation, including also the supranational level (see for example Ciupuliga and Cuppen 2013; Puka and Szulecki 2014). The identification process may also contribute to the mitigation of the participation paradox (Rottmann 2013), stating that stakeholders are



getting engaged more at later stages of the project realization, where their actual influence on the process outcome becomes limited. If stakeholders are identified properly and early enough, they could get involved respectively early.

Last but not least, it should be ensured that representatives of different and even conflictual stakeholders groups will be included (Deliverable 2.1). Firstly, it is due to the challenge of overrepresentation of certain stakeholders in the engagement process (Schneider 2015), and secondly, since the conflict situations can be constructive in gaining local knowledge and developing innovative solutions for the decision-making process (Cuppen 2012b).

3.2 Step 2: Map stakeholders

The second step indicated in Deliverable 5.2 and comprehensively discussed in Deliverable 2.1 is the stakeholder mapping, according to defined criteria. Those two documents underlined its relevance, especially putting emphasis on the importance to include the typically hard to reach stakeholders, due to the impact of power lines on nearby communities. This point does not need to be changed significantly, however we would like to propose two supplements regarding the approach of stakeholder mapping.

Firstly, Deliverable 5.2 suggested to map stakeholders according to their influence on the process vs. the degree to which stakeholders are impacted by the project. It created a four-element matrix differentiating stakeholders as: highly impacted with low influence, highly impacted with high influence, low impacted with low influence and low impacted with high influence (for more details see Deliverable 5.2). Nevertheless, basing on insights of Chevalier and Buckles (2008), we recommend broadening this differentiation up to nine categories depending on the degree they can affect or be affected by a project. This classification is reflected in a rainbow diagram presented below.

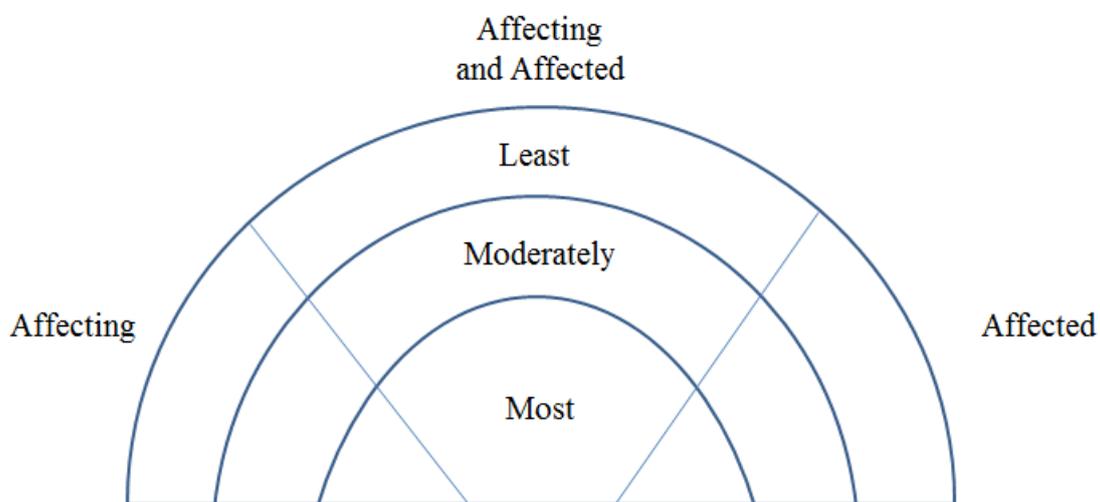


Figure 2: The classification of stakeholders according to the degree they can affect or be affected by a power line project (Chevalier and Buckles 2008).



The approach used in the rainbow diagram allows systematizing stakeholders according to the degree how they affect or are affected by a project, but it should be carried out in a combination with a certain category of need or concern. For example the vulnerability to electromagnetic fields (EMF) will depend to the proximity of a given household from the power line and stakeholder concerned by this will be place differently as according to the concern of security of supply.

Secondly, as demonstrated in Deliverable 2.1, stakeholder analysis can be a powerful tool that can greatly increase understanding of both the make-up of the stakeholder group and the issues which are important to them. However, this work determined the classification of stakeholders according to their needs and concerns. As shown through the work of WP5, needs and concerns that determine values are important in determining stakeholder attitudes towards grid extension projects. Nevertheless, we would like to introduce here a developed methodology necessary for stakeholder analysis proposed by Reed et al. (2009). This approach is presented below.

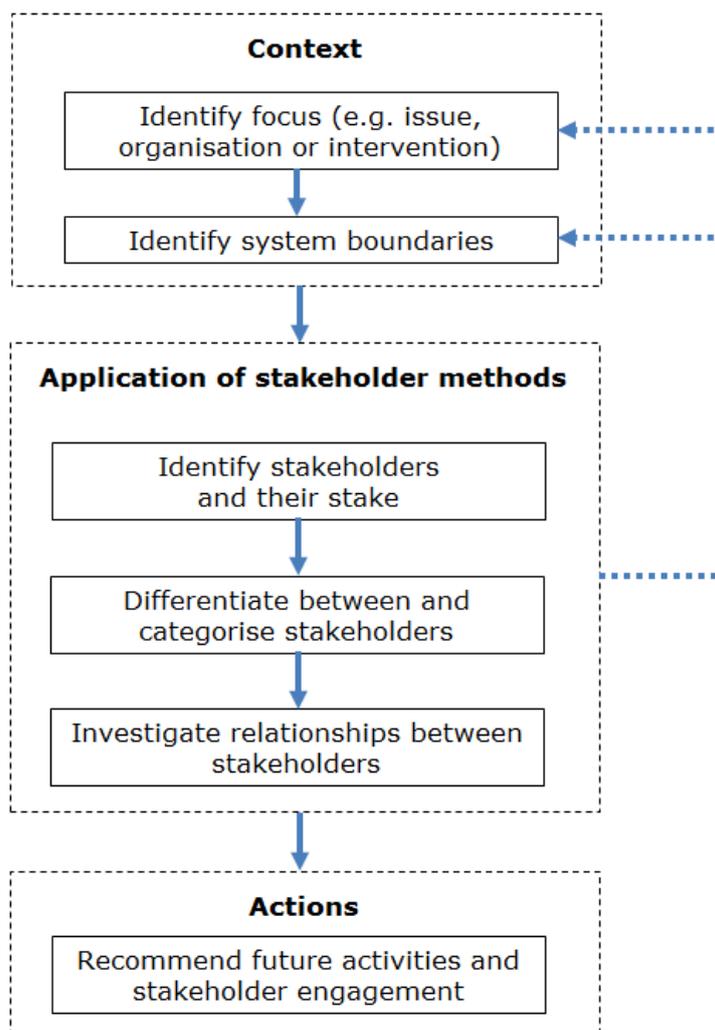


Figure 3: A schematic framework of methodological steps for stakeholder analysis (Reed et al. 2009).



The first phase concerns identification of context-specific characteristics which have been described in Deliverable 5.1 and it enhances also the system boundaries mentioned in the previous point. The second phase refers directly to the identification of stakeholders and their characteristics, but, importantly, an investigation of relationships between stakeholders is recommended (see also Deliverable 2.1 and 5.4). Finally, after these steps, specific actions are foreseen and they will be described in the next points of this report. It should be noted however, that despite of the usefulness of stakeholder mapping, understanding stakeholders according only to fixed and non-flexible criteria could be a misleading solution. Our findings indicate that a single stakeholder can hold different positions at the same time, depending on the standpoint and interests, which he or she is representing. For example a stakeholder, as a citizen, can have a different opinion on a given issue, in comparison to his/her position on the same topic as a representative of an environmental NGO or a trade association. Therefore, it is important to understand the values and issues that they are interested in.

3.3 Step 3: Define key issues

This step refers to a number of key issues that stakeholders are concerned about and which were identified in Deliverable 5.1. Although many, if not all, of these issues will be at stake in most new transmission projects, the relative levels of concern about each issue will likely vary, depending on the characteristics of the proposed line and the make-up of the stakeholder group.

However, defining key issue does not have to relate only to physical aspects of the proposed power line. Findings from INSPIRE-Grid case studies show that affected stakeholders perceive grid extension projects as a part of a broader reality concerning infrastructural investments and projects. They compared their participation in the process to similar engagement processes related to building of a new gas pipeline, oil platforms, airports, quarries exploitation or highways. The last example was mentioned in results of WP7 as well. Therefore, we would suggest that while defining key issues of the stakeholder engagement process, not only local impacts of the power line should be tackled, but also the quality of the process itself that could be questioned by stakeholders as result of earlier negative experiences. In this context, intensive exchanges of ideas, methods and experiences with project managers from other sectors and projects could be helpful (see also Deliverable 7.2). Moreover, this conclusion is related to the general view on the national energy policy and its goals. It might happen that a grid extension project will be questioned not because of the line itself, but because of the attitude to the energy sources that have produced transmitted electricity or the final destination where electricity is going to be transmitted.

3.4 Step 4: Understand stakeholder values

Understanding stakeholder values has been one of the key focus areas of the INSPIRE-Grid project. Their role has been acknowledged through the whole work of WP5 and listed in detail in Deliverable 5.1. While there might exist competing values, to the greatest extent possible, the project should be placed in the context of the overall societal value system. Values to be



considered can range from the nature of the energy system (avoiding waste, reliability, long-term trajectories) to process criteria (fairness, honesty and transparency) via more general concepts about rights (autonomy and freedom, choice and control) and the environment (environmental protection, nature and naturalness).

In addition to the detailed description of the societal and energy system values provided in Deliverable 5.1, interviews with stakeholders in INSPIRE-Grid case studies revealed that to a large extent they appreciate and support the idea of the “public good” or “common good” – understood as wealth, security of electricity supply or climate protection. The subjective importance of the “public good” increases the motivation of stakeholders to desist from their own interests in the name of the collective interest and, as a value, it is strongly determined by the general trust into society. However, for different stakeholders the same value might be interpreted differently or understood as customary. In order to avoid interpretative disputes, there should be a space provided which would enable a constant interpretation of given terms or values and which would include them in the further steps of the process.

Additionally, interviewed stakeholders attached significance to the often controversial issue of laying transmission lines underground. Although some of stakeholders were aware that such a solution can be more expensive, they expressed doubts about TSO’s claims that it might be technically not feasible and most of the interviewees (even some official stakeholders) presented a strong preference to use underground or undersea cables. This finding implies that “hard” elements of grid extension projects, like impacts on the overall costs of the investment or its technical feasibility, might play a less relevant role than emotional issues, like place attachment or landscape issues. Thus, it is an important indicator for the process facilitator that even offering monetized compensation measures cannot always be adequate in dealing with stakeholder values (see also Navrud et al. 2008; Schmidt and Liliestam 2015). Therefore, firstly we suggest considering to use tools in the engagement process tools, which could indicate and structure stakeholders preferences and values, like MCA or Web GIS (see Deliverables 4.3 and 4.4). Secondly, we recommend considering and presenting different technical possibilities, even if they are still under internal investigation of a TSO (see for example Thomas et al. 2016).

3.5 Step 5: Determine the engagement level

The INSPIRE-Grid project has specified four levels of engagement: information provision, consultation, co-decision and empowerment. While it is accepted that it is not always feasible to grant stakeholder full empowerment rights when it comes to transmission development, it has been assumed that TSOs should be encouraged to involve stakeholders in the decision-making process to the greatest extent possible. However, findings gained in WP7 show that there is a big potential in improving the relatively lower levels of stakeholders’ engagement, like information or consultation by increasing their quality through a better implementation of engagement methods (for more details see Deliverable 7.2).



Additionally, data gathered throughout interaction with stakeholders in WP5 and WP6 show that determining the engagement level could be an ambiguous and challenging task that is very subjective and can be perceived differently by involved actors. More important is that stakeholders are listened to carefully and treated seriously as partners. Not always they will have a significant influence on the process outcome, but if they do, their perceived level of engagement would be even higher than the one intended by the process owner.

3.6 Step 6: Select assessment methods and engagement tools

When undertaking stakeholder engagement, it is important to know which tools to use and when to use them. As detailed in Work Packages 3 and 4, there is a wide range of tools that can be used for stakeholder engagement and these are split into assessment methods (WP4) and engagement methods (WP3). Which tools are appropriate for a particular project depend on a number of criteria such as the goals of the engagement process, the characteristics of the project, the type of stakeholders involved, the data and resources available, and what legal requirements exist regarding public involvement in the decision making process. It is important to remember that methods and tools should be adapted to the decision-making context regarding socio-cultural and environmental factors (see also Reed 2008). For example, if one knows that affected community represents high stocks of social capital, it is more probable that a large number of stakeholders will actively participate in the engagement process. Thus, a process owner should be prepared to provide relevant tools that could engage the expected number of people. The use of different tools could also be determined by other different social indicators, like average level of education, wealth or average age.

Deliverable 5.2 introduced a decision tree for selecting engagement tools and a functional dynamic model for stakeholders' engagement. Both of them are thought of being frameworks to provide assistance for engagement process facilitators. Yet, the interaction with stakeholders (WP5) and the validation workshops (WP7) revealed that these frameworks need to be updated. The decision tree for selecting engagement tools identified four categories of tools – information provision, consultation, co-decision and empowerment. It determined the choice of an engagement tool depending on the audience size and on resources available to the process owner. Therefore the decision tree does not need big changes, the only alternation that we implemented is the resignation from closed-door meetings. Such undertakings could be interpreted as searching for an agreement only with selected stakeholders, in consequence making the process non-transparent and diminishing its trustworthiness. The rest of the logic assisting in the tools' selection process remains the same. This is depicted in the figure below (for a better resolution see Annex 1).

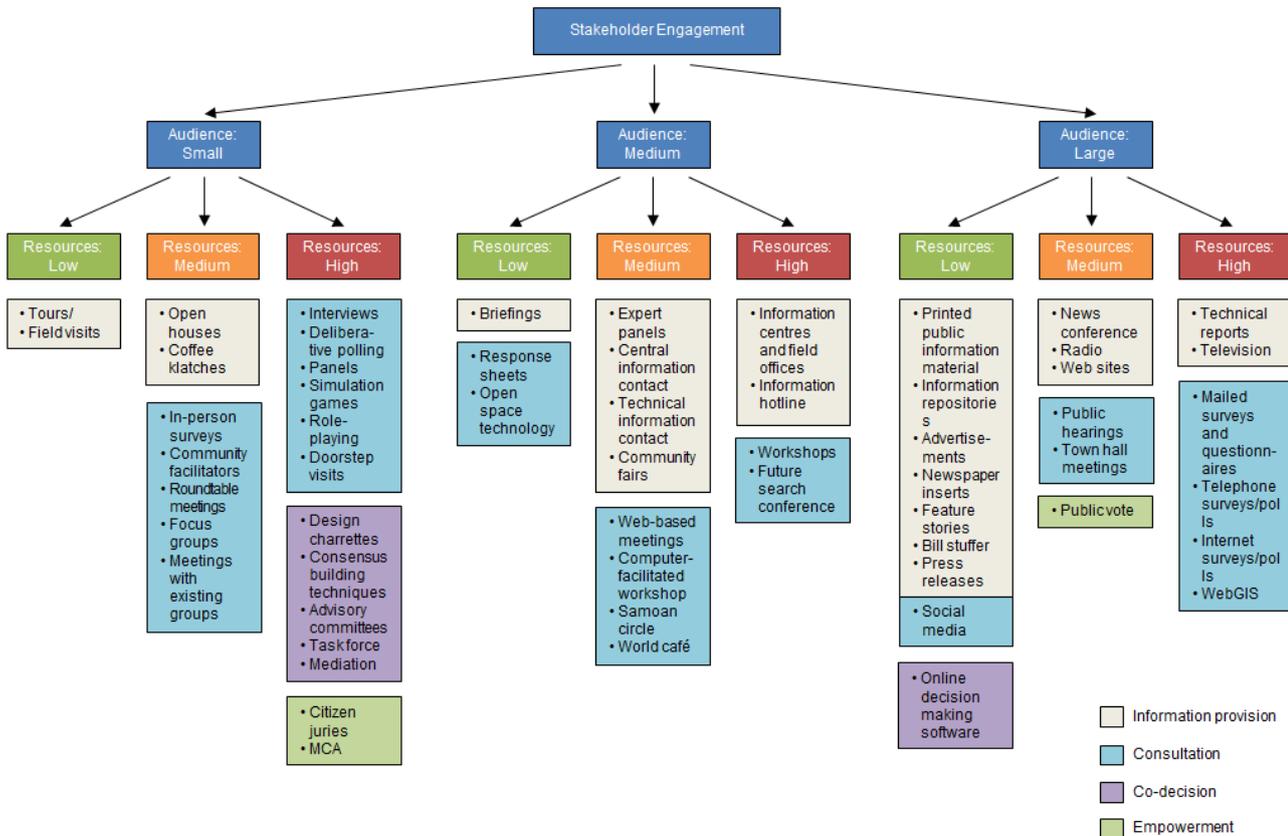


Figure 4: Updated version of decision tree for selecting engagement tools

The functional dynamic model required more substantial changes. Its previous version (see Deliverable 5.2) assigned different engagement tools on the graph, distinguishing different categories of tools (information provision, consultation, co-decision and empowerment) and placing them depending on the stage of project development (need definition, project preparation, spatial planning, permitting, construction and operation). The analysis carried out in WP5 and WP7 showed that the model should include an additional stage, namely the “energy strategy” stage (for more details see Deliverable 4.3). This stage, unlike the rest, is not project specific, but refers to broadly understood visions, directions and impacts of the overall energy policy and energy system development. We will come back to that below.

While placing different engagement tools in this graph, a few substantial changes were made in comparison to the previous functional dynamic model. Firstly, the validation workshops (WP7) showed that the Multi-criteria Analysis (MCA) should be shifted from the empowerment level to the co-decision making. WP4 recommends to consider using this tool at all possible stages, but since MCA was tested during the workshops only in regard to the spatial planning and permitting stages, only these degrees have been included in the improved version of the model. Secondly, among engagement tools at the level of information provision, social media and newspapers have been added as important means of sharing the relevant information by the process owner. Moreover, similarly like in the decision tree, closed door meetings have been deleted, because they could lead to non-transparent process.



Finally, at the “energy strategy” stage a broad societal debate is proposed as a mean to stimulate a public discussion about the energy system and its impacts in the future. It should enhance the highest possible number of actors coming from different circles (supranational institutions, parliament, media, political parties, trade unions, associations, science etc.) and it should concentrate on visions and directions of the energy policy in the future. Grid extension projects are to a large extent responses and consequences of decisions about the energy (electricity) system. On the one hand, the need to expand power lines can result from the development of decentralized energy sources (like RES) or from the development and introduction of the common European electricity market. On the other hand, the need of their expansion could be made unnecessary by the implementation of huge energy efficiency measures and the reduction of electricity consumption. Such a societal debate should be carried out independently from level of engagement (information provision, consultation, co-decision) and facilitated in media including the participation of diverse actors. It could bring more understanding about the challenges of investing in the energy infrastructure in the future and, ideally, more clarity about the direction in which a coherent energy strategy should head. As a consequence, a broad discussion on the above-mentioned elements could determine the policy formulation stage in the policy-making process and it could make decision-making processes on specific power lines projects more legitimate (see also Deliverable 7.2 and 7.3). Moreover, an open social debate involving policy-makers could be interpreted as inclusive and transparent and thereby increase stocks of trust to public institutions and government.

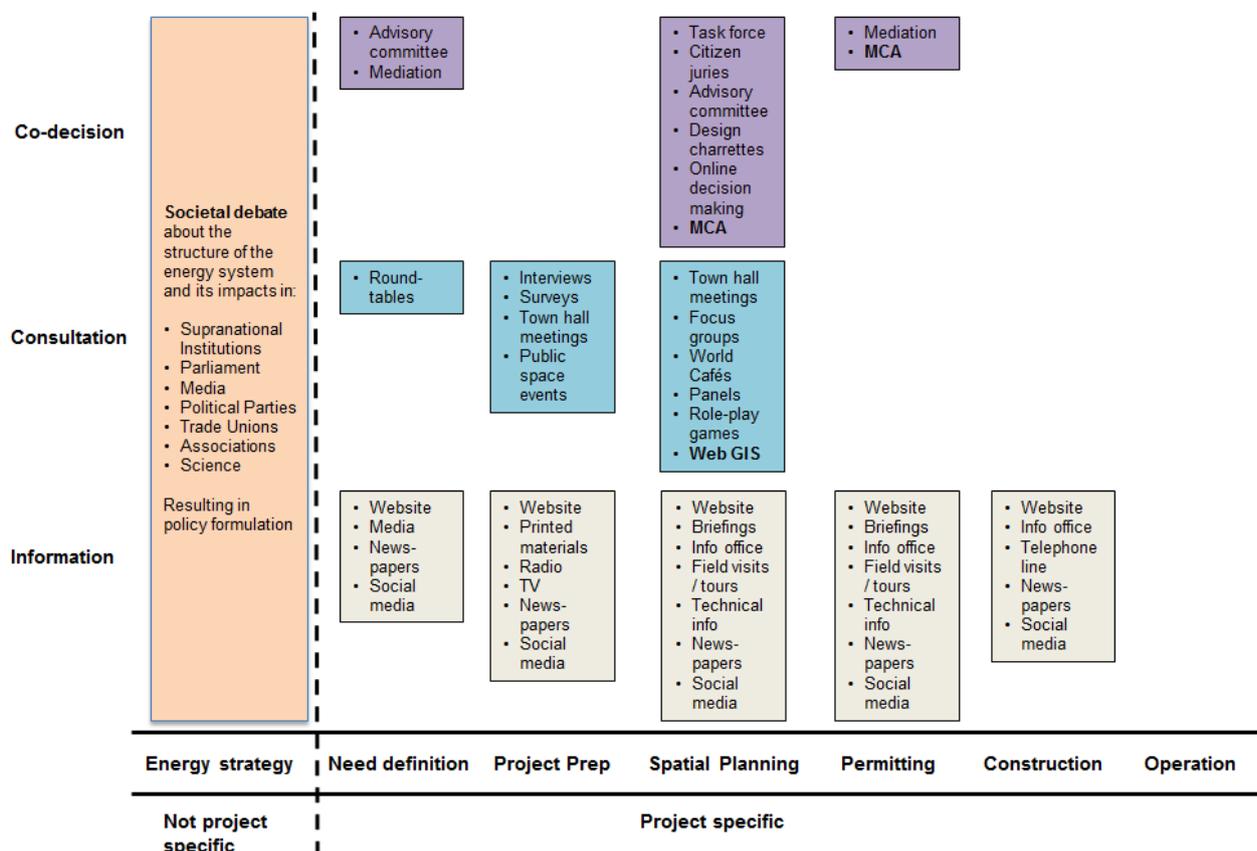


Figure 5: Functional dynamic model for stakeholder engagement, tailored to standard steps of procedures for power line planning and the results of the interaction with stakeholders and validation workshops



Validation workshops allowed for keeping the Web-based Geographic Information System (Web GIS) at the consultation level during the spatial planning stage, whereas Life Cycle Assessment (LCA) was not included since it is considered to be an assessment and not engagement tool (see also Deliverable 5.2). The updated functional dynamic model is presented above (for a better resolution see Annex 1).

3.7 Step 7: Draft engagement plan

In the preliminary handbook of guidelines it was suggested that, at a minimum, the plan should cover: the mandate for the engagement; the purpose and scope of the engagement; the owners of the engagement, their roles and responsibilities; the methodology for and results from identifying stakeholders; the methodology for and results from profiling and mapping stakeholders; the pre-engagement activities; the engagement level(s) and methods; and the boundaries of disclosure. Such an engagement plan should document the engagement process and be available to all stakeholders. At this point, we recommend to remain drafting the engagement plan in a flexible manner and open for stakeholder input. The engagement plan can encompass many years of stakeholder involvement, therefore it should consider potential revisions during the process. Stakeholders should have the opportunity to contribute to its design, for example by the implementation of locally developed solutions, which have been proven to serve the community. Moreover, such openness and flexibility would make the process more transparent and trustworthy, what could also lead to the development of new social innovations (Klijn et al. 2010), like conflict resolution mechanisms or representation strategy.

3.8 Step 8: Prepare for engagement

Stakeholder engagement is an intense, time-consuming process and resources are required for both the engagement process and to incorporate any changes to the project that might arise from the engagement process. All these aspects have been comprehensively discussed in the preliminary handbook of guidelines. Based on the data gathered during the interviews with stakeholders and several workshops, we recommend that special attention should be paid to the role of the responsible project manager for a given project. During workshops with TSOs in the INSPIRE-Grid project it was acknowledged that stakeholder engagement should have a stronger role inside the internal organisation of the companies. Some of them already started to restructure their divisions accordingly and shift the responsibility for the contact with stakeholders, for example from the public relations to the permitting department or even to the project managers directly.

There should be special trainings for project managers, including not only technical or economic skills, but also soft skills, such as (intercultural) communication, negotiation, or context comprehension. Moreover, project managers should be updated on the national energy policy, since stakeholders may also expect to be told about current developments in this area and the broader picture concerning grid extension projects. Such knowledge has a potential to



increase the project manager's credibility and competence, which have been proven to be strong indicators of trustworthiness. Additionally, it could also give a consistent overview of the national energy policy, what, as discussed above, may improve trust in public institutions (see also Lienert et al. 2015). Such a preparation requires the development of certain capacities, therefore enough resources should be provided to a project manager. By allowing enough resources we mean time, money, help from other divisions (for example communication and public relations), adequately tailored expertise (not only technical, but also socio-cultural and political) and relevant distribution of the workload of other duties during the process.

Especially project managers should be aware of the time they will need to devote to stakeholder engagement, if they want to build trustful relationships. Generating, building and maintaining trust is a complex, long-term undertaking, that can be destroyed fast and easily and negative events can have a much stronger impact than positive ones. Thus, a circulation of staff, especially of project managers, should be avoided during the process. Also, since it has been shown that the need definition stage one of the most crucial phases in grid extension projects (Komendantova et al. 2015; Sataøen et al. 2015), while preparing the engagement plan a strong emphasis should be given to the argumentation about the purpose of the project. It is not meant that information about the purpose should be dissimulated, but there should be a clear statement given about the technical, economic, political and the public interest.

3.9 Step 9: Implement the engagement plan

While describing the ninth step of the engagement process, Deliverable 5.2 suggests that it is important that stakeholders have access to all the required information and that the information is understandable to the stakeholders. This document emphasizes that the engagement process should be adequately documented and received feedback needs to be addressed. More specifically, it discusses in details what kind of information should be provided at the beginning of the process, like for example the purpose and scope of the engagement, the timeline of engagement process or how stakeholders are expected to participate. All information provided should be accurate and delivered early in the process. For certain engagement tools, particularly those that involve a number of stakeholders (such as focus groups, world cafés, etc.) it may be necessary to establish some basic rules for participation (for more details see Deliverable 5.2).

In addition to these recommendations, our findings indicate that indeed the success of engagement depends to a large extent on the quality of information and communication and how affected stakeholders are informed (see also Knudsen et al. 2015; Porsius et al. 2015). Different stakeholders involved in the process usually have different perspectives on what is important in the engagement process and grid extension projects (see also Keir et al. 2014). Therefore, there should be enough time and space dedicated to exchanges which would enable a constant (re)interpretation and detailed explanation of the discussed issues. It concerns also potential conflictual opinions between stakeholders, thus opposing stakeholder groups should



be given a possibility to exchange their views and understand the positions of their opponent. One useful tool here might be MCA.

Stakeholders expect adequate and contextual information, especially on the purpose of the project, about possible alternatives (also including the underground or undersea cables) and health risks, because of electromagnetic fields. It is recommended to deliver information proactively, for example by making phone calls to affected stakeholders when new information arrives that matters to them. If possible, answers should be provided to relevant stakeholders directly and if a certain issue comes up during a meeting, a relevant answer should be presented – if not directly – at least in the next one. Information delivered to stakeholders should be personally adjusted (i.e. the exact proximity of a given household from a power line) and if because of that some stakeholders receive more information, it should be also explained why it happened (for example there might be some pylons on their property). If possible, the information should be shared in a clear, non-ambiguous way.

If it is a very complex, scientific or technical information, it should be rephrased, backed by relevant examples or comparisons, not to create a feeling of big differences between “technical specialists” and “lay-people”. If a given area is affected by other big infrastructural projects, it may help to make relevant references to that, indicating the independence of these projects from each other, but coherence regarding the serious approach towards stakeholder engagement (in this case appropriate collaboration with respective project managers from different sectors would be helpful). Information about global impacts of the power line can be very helpful in presenting the broader view of the context in which the grid extension project is taking place, but it should have rather a complementary character to individualized (both personal and community-based) impacts.

Moreover, it is important to be clear and transparent on which aspects of a given project can be changed and which cannot. If possible, it should be underlined how the local insights contributed to the final outcome, how this input from stakeholders has been or will be used to influence project decisions and during the process, and how stakeholders could trace it. If stakeholder input has not been used, it should be explained why. Also, making the process of weighting of the factors influencing the final decision about the line alternatives transparent to stakeholders could avoid the impression of black-box-decisions and that they have been already decided upon earlier. The information coming from public stakeholders, like TSOs, local, regional and national authorities and regulatory agencies should be coherent and cohesive. It is also important that all stakeholders participating in the engagement process perceive themselves as treated in an equal and fair manner.

All these undertakings can be classified as trust-building activities and they indicate the project manager’s commitment, which is positively evaluated by stakeholders. These activities impact positively interpersonal relations between stakeholders and they create a feeling of ownership over the process and its outcomes. They build also higher stocks of social capital, which can lead to higher rates of participation (see Deliverable 5.4).



3.10 Step 10: Review the engagement process

Deliverable 5.2 stated that the quality and the effect of the engagement process should be reviewed. Results of the process should be reported to stakeholders, the wider public as well as internally with the organisation leading the process. Moreover, activities found to be non-trustworthy, insufficient or inadequate should be identified and relevant steps should be taken to improve the performance in these areas.

Our findings indicate that such improvements can be managed in a two-fold way. On the one hand, if stakeholders expect that the engagement process would function better if it is better regulated by national legislation, a respective cooperation in this manner should be performed with the legislative power. Of course, such an approach does not assume that during each single engagement process a new bill should be enacted, but such expectations on the side of stakeholders would be a clear message that current legislative frameworks are mismatching the situation on the ground. In this case a project manager could be a “bridge” connecting different levels in the decision-making process and facilitating the information flows between levels. On the other hand, the revision of the engagement process should have an open character and should be carried out during the whole process. It might happen that already one of the first steps would need to be revised before reaching one of the further steps of the engagement process. Therefore, considering different information inputs, all described steps of the engagement process should have a circular structure which would allow modifying them during the process. Moreover, since usually a TSO is conducting many projects at the same time, there should be a solid communication established between and among respective project managers, which could exchange their experiences and contribute to the mutual revision of ongoing engagement processes.



4 CONCLUSION

The goal of Deliverable 5.4 was to propose a final handbook of guidelines on the design of the communication and participation processes in order to increase public acceptance of transmission grid projects. These guidelines are structured around the work which has been presented in the preliminary handbook of guidelines (Deliverable 5.2). However, the document presented here was complemented with findings of Work Packages (WP) 2, 4, 5, 6 and 7, especially through the results of the fieldwork in Norway and France, as well as with insights from secondary literature and through constant exchanges with all INSPIRE-Grid partners.

According to the work completed in the improved theoretical framework (Deliverable 5.4), the five overarching principles, that are intended to provide general guidance as to how the engagement process should be structured (consistency, transparency, timeliness, proportionality and inclusiveness), have been recognized as elements that makes the process trustworthy. In addition to that, the ten steps proposed in the preliminary handbook of guidelines, which were intended to help organizing the engagement process⁶, have been substantiated with recommendations derived from data gained throughout the interaction with stakeholders in the INSPIRE-Grid case studies and through exchanges with project partners.

Findings generated during the research process in INSPIRE-Grid WPs confirmed that the approach presented in Deliverable 5.2 is appropriate. Therefore D5.3 is not a fundamental reconstitution, but rather a complement. The findings contributed to the review of the abovementioned ten steps for the organization of the engagement process from the perspective of informal aspects of the engagement and decision-making process. Our data showed the central role of a respective project manager, what leads to the conclusion that such a role is certainly not an easy task. A project manager is a key person that is able to build trustful relationships with and among affected stakeholders. In order to achieve that, specific examples of trust-building activities have been described.

It should not be forgotten that a TSO as a company is a stakeholder as well and its foremost interest and duty is to keep the electricity system stable and to ensure a secure electricity supply. However, as long as the stakeholder engagement is not understood and integrated as an elementary component of the firm's policy, a single project manager will not be able to change the whole process only by herself/himself. The overall company's structure should guarantee that project managers have a direct contact to affected stakeholders. Exchanges between project managers should be facilitated and – as they mostly have a technical background – participation in internal trainings on communication by public relations divisions or in external seminars or workshops should be encouraged. This is also relevant for other (mostly technical) employees, who create an outside image of the company too.

⁶ 1) identify stakeholders, 2) map stakeholders, 3) define key issues, 4) understand stakeholder values, 5) determine the engagement level, 6) select assessment methods and engagement tools, 7) draft engagement plan, 8) prepare for engagement, 9) implement the engagement plan and 10) review the engagement process



Nevertheless, communication is only one side; taking stakeholder engagement seriously means granting a certain amount of co-decision power to stakeholders during the project phases, what means that also TSOs need to make compromises. Employing stakeholder engagement from a strongly hierarchical, top-down approach using superficial strategy is a deceptive façade that stakeholders will certainly notice and consequently lose trust in the process, its owners and in the final outcome. Consequently, to have the necessary operational and financial freedom, also the regulatory authorities and policy makers need to acknowledge the increased importance of stakeholder engagement. It must be clearly communicated that decisions on the overall power system and energy strategy cannot be discussed only in a project framework. It is duty of policy makers to develop and discuss with society a coherent and widely accepted energy strategy that will then influence the need of new power lines.

The proposed measures in this deliverable will not provide a general acceptability of grid extension projects and satisfaction from the engagement process in all possible cases among all possible stakeholders. There can always be actors who can complain or be critical on certain issues. However, trust-building activities can definitely reduce perceived power imbalances between involved stakeholders and a TSO, decrease conflicts potential, facilitate the dialog between opposing visions of the energy system and contribute to constructive solutions and social innovations.



5 REFERENCES

- Bell, Simon, Stephen Morse and Rupesh A. Shah. 2012. Understanding stakeholder participation in research as part of sustainable development. *Journal of Environmental Management* 101: 13-22. doi: 10.1016/j.jenvman.2012.02.004
- Cain, Nicolas L. and Hal T. Nelson. 2013. What drives opposition to high-voltage transmission lines?. *Land Use Policy* 33: 204-213. doi:10.1016/j.landusepol.2013.01.003
- Chevalier, Jacques M. and Daniel J. Buckles. 2008. *SAS2: a Guide to Collaborative Inquiry and Social Engagement*. Sage Publications.
- Ciupuliga, Ana Roxana and Eefje Cuppen. 2013. The role of dialogue in fostering acceptance of transmission lines: the case of a France–Spain interconnection project. *Energy Policy* 60: 224-233. doi:10.1016/j.enpol.2013.05.028
- Cohen, Jed J., Johannes Reichl and Michael Schmidthaler. 2014. Re-focussing research efforts on the public acceptance of energy infrastructure: A critical review. *Energy* 76: 4-9. doi:10.1016/j.energy.2013.12.056
- Cox, Michael, Gwen Arnold and Sergio Villamayor Tomás. 2010. A Review of Design Principles for Community-based Natural Resource Management. *Ecology and Society* 15(4): 38. Available online at: <http://www.ecologyandsociety.org/vol15/iss4/art38/> (22. 01. 2016)
- Cuppen, Eefje. 2012a. A quasi-experimental evaluation of learning in a stakeholder dialogue on bio-energy. *Research Policy* 41(3): 624-637. <http://dx.doi.org/10.1016/j.respol.2011.12.006>
- Cuppen, Eefje. 2012b. Diversity and constructive conflict in stakeholder dialogue: considerations for design and methods. *Policy Sciences* 45(1): 23-46. doi: 10.1007/s11077-011-9141-7
- Devine-Wright, Patrick and Susana Batel. 2013. Explaining public preferences for high voltage pylon designs: An empirical study of perceived fit in a rural landscape. *Land Use Policy* 31: 640-649. doi:10.1016/j.landusepol.2012.09.011
- Harkes, Ingvild H. T. 2006. *Fisheries co-management, the role of local institutions and decentralisation in Southeast Asia: with specific reference to marine sasi in Central Maluku, Indonesia*. Dissertation. Leiden University, Leiden, The Netherlands.
- Haß, Rabea, Hanna Hielscher and Dannis Klink. 2014. Germany—A Movement Society? An Investigation of Non-activism. *Journal of Civil Society* 10(4): 353-372. doi: <http://dx.doi.org/10.1080/17448689.2014.984971>
- Höppner, Corina. 2009. Trust—A monolithic panacea in land use planning?. *Land Use Policy* 26(4): 1046-1054. doi: <http://dx.doi.org/10.1016/j.landusepol.2008.12.007>
- Keir, Laura, Richard Watts and Shoshanah Inwood. 2014. Environmental justice and citizen perceptions of a proposed electric transmission line. *Community Development* 45(2): 107-120. doi: 10.1080/15575330.2014.887130



- Klijn, Erik-Hans, Jurian Edelenbos and Bram Steijn. 2010. Trust in Governance Networks: Its Impacts on Outcomes. *Administration and Society* 42(2): 193-221. doi: 10.1177/0095399710362716
- Knudsen, Jørgen K., Line Camilla Wold, Øystein Aas, Jens Jacob Kielland Haug, Susana Batel, Patrick Devine-Wright, Marte Qvenild, and Gerd B. Jacobsen. 2015. Local perceptions of opportunities for engagement and procedural justice in electricity transmission grid projects in Norway and the UK. *Land Use Policy* 48: 299-308. doi:10.1016/j.landusepol.2015.04.031
- Komendantova, Nadejda, Marco Vocciante and Antonella Battaglini. 2015. Can the BestGrid Process Improve Stakeholder Involvement in Electricity Transmission Projects?. *Energies* 8(9): 9407-9433. doi:10.3390/en8099407
- Lienert, Pascal, Bernadette Suetterlin and Michael Siegrist. 2015. Public acceptance of the expansion and modification of high-voltage power lines in the context of the energy transition. *Energy Policy* 87: 573-583. doi: 10.1016/j.enpol.2015.09.023
- Lowndes, Vivien, Lawrence Pratchett and Gerry Stoker. 2006. Diagnosing and Remediating the Failings of Official Participation Schemes: The CLEAR Framework. *Social Policy and Society* 5(2): 281-291. doi: <http://dx.doi.org/10.1017/S1474746405002988>
- Luyet, Vincent, Rodolphe Schlaepfer, Marc Brendan Parlange and Alexandre Buttler. 2012. A framework to implement stakeholder participation in environmental projects. *Journal of Environmental Management*, 111, 213-219. doi: <http://dx.doi.org/10.1016/j.jenvman.2012.06.026>
- March, James G. and Johan P. Olsen. 1989. *Rediscovering Institutions: The Organizational Basis of Politics*, New York: Free Press.
- Navrud, Ståle, Richard Ready, Kristin Magnusen and Olvar Bergland. 2008. Valuing the social benefits of avoiding landscape degradation from overhead power transmission lines: Do underground cables pass the benefit-cost test?. *Landscape Research* 33(3): 281-296. doi: 10.1080/01426390802045921
- Ostrom, Elinor. 2010. Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *American Economic Review* 100(3): 641-672. doi: 10.1257/aer.100.3.641
- Porsius, Jarry T., Liesbeth Claassen, Patricia E. Weijland and Danielle R.M. Timmermans. 2015. “They give you lots of information, but ignore what it’s really about”: residents’ experiences with the planned introduction of a new high-voltage power line. *Journal of Environmental Planning and Management*: 1-18. doi: 10.1080/09640568.2015.1080672
- Puka, Lidia and Kacper Szulecki. 2014. The politics and economics of cross-border electricity infrastructure: A framework for analysis. *Energy Research & Social Science* 4: 124-134. <http://dx.doi.org/10.1016/j.erss.2014.10.003>
- Raven, Rob P.J.M., Ruth Mourik, Ynke C.F.J. Feenstra and Eva Heiskanen. 2009. Modulating societal acceptance in new energy projects: Towards a toolkit methodology for project managers. *Energy* 34(5): 564-574. doi: <http://dx.doi.org/10.1016/j.energy.2008.08.012>



- Reed, Mark S. 2008. Stakeholder participation for environmental management: A literature review. *Biological Conservation* 141(10): 2417-2431. doi: 10.1016/j.biocon.2008.07.014
- Reed, Mark S., Anil Graves, Norman Dandy, Helena Posthumus, Klaus Hubacek, Joe Morris, Christina Prell, Claire H. Quinn and Lindsay C. Stringer. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90(5): 1933–1949. doi: <http://dx.doi.org/10.1016/j.jenvman.2009.01.001>
- Rottmann, Katja. 2013. *Recommendations on Transparency and Public Participation in the Context of Electricity Transmission Lines*. Position Paper. Germanwatch e.V. Available at: <http://germanwatch.org/en/7761> (30. 03. 2016).
- Sataøen, Hogne Leroy, Ole Andreas Brekke, Susana Batel and Martin Albrecht. 2015. Towards a sustainable grid development regime? A comparison of British, Norwegian, and Swedish grid development. *Energy Research & Social Science* 9: 178-187. doi:10.1016/j.erss.2015.08.011
- Schmidt, Peter and Johan Lilliestam. 2015. Reducing or fostering public opposition? A critical reflection on the neutrality of pan-European cost–benefit analysis in electricity transmission planning. *Energy Research & Social Science* 10: 114-122. doi:10.1016/j.erss.2015.07.003
- Schneider, Theresa. 2015. *BESTGRID. Renewables-Grid and Public Acceptance*. Presentation given during the second General Assembly of the INSPIRE-Grid project on November 26th, 2015 in Zürich. Available at: http://www.inspire-grid.eu/wp-content/uploads/2015/12/07_BESTGRID_project_lessons_learned.pdf (13. 03. 2016).
- Sharp, Emily A., Rik Thwaites, Allan Curtis and Joanne Millar. 2013. Trust and trustworthiness: conceptual distinctions and their implications for natural resources management. *Journal of Environmental Planning and Management* 56(8): 1246-1265. doi: <http://dx.doi.org/10.1080/09640568.2012.717052>
- Thomas, Heiko, Adela Marian, Alexander Chervyakov, Stefan Stückard, Delia Salmieri and Carlo Rubbia. 2016. Superconducting transmission lines – Sustainable electric energy transfer with higher public acceptance? *Renewable and Sustainable Energy Reviews* 55: 59-72. doi:10.1016/j.rser.2015.10.041
- Voinov, Alexey and Francois Bousquet. 2010. Modelling with stakeholders. *Environmental Modelling & Software* 25(11): 1268–1281. doi: <http://dx.doi.org/10.1016/j.envsoft.2010.03.007>
- Whitton, John, Ioan Mihangel Parry, Mito Akiyoshi and William Lawless. 2015. Conceptualizing a social sustainability framework for energy infrastructure decisions. *Energy Research & Social Science* 8: 127-138. doi: 10.1016/j.erss.2015.05.010



ANNEX 1 – IMPROVED STAKEHOLDER ENGAGEMENT MODELS

