



TRANSITIONS PATHWAYS AND RISK ANALYSIS FOR CLIMATE CHANGE MITIGATION AND ADAPTATION STRATEGIES

D2.4: Stakeholder engagement plan

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Preface

Both the models concerning the future climate evolution and its impacts, as well as the models assessing the costs and benefits associated with different mitigation pathways face a high degree of uncertainty. Therefore, there is an urgent need to not only understand the *costs and benefits* associated with *climate change* but also the *risks, uncertainties and co-effects* related to different *mitigation pathways* as well as *public acceptance* (or lack of) of low-carbon (technology) options. The main goals and objectives of TRANSrisk therefore are to create a novel assessment framework for analysing costs and benefits of transition pathways that will integrate well-established approaches to modelling the costs of resilient, low-carbon pathways with a wider interdisciplinary approach including risk assessments. The assessment framework intends to reflect on uncertainty at the heart of the policy design rather than assessed through sensitivity analysis at the end of the analysis. In addition, *TRANSrisk* aims to design a decision support tool that should help policy makers to better understand uncertainties and risks and enable them to include risk assessments into more robust policy design.

PROJECT PARTNERS

No	Participant name	Short Name	Country code	Partners' logos
1	Science Technology Policy Research, University of Sussex	SPRU	UK	
2	Basque Centre for Climate Change	BC3	ES	
3	Cambridge Econometrics	CE	UK	
4	Energy Research Centre of the Netherlands	ECN	NL	
5	Swiss Federal Institute of Technology (funded by Swiss Gov't)	ETH Zurich	CH	
6	Institute for Structural Research	IBS	PL	
7	Joint Implementation Network	JIN	NL	
8	National Technical University of Athens	NTUA	GR	
9	Stockholm Environment Institute	SEI	SE, KE	
10	University of Graz	UniGraz	AT	
11	University of Piraeus Research Centre	UPRC	GR	
12	Pontifical Catholic University of Chile	CLAPESUC	CL	

1 *EC SUMMARY REQUIREMENTS*

1.1 Changes with respect to the DoA

The stakeholder engagement process described in this deliverable is in line with Task 2.4 of the grant agreement for TRANSrisk. Added to this are:

- An explanation of how the stakeholder mapping task in WP2 (deliverable D2.3) can be linked to the stakeholder mapping task in WP6 (deliverable D6.1).
- A tool to help categorise stakeholders with respect to their interest and power (using tool description for D2.1).
- A further specification of stakeholder roles during the four stages of the TRANSrisk case study analysis (referring to WP3)

1.2 Dissemination and uptake

The stakeholder engagement plan will be disseminated within the project consortium, as a guidance document for recruiting stakeholders and engaging with them throughout the project steps.

1.3 Short summary of results

The stakeholder engagement plan assists TRANSrisk case study partners in identifying and recruiting stakeholders in support of the case study analysis. The plan contains guidance on how to ensure a balanced selection of stakeholder so that all relevant stakeholder groups will be represented. An important part of the plan is guidance on how to interact with stakeholders in the consecutive steps of the case studies. Here the first step will be about interacting with ‘generalists’ and ‘frontrunners’ in the case study countries, while the second step will require a wider group of stakeholders, with more detailed analytical focus. The plan elaborates on techniques to be applied. An important consideration is that all the work is focused on facilitating interactions between people and stimulating mobilisation of their tacit knowledge. Workshops are preferred for this purpose, however the plan acknowledges that time limitations (and possibly other logistical barriers) may limit the use of workshops. In such cases, the plan suggests alternative techniques.

1.4 Evidence of accomplishment

Consultation on this plan has taken place with all partners in the TRANSrisk consortium since September 2015 and further specification of stakeholder roles in individual tasks has been included as a result. As a first step in the stakeholder engagement process, partners have compiled a draft list of the generalist stakeholders and some case studies have begun to contact the generalist stakeholders for interviews. The lists will be included as a part of D2.3 ‘Stakeholder Mapping’.

Executive summary

Stakeholder engagement forms a core part of the TRANSrisk project. Part of this work will see TRANSrisk consult with practitioners in different areas of climate decisions and request their input into the project steps. Further to this, TRANSrisk will disseminate its findings to multiple stakeholder groups for improved decision making on climate change mitigation options and policies. Stakeholders bring ‘practitioners’ knowledge’ to the project, which can help to value the possible economic, social and environmental costs and benefits of climate change mitigation options within a country or sector context. Stakeholders are also important for the implementation of prioritised mitigation options within a country context.

The stakeholder engagement plan aims to identify stakeholders from multiple professional groups, such as public sector stakeholders from national, sub-national, EU-level and international (e.g. UN-level) organisations, and private stakeholders from within the EU and beyond the EU (e.g. technology users and suppliers, start-ups, energy-intensive companies, industry associations, etc.). All TRANSrisk partners will contribute to stakeholder identification for the project with help of a spreadsheet for collecting stakeholder information, affiliation and potential interests and role in TRANSrisk Work Packages (the spreadsheets together form Deliverable D2.3).

TRANSrisk partners will first prepare an overview of stakeholders from within their own networks who would be potentially interested in TRANSrisk results and who could potentially take part in the TRANSrisk case study analysis. The overview can be extended later on in the project, when it becomes clear (through earlier case studies or other analytical steps) what specific knowledge is needed and what stakeholders should be contacted to gather it.

In this plan it is also foreseen that the stakeholder mapping in D2.3 will be aligned with mapping of stakeholder interests and innovation capabilities in D6.1. This can be done by extended the spreadsheet developed for D2.3 with a number of extra columns for characterising stakeholders in terms of their interests, resources and functions in the Technology Innovation System.

In order to stimulate active stakeholder engagement in TRANSrisk, this plan elaborates on how to clearly define objectives and benefits for stakeholders to be involved in the project, such as the possibility for stakeholders to obtain information that they would otherwise not have acquired. In the plan, it is also acknowledged that stakeholders are likely to have limited time availability so that their involvement will need to be effectively and efficiently managed, for example through a focused timeline, keeping control of the process and guarding resources.

This stakeholder engagement plan specifies in detail how, where and when stakeholders will be engaged in the project, task by task. Where meetings are foreseen, these are generally called workshops, but it is acknowledged that workshops with 30-35 participants may not always be feasible in the project. Instead, other forms of stakeholder gatherings can be considered, possibly in combination with interviews with individuals or smaller groups of stakeholders.

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2 INTRODUCTION

Stakeholder engagement forms a key aspect of the TRANSrisk project. Part of this work will see TRANSrisk consult with practitioners in different areas of climate decisions and request their input into the project steps. Further to this, TRANSrisk will disseminate its findings to multiple stakeholder groups for improved decision making on climate change mitigation options and policies.

There are three reasons why stakeholder engagement is key in TRANSrisk. First, the project aims to be of practical value and stakeholders bring ‘practitioners’ knowledge’ to the project. Such knowledge can help to value the possible economic, social and environmental costs and benefits of climate change mitigation options within a country context, and ask (and answer) questions important to their context. This will be complementary to other, qualitative and quantitative, tools used by TRANSrisk. For example, while a model can assess benefits and costs of a mitigation option using the best available knowledge from academic sources, interactions with stakeholders can assess an option within the decision context of the country or region concerned.

Second, stakeholder engagement is important for the implementation of prioritised mitigation options within a country context. One of TRANSrisk’s aims is to explore how a country’s economic, social, technical, and political developments impact on the formulation and implementation of a low emissions trajectory for greenhouse gases. Stakeholders help us to obtain a good understanding of such developments (e.g. societal controversies such as resistance to wind energy or carbon capture and storage).

Finally, in order to ensure that the main conclusions from TRANSrisk are focussed on a key groups of decision makers in the right forms, it is important that TRANSrisk identifies what are stakeholders’ interests in climate change issues and their influence on climate change decision making processes. For that the Power and Interest Matrix tool will be used, which has been described in Deliverable D2.1. In addition, the plan foresees the role of stakeholders as receivers of knowledge and results from TRANSrisk. This aspect of stakeholder engagement will be dealt with in further detail in TRANSrisk’s WP8 on dissemination of project results.

This plan specifies how the TRANSrisk partners envisage stakeholders becoming involved in the multiple tasks of TRANSrisk (task - action - type of stakeholder - stakeholder engagement process). It also presents an overview of meetings, with the foreseen participation of stakeholders.

Finally, implementation of this plan will be aligned with the procedures for contacting and interacting with stakeholders, as outlined in the Deliverable 1.2 on Ethics Requirements, and for managing the data, opinions and other insights obtained through stakeholder interactions, as outlined in Deliverable 1.1 on the Data Management Plan.

3 TARGETING, SCREENING AND IDENTIFYING STAKEHOLDERS

3.1 The range of stakeholders

Stakeholder engagement in the TRANSrisk project can be diverse, as identification, prioritisation and implementation of climate change mitigation options requires involvement of a wide range of practitioners: from researchers to funders, from ministerial policy makers to manufacturers, and from consumers to environmental NGOs. Whether and how different stakeholders will be involved in TRANSrisk will depend on the Work Package and task concerned (section 4 specifies stakeholder roles).

As a start, TRANSrisk partners will identify stakeholders from their national, international and professional networks early in the project, which will form a broad basis for stakeholder mapping. As an indication of the breadth of the stakeholder identification, TRANSrisk refers to the following non-exhaustive starting set of potential stakeholders and work packages to which they could possibly contribute (Table 1):

Table 1. Potential stakeholder groups for involvement in TRANSrisk analysis

Public sector stakeholders	WP ¹
<i>National:</i>	
- Member State ministries responsible for climate change mitigation policies	3,5,6,7,8
- Member State ministries responsible for research and innovation policies	3,5,6,7,8
- Public (or semi-governmental) organisations supporting/funding Research and Innovation	6,8
<i>Sub-national:</i>	
- Sub-national government organisations such as municipalities and cities and operating at level of provinces	3,5,6,8
<i>EU-level:</i>	
- Relevant European Commission Directorates-General (in particular Research and Innovation, Climate Action, and Energy)	4,8
<i>International organisations relevant to climate change mitigation:</i>	
- UNFCCC (Climate change)	4,8
- UNEP (climate and environmental policy interaction; technology transfer)	4,8
- UNDP (climate and development interaction)	4,8
- UNIDO (implementation of mitigation options)	4,8
- IRENA (technology options for mitigation)	4,8
- IPCC (science knowledge base for mitigation options)	4,8

¹ Initial allocation of roles in WPs, which will be refined once all WPs have completed their planning.

- Technology Mechanism (esp. CTCTN: knowledge and networking platform)	4,8
- Green Climate Fund (Finance for mitigation options)	4,8
- World Bank (capacity support for climate change mitigation), incl. International Finance Corporation (IFC) (climate finance support)	4,8
Private sector stakeholders (both operational within Member States and internationally):	
- Technology users and/or suppliers (e.g., manufacturers of household appliances, cars, energy technology, retailers)	3,5,6,7,8
- Start-ups and innovative companies	3,5,6,8
- High-GHG emitting, energy-intensive industry	3,5,6,7,8
- Industry associations and trade organisations (e.g., operating at sector levels)	3,5,6,7,8
- Financial institutes (e.g., commercial banks, venture capital providers)	3,5,6,7,8
Others:	
- NGOs focusing on environmental and climate change issues	3,5,6,7,8
- Research organisations and universities (contributing to and studying R&D, deployment and diffusion of climate change mitigation options)	3,5,6,7,8
- Coordinators / managers of EU-funded projects (in particular FP7 and H2020) with relevance for TRANSrisk	3,5,6,8
- Labelling/standard organisations (e.g. for labelling an option as low-emission and for determining GHG emission reduction potential of options)	3,5,6,8
- Trade unions, consumer groups, etc.	3,5,6,8
- Consultants specialised in identifying, assessing and implementing mitigation options	3,5,6,7,8

It is recommended that at an early stage in TRANSrisk significant efforts be made in the recruitment and engagement of an appropriate set of stakeholders. A communication and involvement strategy by the TRANSrisk team is required with a structured approach that:

- (a) identifies relevant stakeholders per WP and task at an early stage (within the first 6 months of the project start date; meeting milestone 1);
- (b) communicates objectives of the TRANSrisk project, and what TRANSrisk can do for the stakeholders;
- (c) establishes a process for ongoing engagement; and
- (d) continues to engage with all stakeholders throughout the assessment and implementation process.

Successful stakeholder engagement can result in a number of important benefits. It can lead to transfer of new knowledge, especially local knowledge, and insights on specific technology and practice challenges and opportunities that might otherwise have been missed by desk research. Moreover, it will likely be easier to implement TRANSrisk recommendations, as stakeholders, especially facility- or sector-specific ones, will, during the project's case studies, have already been exposed to proposed actions and achieve some level of 'buy-in'.

At the same time, TRANSrisk partners acknowledge that stakeholders are usually busy people and need an incentive to engage with the project. While monetary compensations are not

possible within the project, there are a number of reasons why stakeholders may be interested in participating in project tasks:

1. *Personal/institutional interests and “co-ownership” of the process*: stakeholders may find the project, its team and the objectives interesting to be part of. For instance, the fact that TRANSrisk is an EU-funded project (directly feeding into the knowledge base of EU policy makers and with feedback loops with Member State decision makers) can stimulate them to support the project as it enables them to have their ‘voices heard’ (e.g. in contributing to developing transition pathways) by policy makers.
2. *Acquisition of additional information*: TRANSrisk, with its policy makers’ contacts and intense exchange of climate relevant information, can be interesting for stakeholders to be part of, as it may provide them with insights that they would otherwise not have heard of. This is also why TRANSrisk does not only consider stakeholder workshops as working sessions to collect information from stakeholders, but also as dissemination sessions during which stakeholders can learn from other stakeholders.
3. *Networking*: next to several online networking opportunities, TRANSrisk offers an attractive off-line networking opportunity for stakeholders to meet face-to-face with other stakeholders and establish collaborations with them.
4. *Goodwill*: TRANSrisk partners have from earlier projects established close working relations with multiple stakeholders. Based on this goodwill, stakeholders are usually willing to collaborate on a project, as they know the partners.

3.2 Process for active stakeholder engagement

For an active, inclusive stakeholder dialogue that is sustained over the course of TRANSrisk, the following steps are suggested (to be undertaken under WP2, in consultation with leaders of each WP and WP task):

1. **Identification of stakeholders**. In TRANSrisk, a stakeholder can both represent an institution's interest and be a person acting in his/her personal capacity. The main objective of the stakeholder engagement is to mobilise tacit knowledge that is complementary to what is available in written products and that is more targeted at their needs. In light of that, stakeholders speaking in a personal capacity may be able to engage at a more detailed level than stakeholders representing their institution. Experience with other EU projects shows that such a more detailed engagement can be supported when stakeholders can speak under ‘Chatham House rules’. In that way, information provided by stakeholders can be used in the analysis, but not linked, by outsiders to the identity of stakeholders.

In the initial phase we suggest a two-stage approach for creating the list of stakeholders for TRANSrisk:

- Create a list of *generalists*: all partners identify in their country and/or (national or international) professional networks those people that have a wide generalist view on choosing climate change mitigation options corresponding design policies. These generalist (e.g. senior climate negotiators, professors, senior business managers, etc.) should be able to critically look at our research questions and provide general advice on what to focus on and what other interesting research questions could be. This stakeholder group can be regularly informed about TRANSrisk and results (e.g. once a year), based on which they can advise us, we can include their insights in the next steps of the research. This list of stakeholders has been prepared by all partners in a Microsoft Excel spreadsheet (see section 3.3), as per Milestone MS1 (Month 6, February 2016). In WP3, the generalists will be invited to participate in the first step of the case study analysis to help with refining research questions for the country and/or sector that is the subject of the case study and support the description of the past and present situation in the country/sector, as well as their views on future development in the country/sector from a low-emissions pathway perspective.
- *Create a list of case study specific stakeholders*: all partners will need to identify stakeholders from different professional areas that will participate in the case study analysis or specific tasks. For a more detailed description see: *Stakeholder engagement during case study analysis (WP3)*.

While all identified stakeholders are important for the work in TRANSrisk, both for knowledge gathering and result validation, it needs to be acknowledged that stakeholders can differ considerably with respect to their influence in decision-making processes and degree of interest in avoiding climate change. For example, a Ministry of Finance stakeholder may have strong policy making power, but have a low interest in climate change issues. A consumer association may strongly support climate policy actions, but have little influence on the policy making process, etc. In order to help partners in making such a categorisation of stakeholders, the **Power & Interest Matrix** tool has been included in deliverable D2.1 (Stakeholder engagement toolbox). Identifying stakeholder interests and decision/policy-making influence is among the key aspects to be considered for the stakeholder mapping in tasks 2.3 and 6.1 (as explained below in *Links with Task 2.3 and Task 6.1*).

2. **Define the objectives and benefits** of the process for the stakeholders for each specific task (see *Stakeholder engagement specification per task in TRANSrisk*). This involves setting up a transparent process in which the purpose of TRANSrisk is discussed along with the expectations and privileges of stakeholder involvement. Once agreed, this will lead to a clear sense of the goals and objectives of TRANSrisk. When contacting stakeholders, they will be informed about the TRANSrisk procedures for stakeholder interactions as laid out in the Ethics Requirements Deliverable 2.1. Stakeholders will also be sent a template (consent form) through which they can state their agreement with the

procedures to be followed, including management of the information that they will provide to the project (using the Data Management Deliverable D1.1).

3. **Clarify stakeholder roles in the tasks.** It is important to be flexible and identify activities that will require direct and detailed input from stakeholders, and ensure that relative strengths and expertise are utilised as effectively as possible in the Work Packages and Work Package tasks. Potential roles are: checking list of mitigation options considered by TRANSrisk partners, advising on priority areas for research and innovation for mitigation options, testing databases developed by TRANSrisk, identifying knowledge needs, sharing insights on policy context factors for mitigation option implementation, and providing feedback on TRANSrisk results.
4. Establish an **ongoing process for stakeholder engagement**, to be supervised by JIN, in collaboration with partners (for the success of the case study analyses). JIN, with the support from SPRU and NTAU, will use project management tools (e.g. Gantt charts and mind maps) to track and monitor the stakeholder engagement process across all partner institutions. The progress in all partner institutions will be documented in Alfresco (the internal website). In order to establish an effective process for engaging stakeholders, the following actions are recommended:
 - *Keep to a focused timeline.* It is possible that the relatively long timeframe of TRANSrisk may hamper the continued engagement of some stakeholders, notably some private sector participants. Specifying timelines per task can help stakeholders to understand how long their involvement is requested.
 - *Keep control of the process.* It is also possible that some stakeholders will attempt to drive the engagement process to promote their own exclusive set of interests. This can be avoided by ensuring that decision processes, such as assessing mitigation options and identifying contextual factors, are transparent, and balanced representation is sought early in the stakeholder selection process.
 - *Guard resources.* TRANSrisk should avoid absorbing a large amount of skilled staff time as this is usually in short supply.
5. **Evaluations** throughout the processes whether the level of participation (e.g. consultation) is appropriate to the context and type of participants and if the methods and techniques are appropriate and work as expected. This helps to identify and suggest corrective actions.

3.3 Stakeholder recruitment spreadsheet

A spreadsheet table has been prepared to help partners identify stakeholders within their own Member States, as well as within their own professional circles, for the different tasks of TRANSrisk. We also recommend identifying and recruiting stakeholders from outside partners' Member States, including from the European Commission and Brussels-based stakeholder representatives, and international organisations from outside the EU.

The table below shows the template for the spreadsheet.

Table 2: Stakeholder recruitment spreadsheet (template)

Name	Organisation	Contact details	Type (government, business, other)	Economic sector	Potential contribution to TRANSrisk (WP, task)	Potential benefits from joining TRANSrisk	Input for TRANSrisk models
			<ul style="list-style-type: none"> • Government (national/ subnational) • Research • Consultancy • Business • Other 	Working in sector or work relevant for sector e.g. Ministry of Economic Affairs - > Energy: <ul style="list-style-type: none"> • Energy • Industry • Transport • Environment • Agriculture • Forestry • Regional development • Other 			

Using this table, each partner has identified between 10 and 20 stakeholders from their countries and professional networks, with the aim of having a broad representation of the stakeholder groups mentioned in section 2.1. This has created a solid database for use throughout TRANSrisk, especially for the first stage of the case study analysis in WP3, when generalists will be consulted. It is acknowledged that this list may have limitations as it is based on people and institutions that TRANSrisk partners know from their professional experience. More detailed case study analysis may also require consultation of people that partners do not know directly, but are being recommended by generalists. During the work on case studies, the initial stakeholder database will be extended (see also *Stakeholder engagement during case study analysis (WP3)*)

In summary:

- An initial list of generalist stakeholders was prepared by February 2016, Month 6, Milestone 2.1.
- During consecutive case study steps, the list will be reviewed (e.g. people changing jobs, changes of address, more stakeholders to be consulted, etc.) and be kept up to date.

In order to coordinate this process, JIN, as WP2 leader, will notify WP and task leaders, upon the start of a task that the stakeholder list will need to be reviewed. For that, JIN will observe the TRANSrisk Gantt chart with task starting dates, so that task leaders and partners can be notified in time when to review the stakeholder list.

3.4 Links with Task 2.3 and Task 6.1

Table 1 serves an important project purpose: to establish a database with generalist and case study-specific stakeholders from the professional networks of the TRANSrisk partners and from the case study contexts. The table also forms a solid basis for the work under tasks 2.3 (stakeholder mapping, deliverable D2.3) and 6.1 (mapping stakeholder interests and innovation capabilities). Both tasks aim to characterise stakeholders for the TRANSrisk case study analysis by adding to the information in Table 1 information about stakeholders' incentives, interests, drivers and views on low emission transition processes, and related economic, social and environmental aspects.

In Task 2.3, this information will be mainly collected by partners, based on their professional judgement and experience of collaborating with the stakeholders. This extended mapping and characterisation of stakeholders can then be used in several tasks in TRANSrisk. These will include case study stages, dissemination of case study results to policy and decision makers, consultation of international organisation practitioners (in WP4), the assessment of risks and uncertainties (in WP5), the development and testing of decision tools for low-emission pathways (in WP7), and the dissemination of results (in WP8).

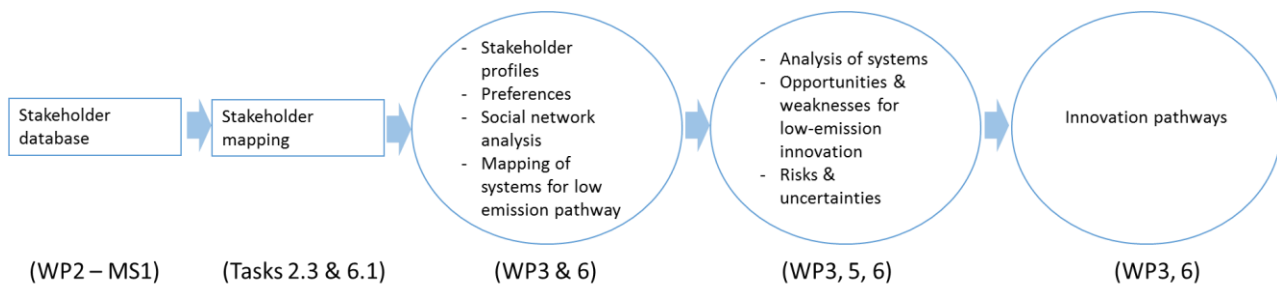
The extended version of Table 1 in Task 6.1 is mainly aimed at collecting information about stakeholders as actors in the systems for low-emission innovation processes. Understanding what such systems look like in different countries requires understanding of who the actors are in the system, why they behave as they do and what causes actors to compete or collaborate. With this understanding, policies can be better streamlined by focussing on the stakeholders/actors that are directly and indirectly targeted by these policies. In Task 6.1, this additional information will be partly collected through conversations with stakeholders (using questionnaires).

While, strictly speaking, tasks 2.3 and 6.1 have different outputs in TRANSrisk, it is acknowledged that both tasks have strong similarities. It has therefore been suggested that the partners responsible for both tasks (JIN and SEI) will collaborate on this, which could result in a streamlined output (such as a detailed stakeholder / actor characterisation table) for deliverables D2.3 and D6.1, as follows:

- ▲ **Stakeholder scope:** D2.3 will result in an initial identification of stakeholders for the case study countries compiled by partners, including stakeholder affiliation and potential interest in / contribution to TRANSrisk tasks. This stakeholder identification will be mainly based on partners’ professional networks. D6.1 on the other hand, will contain an identification of stakeholders to be included in the system map for the case studies in WP3, followed by a detailed characterisation of them, using questionnaires during bilateral or other meetings with stakeholders. A potential difference between the stakeholder scope in D2.3 and D6.1 is that while D2.3 is based on stakeholders that partners know or are familiar with (from their own networks), D6.1 may also contain stakeholders initially not known by partners, but who have been identified during the first stage of the case study workflow to be included in the system maps (in WP3 and WP6).
- ▲ **Level of detail of information:** Both D2.3 and D6.1 need to characterise stakeholders in terms of interests, drivers, etc. In order to avoid a duplication of work, D2.3 is limited to the basic characterisation of stakeholders that partners will provide as per milestone 1, and that D6.1 extends this information for the stakeholders identified for the system maps. D6.1 will cover three case studies (Indonesia, Sweden and the Netherlands). Partners can then use the template for a stakeholder attribute matrix, which forms the basis for D6.1, to characterise their stakeholders for the system maps in their WP3 case studies.

Figure 1 shows how the combined work on tasks 2.3 and 6.1 supports the case study analysis in TRANSrisk.

Figure 1: Overview of how stakeholder database feeds into TRANSrisk tasks



4 STAKEHOLDER ENGAGEMENT SPECIFICATION PER TASK IN TRANSRISK

The envisaged stakeholder engagement strategy for TRANSrisk will consist of four aspects:

1. Determination of **when** stakeholders will be needed in the project (WP with corresponding project month).
2. Determination of **which** stakeholders and stakeholder groups need to be involved in which WP or task, and whether we have existing and relevant contacts or more efforts need to be undertaken to make more contacts.
3. Assessment of **in what role** stakeholders will be engaged: providing guidance on which mitigation options are most suitable for selection for further study, and **how outreach** should be done.
4. For each task and role, selecting the most appropriate stakeholder engagement **approach**.

Table 3 summarises, based on these four aspects, stakeholder engagement in TRANSrisk tasks, as explained in the project's Description of the Action (Part B of the Grant Agreement). Stakeholder engagement will take different forms in different tasks, such as a participatory (stakeholder engagement) workshop; for one task, a multi-criteria decision analysis survey might be most appropriate, and for another bilateral interviews. Deliverable 2.1 contains a more detailed description of possible approaches; this is not an exhaustive list and, when preparing tasks and deliverables, a more detailed analysis will be done on applicability of each tool given the type of work under the task and the complexity of the work. The dates in the table for stakeholder engagement moments are based on the Gantt-chart for TRANSrisk but may be changed as need arises. They will be finalised as part of the detailed planning of each WP and task in the course of the project.

It is noted that 'workshop' can be a flexible term during implementation of TRANSrisk and case studies, as a 'standard' meeting with 15-20 persons may not always be feasible at a frequency that we aim at. The main objective of having 'workshops' in TRANSrisk is to arrange gatherings where stakeholders can interact and are stimulated to mobilise more of their tacit knowledge. This could imply that in practice, workshops can be relatively small, as long as desired society groups are well represented and a variety of platforms are used. For example, it could turn out to be more effective to collaborate with already planned meetings where TRANSrisk target stakeholders are also present, such as university meeting, international organisation workshops or conferences, or simple lunch meetings hosted by a ministry.

The table describes both the roles for stakeholders who are Members of the Advisory Boards of TRANSrisk and are in close contact with the project team, and 'wider' stakeholders who will be identified and selected from the categories as specified in Section 3.1 (*The range of stakeholders*). The main distinction between Advisory Board members and wider stakeholders is:

- *Advisory Board members* have an important role in preparing for Work Packages and tasks, such as advice on work approach, selection of criteria for analysis, selection of case studies, etc.
- *Wider stakeholders* from Section 3.1 categories actively take part in the project analysis by providing their knowledge, assessments, and recommendations through workshops, interviews and other forms of participatory consultations.

Table 3 below explains how and where stakeholders will be engaged for each task in the project.

For the first step in the case study process of ‘integrating models & analysis with stakeholder participation’ (see Appendix) the following time table is foreseen (for the detailed case studies):

1. Identification of stakeholders - generalist and frontrunners in case study context - February 2016 - Milestone 1.
2. Approaching stakeholders with invitations for case study workshop or gathering (including Stakeholder consent form) - March 2016.
3. Organising stakeholder interaction meeting in case study country - April - June 2016.

Detailed stakeholder planning for the steps 2-4 in the case studies will be included in an updated version of this plan.

Table 3: Stakeholder engagement plan

Task	Action	Type of stakeholder	Stakeholder engagement process ²
WP2 - Stakeholder engagement and interactions			
2.1	Tools and procedures for engaging stakeholders		<ul style="list-style-type: none"> ▪ MCDA ▪ Market mapping ▪ Workshops and focused meetings ▪ Cognitive mapping ▪ H-Form and action planning ▪ Delphi
2.2	Identification of stakeholder engagement in WP 4-7 (BC3)	Potential stakeholders to be engaged in the WPs are: <ul style="list-style-type: none"> ▪ Government departments ▪ Private and public sector industries, associations, and distributors ▪ Electric utilities and regulators ▪ Private sector low emission technology users and/or suppliers 	How the stakeholder will become engaged will be determined for each WP, as this may differ depending on the type of knowledge collection needed, feedback action foreseen or outreach planned

² Note that stakeholder engagement workshops mentioned in this overview table for different tasks could be similar meetings, but with different task-specific slots.

		<ul style="list-style-type: none"> Organisations involved in manufacture, import and sale of technologies Households, communities, SMEs Environmental and social NGOs Technical support providers Labour unions, consumer groups and media Country divisions of international companies International organisation/donors 	
2.3	<p>Identification of stakeholders groups per country. Each partner needs to develop an excel sheet containing the list of the most relevant stakeholders (JIN)</p>	See Task 2.2 above	
2.5	<p>Analysing public acceptance for successful pathway implementation</p> <p>Focus on: public acceptance case studies for Africa, supported by surveys aimed at both researchers (i.e. the scientific community, including corresponding TRANSRISK authors and task leaders) and policy makers (nationally and regionally), for well-described practical energy-climate themes in a set of African countries as identified in task 2.5 (ECN)</p>	<p>Stakeholders involved in this task are the project leaders, authors and research participants of the case studies identified for analysis in Task 2.5. They will be asked to respond to the survey questions</p>	<p>Answer questionnaire as part of survey</p>
<p>▪ WP3 - Country case studies</p>			
3.1	<p>Full EU case studies</p> <ul style="list-style-type: none"> Ask stakeholders to verify the country/regional context storyline Ask stakeholders to identify/comment on barriers and enablers for implementing climate change strategies, policies etc. Ask stakeholders to comment on their perceived impact of the current TIS Share outcomes of WP4-7 with stakeholders, collect comments and views, refine results (SPRU) 	<ul style="list-style-type: none"> Policy makers Case study sector experts and (private) actors (e.g. energy, food, building, mobility) NGOs representing different societal groups, including consumers and researchers, and focussing on specific low emission development topics, such as environmental protection, equity, etc. Financial experts Research institutes 	<ul style="list-style-type: none"> Interviews with stakeholders to collect information about risks, uncertainties and other implementation-related aspects which modellers can use in model runs Workshops Interviews MCDAs when stakeholders need to prioritise options Market mapping when market feasibility/public acceptance/risks/uncertainties of options needs to be assessed
3.2	<p>Other European case studies</p> <ul style="list-style-type: none"> Ask stakeholders to verify the country/regional context storyline Ask stakeholders to 	<ul style="list-style-type: none"> Policy makers Case study sector experts (e.g. energy, food, building, mobility) NGOs representing different societal groups, including 	<ul style="list-style-type: none"> Interviews with stakeholders to collect information about risks, uncertainties and other implementation-related aspects which modellers can use in

identify/comment on barriers and enablers for implementing climate change strategies, policies etc.

- Ask stakeholders to comment on their perceived impact of the current TIS
- Ask stakeholder views on risks and uncertainties within case study context of climate options

consumers and researchers, and focussing on specific low emission development topics, such as environmental protection, equity, etc.

- Financial experts
- Research institutes

model runs

- Workshops (with mapping and Delphi technique)
- Interviews
- MCDA when stakeholders need to prioritise options
- Market mapping when market feasibility/public acceptance/risks/uncertainties of options needs to be assessed

3.3 Case studies in non-EU countries

- Ask stakeholders to verify the country/regional context storyline
- Ask stakeholders to identify/comment on barriers and enablers for implementing climate change strategies, policies etc.
- Ask stakeholders to comment on their perceived impact of the current TIS.
- Collect data on risks and benefits of climate options in selected non-EU countries (SPRU)

- Policy makers
- Case study sector experts (e.g. energy, food, building, mobility)
- Indigenous population impacted by an energy technology system
- NGOs representing different societal groups, including consumers and researchers, and focussing on specific low emission development topics, such as environmental protection, equity, etc.
- Financial experts
- Research institutes

- Interviews with stakeholders to collect information about risks, uncertainties and other implementation-related aspects which modellers can use in model runs for the non-EU countries concerned
- Through MCDA (workshops) stakeholders could prepare short list of climate options which models can further explore as prioritised options
- Offer reality check for model outcomes within country context
- Market mapping when market feasibility/public acceptance/risks/uncertainties of options needs to be assessed

▪ WP4 - Synergies and conflicts between different energy system pathways

4.2

- Consultation of international stakeholders about low emission worldviews
- Incorporate these views in the BCAM model
- Consult stakeholders again with model outcomes

- International stakeholders from international organisations such as multilateral banks, UN-bodies and international NGOs. To be identified by JIN

- Stakeholders from international organisations will be asked questions about their views on a low emission future, including potential barriers to that
- To support stakeholders, BC3 will prepare a short document about potential climate change risks and consequences (based on IPCC)
- These stakeholder views and preferences will be incorporated in a model run by BC3
- The results of the model run will be shared with the same stakeholders with an accompanying questionnaire to learn whether the modelling results have changed their views

4.4 Synergies and conflict of different transition pathways
In conjunction with Task 3.3 stakeholders can be asked to

- Policy makers
- Sector experts (energy, food, building, mobility)
- NGOs
- Financial experts

- Present pathways at workshops (combined with WP3 workshops) to stakeholders and ask for their expert opinions
- Broader sector participation

support 'decision making' for different transition pathways (BC3)

- Research institutes

beyond circular economy areas is needed given the task focuses on synergies and conflicts with broader policy objectives.

WP5 - Uncertainty and risk appraisal of policy options

5.2 Quantitative risk appraisal scenarios

Expert interviews to identify risks associated with climate policy implementation

- Policy makers
- Sector experts (energy, food, building, mobility)
- NGOs
- Financial experts
- Research institutes

- Interviews

5.4 Stakeholder and expert weighting of climate policy risks

Risk assessment of climate policy options with *general* public (ETHZ)

Risk assessment of climate policy options from a *narrower community* of climate policy experts

- Wider audience
- Narrow community of climate policy experts, NGOs, private industry, and research

- (Combined with Task 3.1; therefore, plans need to be aligned) Stakeholder survey focused on general public, aiming at weighing possible climate policy risks. The survey specifies risks and uncertainties per sector/area
- For interviews, the starting point will be an identification of stakeholder groups, as specified as potentially relevant for low emission development (see WP2). Then, for each group, mailing/ contact lists will be prepared and the most appropriate way of approaching them will be established
- Semi-structured interviews with narrow expert group for more in-depth analysis

5.5 Multi-criteria consideration of risks and uncertainty for climate policy

Comparison of stakeholder preferences (climate policy options) with stakeholder risk assessments. This could lead to, for example, highly beneficial options (economic, social & environmental benefits) being ranked lower due to relatively high risks. This will be done with aggregation techniques. Results can be communicated with stakeholders (as in WP3 case study meetings) (ETHZ)

- Policy makers
- Sector experts (energy, food, building, mobility)
- NGOs
- Financial experts
- Research institutes

- Workshop to present aggregated benefits versus risk assessments

▪ WP6 - Innovation policies and transition pathways

6.1 Mapping stakeholder interests and innovation capabilities

Ask stakeholders to identify and verify the interests, roles and resources available to key actors in innovation systems

- Policy makers
- Sector experts (energy, food, building, mobility)
- NGOs
- Financial experts
- Research institutes

- Actor attributes matrix (verify and revise in workshops and interviews)
- Market or system mapping technique (in workshop setting) for expert opinions on who are key stakeholders

(SEI)

- Possibly, in combination with WP3 meetings

6.2	<p>Analysing transition framing/discourses and power relations</p> <p>Analyse innovation system by asking stakeholders about connections between system elements and actors and how these interactions support or inhibit innovation (SEI)</p>	<ul style="list-style-type: none"> ▪ Policy makers ▪ Sector experts (energy, food, building, mobility) ▪ NGOs ▪ Financial experts ▪ Research institutes 	<ul style="list-style-type: none"> ▪ Social network mapping tools (workshops or detailed stakeholder interviews)
6.3	<p>Investigating agency through agent based modelling</p> <p>Ask stakeholders questions about past, present and future of key variables to develop a dynamic model of actor behaviour in innovation systems (SEI/UPRC)</p>	<ul style="list-style-type: none"> ▪ Policy makers ▪ Sector experts (energy, food, building, mobility) ▪ NGOs ▪ Financial experts ▪ Research institutes 	<ul style="list-style-type: none"> ▪ Agent based model
6.4 & 6.5	<p>Innovation policy options in transition pathways</p> <p>Iterative review and feedback with stakeholders on model findings on innovation system policies in case studies (CE/SEI)</p>	<ul style="list-style-type: none"> ▪ Firms and institutions in the energy sector ▪ Policy makers ▪ Households/end-users 	<ul style="list-style-type: none"> ▪ Macro-modelling approaches ▪ Interviews
<p>▪ WP7 - Comparisons of transition pathways and decision support tools</p>			
7.1	<p>Comparison of transition pathways</p> <p>Based on the input of WP4-6, determine (i) causal relation weights and (ii) concept time lags in the aim of creating the fuzzy cognitive maps; as well as (iii) the desired functionality and environment of the web-based application (NTUA)</p>	<ul style="list-style-type: none"> ▪ Policy makers ▪ Sector experts (energy, food, building, mobility) ▪ NGOs ▪ Financial experts ▪ Research institutes 	<ul style="list-style-type: none"> ▪ Workshops ▪ Interviews ▪ Delphi ▪ MCDA
7.2	<p>Portfolio analysis via indirect stakeholder engagement through WP3</p> <p>Ask stakeholders about initial screening of portfolio options, different adaptation or sectoral strategies that they are already implementing (in particular the effectiveness/performance of strategies) (SEI)</p>	<ul style="list-style-type: none"> ▪ Policy makers ▪ Case study sector experts (e.g. energy, food, building, mobility) ▪ NGOs representing different societal groups, including consumers and researchers, and focussing on specific low emission development topics such as environmental protection, equity etc. ▪ Financial experts ▪ Research institutes 	<ul style="list-style-type: none"> ▪ Workshops ▪ Interviews
7.4	<p>Development of a toolbox for mitigation policy pathways</p> <p>Ask stakeholders what</p>	<ul style="list-style-type: none"> ▪ Policy makers ▪ Analytical teams in government and other research centres 	<ul style="list-style-type: none"> ▪ Interviews ▪ Workshop

modelling tools they would
see particularly useful

▪ WP8 - Dissemination

- 8.4 Organisation of events targeted at policy makers and stakeholders
 - Mainly policy makers and high-level decision makers
 - Workshops and conferences
- Organisation of events in case study countries

5 STAKEHOLDER ENGAGEMENT DURING CASE STUDY ANALYSIS (WP3)

For the foreseen integration of the project components ‘Models & analysis’ and ‘stakeholder consultation’ in the case studies (WP3), the first stakeholders to be engaged in the project will be country generalists and ‘front runners’ on a low-emission pathway in the case study country or sector (see Appendix). The generalists will be consulted with a view to their overall knowledge and viewpoints regarding low-emission developments, while the ‘frontrunners’ can help elaborate on their role and motivations during the design and realisation of the low-emission pathways. With these stakeholders, a set of basic research questions will be discussed within their country contexts. These discussions will preferably take place in a workshop setting, to be held (at least for the detailed case studies) between April-October 2016. Should stakeholders not be available for workshop attendance, then bilateral interviews with these persons can be used as fall back option.

In the second step of the case study analysis, more specific research questions may be asked. These will be based on outcomes and viewpoints from the first case study step, and asked to stakeholders who will be identified and recruited with a view to their specific knowledge and experience as considered needed for this second step. At this stage in the case study analysis, an update of the list of stakeholders may be required. While the first round of stakeholder identification (Milestone 1) has mainly been based on stakeholders that TRANSrisk partners know from their own networks and who can address the research questions for the first case study step well, during the second step of the case studies stakeholders may need to be recruited whom partners’ have no collaboration experience with.

Stakeholders identified for the third step in the case study workflow are mainly higher-level policy and private sector decision makers who will be invited to a national workshop on the case study results. These stakeholders are likely to be identified by partners already in the first round of stakeholder identification (MS1) with possible additional stakeholders suggested from the second step.

In steps 4 and 5 of the case study flow (see Appendix) no active stakeholder engagement is foreseen.

6 UPDATES OF THIS STAKEHOLDER ENGAGEMENT PLAN

The first version of this Stakeholder Engagement Plan has been prepared in November 2015 (MS1) on the basis of the DoA and discussions at the inception meeting (September 2015).

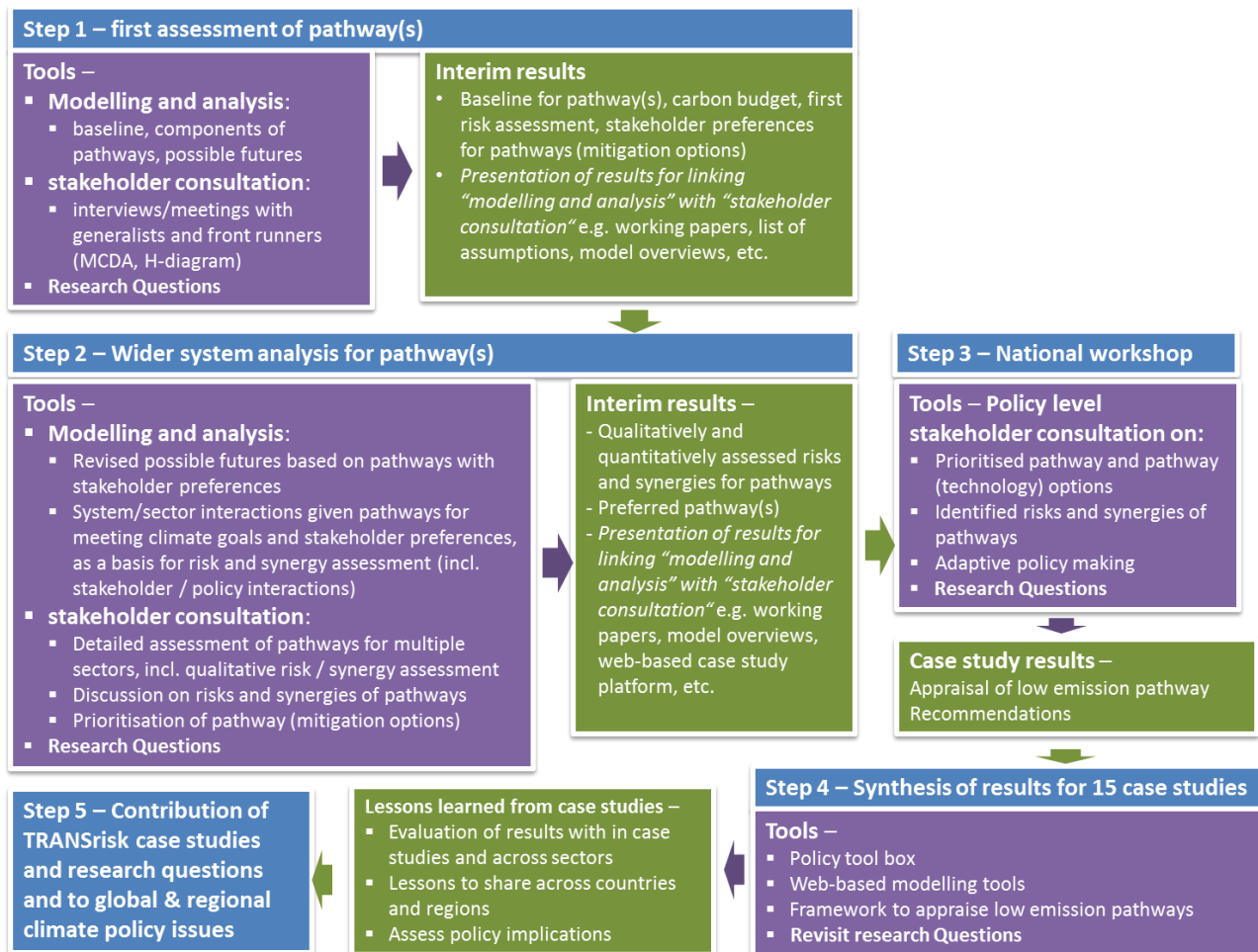
The plan will be reviewed and revised, if necessary during the course of work. When a modification of a stakeholder engagement activity is required, changes in the date, location, nature and purpose of planned meetings and stakeholder interactions will be documented by the partner. These revisions are summarised and substantiated below:

Date of revision	Explanation
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Appendix - Overview of proposed case study steps for TRANSrisk - Integrating qualitative stakeholder engagement tools with quantitative modelling tools



This workflow contains steps for integrating stakeholder consultation, qualitative and modelling tools. In the first step, the case study context is assessed to understand the past, describe the present and formulate a business-as-usual scenario for the country and/or sector into the future. There is a broad focus on all research questions to provide the initial settings and context for transition pathways to test and develop with stakeholders in later steps. For that, modelling as well as qualitative tools can be used. With a selected group of stakeholders, these past-present-future descriptions are discussed in order to identify preferred routes for the sector/country's given desired future(s) and the preferred ways to get there. Interim results are presented as working papers and overviews to outline the approach and initial findings for further development in Step 2.

In the second step, a wider, more detailed analysis is done for reaching the desired future(s). At this stage, stakeholder preferences can be included in model-based scenarios so that a shortlist

of economically feasible and socially acceptable pathways will emerge. For these pathways, uncertainties are considered, both through models and using stakeholder knowledge, based on which risks and opportunities can be identified and assessed (e.g. acceptable or not). Step 2 could be quite participatory as it may involve a number of targeted consultations, depending on the models and other tools being used from WP4-7.

In the first and second step, the results are presented in consistent ways, so that these can be compared across case studies in TRANSrisk. Concerning these results, it is recommended that the output of Step 2 (and therefore input of Step 3) is a higher level of commitment from the project, i.e. “draft” not “interim”, which may take the form of the draft report for the national workshop

In step 3, preferred (i.e. shortlisted) pathways are identified and presented at a national workshop, with a wide group of stakeholders, in order to discuss policy implications of pathways. The outcome of the national workshop would then be agreement, subject to certain revisions.

In steps 1, 2 and 3, a similar set of research questions is used as a basis, to ensure that at all stages qualitative and quantitative methods consider similar questions. However, depending on step 1 or 2 interim results, questions for step 2 and or 3 may need to be modified, extended, etc. The envisaged end result of step 3 is an appraised low emission pathway for the country/sector.

All case study results are then synthesised in step 4 in order to identify commonalities and differences between them, for example which tools and approaches have worked well or not so well under which circumstances. The aim is to arrive at a framework which applies quantitative and qualitative tools for achieving a desired socio-economic future with the lowest emissions possible, which can be used for addressing multiple global and regional climate policy issues (step 5).