



IMPETUS

Turning climate commitments into action

D1.1

Stakeholder mapping, analysis and engagement roadmaps in demo-sites

31st January, 2023

D1.1

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Abbreviations

Abbreviation / Acronyms	Description
(A)MGA	(Annotated) Model Grant Agreement
CA	Consortium Agreement
CFS	Certificate of Financial Statement
DS	Demo-Site
EAB	External Advisory Board
EC	European Commission
EU	European Union
FP	Framework Programme
GA	Grant Agreement
PSB	Project Steering Board
PMT	Project Management Team
PC	Project Consortium
WP	Work Package
WPL	Work Package Leader
SH	Stakeholder
SHA	Stakeholder Analysis
SHE	Stakeholder Engagement
SH Register	Stakeholder Register
QH	Quintuple Helix
ToC	Theory of Change
RKBs	Resilience Knowledge Booster
ESCI	The European Science Communication Institute
Eurecat	The Technology Centre of Catalonia
M&E	Monitoring and Evaluation
GDPR	General Data Protection Regulation



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Executive Summary

Deliverable 1.1 is a public report delivered in month 16 (M16) corresponding to Task 1.1. It contains a mapping of the identified stakeholders (SHs), their participation and engagement in terms of role and potential contribution to project activities per each demo site (DS). This feeds into one SH register per each DS (Excel databases). It also contains a description of the SH engagement (SHE) plans and theories of change (ToCs) with specificities for each participating DS in the form of a SHE, co-creation and communications roadmap per each DS. This deliverable is linked to activities in WP7 (communication), and provides a framework for activities in WP3 (exposure and vulnerability assessment) and WP4 (deployment of solutions at demo-sites) using tools developed in WP2 (Digital and knowledge dimension of Resilience knowledge Boosters (RKBs)).

This deliverable is broken down into:

- [Chapter 2 Activities and Methods](#)
- [Chapter 3 Results of the stakeholder survey](#)
- [Chapter 4 Stakeholder mapping and stakeholder analysis results](#)
- [Chapter 5 Stakeholder engagement, co-creation and communications plans](#)
- [Chapter 6 Reflections, conclusion and next steps](#)
- [Annex 1 Results of Stakeholder Survey per DS](#)
- [Annex 2 List of Organisations per DS per Quintuple Helix Stakeholder](#)
- [Annex 3 Internal Guidance Documents for DS](#)

The SHE and co-creation as designed by WP1 includes 3 steps: 1) stakeholder mapping (ToCs and SH register), 2) stakeholder analysis and survey, and 3) SHE, co-creation and communications. Each of these steps were explained to the DSs with a unique Guidance Document, each of which are included in [Annex 3](#) of this deliverable. This methodology is based on previous research and practice of WP1 leaders.

As a first step to identify SHs, WP1 asked the DSs to draft ToCs to enable a better understanding of their local context for the DSs themselves in relation to the DSs and project expected impacts, outcomes and outputs. Based on this understanding, DSs were able to identify all relevant SHs in their DS across five groups of SHs: academia; industry and economy; state, government and policy; uninformed citizens, media and culture; and the environment in and of itself. These five SHs groups correspond to the Quintuple Helix (QH) SH approach used to enable a transdisciplinary process of co-creation, implementation and analysis of public policies (Eelman & Feldman, 2018).

A SH survey was designed to gain understanding of SHs perspectives on local climate problems and solutions and on their interest in and capacity to contribute to the IMPETUS project. The survey was distributed after the stakeholder identification and reached over 850 local actors across Europe via social media, press releases and email correspondence. Approximately 400 of those who were reached out to responded to the survey which enabled WP1 to gather a variety of useful data points for the IMPETUS DSs and WPs project work. Despite the differences in bioregions, “drought and water scarcity” was highlighted as one of the most urgent climate change problems by local actors in 5 out of 7 of the DSs. Interestingly, the most cited solution to climate change problems across the DSs was “responsible resource use and circularity” in 4 out of 7 DSs.

The SH survey was a key component of the 2nd step of the overall WP1 SHE and co-creation approach, as it enabled DSs to gain additional insights into their local SHs. Once all the data was collected, WP1 analysed the data and input sections into the SH register for the DSs to be able to better engage and communicate with their SHs. The analysis of the survey data as presented in [Chapter 4](#) and [Annex 1](#) was also shared with the DSs and WPs at the end of September 2022 as key information to help co-create their DS and WP tasks and therefore climate change adaptation and mitigation solutions across the 7 bioregions.

Finally, with all the information at their disposal, DSs were able to map their SHE, co-creation and communication roadmaps. These roadmaps were developed as a specific additional layer of the DS ToCs, which enabled planning and visual representation of the SHE, co-creation and communications required to engage local SHs in the DSs climate change adaptation and mitigation solutions.



All the tools the DSs are using in WP1 are living documents which can be updated and iterated over time with input from the SHs and as the project progresses. DSs have at their disposal key resources, tools and planning documents to support their SHE, co-creation and communications ([included in the 3rd Guidance Document – Annex 3](#)). The [ConCensus approach](#), for example, is one such SHE tool that the DSs have for use in their DSs as needed.

This deliverable therefore highlights the processes and key data in WP1 and the DSs until the end of January 2023. Overall, this was a time-consuming process for both WP1 and supporting WPs, as well as the DSs. SHE and co-creation necessitates effective and iterative project management processes and often requires more time than is pre-allocated in projects. Hence the reason for postponing the submission of this deliverable from M12 to M16. Despite this, with the tools developed over the past 16 months and presented in this deliverable, DSs are on the right track to effectively engage SHs in their regions. The next steps will be monitoring and evaluating that engagement.



1 Introduction

WP1 aims to support IMPETUS DSs and WPs to identify (Task 1.1) and effectively engage (Task 1.2) stakeholders (SHs) throughout the project lifetime to ensure the development and implementation of locally relevant climate adaptation and mitigation solutions, including identification and discussion with SHs of the multi-level governance barriers for the adoption of such solutions (Task 1.3).

1.1 Objectives of task and deliverable

D1.1 is a public report delivered in month 16 (M16) corresponding to Task 1.1. It contains a mapping of the identified stakeholders (SHs), their participation and engagement in terms of role and potential contribution to project activities per each demo site (DS). This feeds into one SH register per each DS (Excel databases). It also contains a description of the SHE plans and theories of change (ToCs) with specificities for each participating DS in the form of a stakeholder engagement (SHE), co-creation and communications roadmap per each DS. This deliverable is linked to activities in WP7 (communication), and provides a framework for activities in WP3 and WP4 using tools developed in WP2.

WP1 supports DS in the SHE and ensures coordination of the SHE needs across the WPs and between WPs and DSs. On the one hand, DSs have their DS-level activities and tasks as laid out in WP4 (deployment of solutions at DSs), which require SHE for their local climate adaptation and mitigation plans. On the other hand, WPs which are working on project-level activities such as the development of the Resilience Knowledge Boosters (RKBs), Innovation Packages and Adaptation Pathways, which also require a SHE with DS SHs to co-create the project-level methods, tools and outputs. WP4 and DS activities will also provide data to the WP2 (digital and knowledge dimension of the resilience knowledge boosters), WP3 (exposure and vulnerability assessment), and WP5 (adaptation pathways and innovation packages) work via SHE.

Therefore, WP1 has the ultimate goal to integrate both these levels of SHE into [DS SHE Roadmaps](#), which both the DSs can use to effectively plan and coordinate SHE in their DSs, and that the WPs can use to consult and effectively plan the SHE with the DSs and SHs. However, at this point in time for this D1.1, the DS roadmaps will only include the DS level SHE plans, and there will be a separate WP project-level SHE roadmap, which is included in [Chapter 5.8](#) of this deliverable. These two roadmaps will be integrated over the course of 2023 in a coordinated manner with the DSs and the WPs, and will be made available for the M24 D1.2 of WP1 reporting on the SHE implementation.



2 Activities and Methods

D1.1 compiles the results of the following activities and methods conducted in task 1.1 under the lead of KWR and in close collaboration with WP7 (communication) under the lead of ESCI.

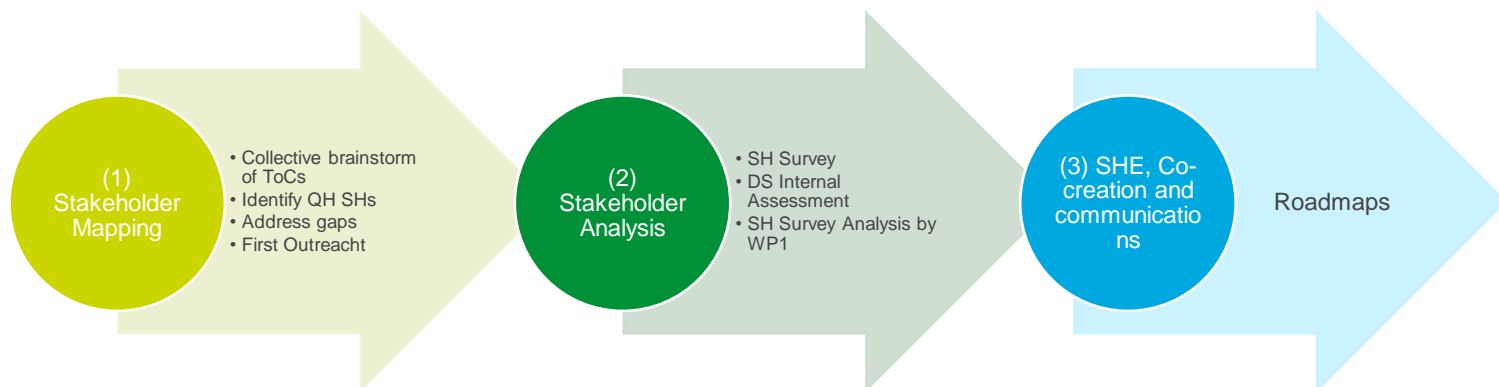


Figure 1 WP1 Steps for Stakeholder Engagement and Co-Creation

(1) Stakeholder mapping:

- a. DSs mapping Theories of Change (ToCs) – Collective Brainstorm
- b. Identifying the Quintuple Helix (QH) stakeholders in a SH register
- c. Addressing gaps in the SHs through snowball sampling, focus groups, etc.
- d. First outreach to SHs via email, introducing the DS and the upcoming SH survey

(2) Stakeholder analysis (SHA):

- a. Stakeholder survey developed, translated into local languages with DSs, and distribute
- b. DS internal assessment with the Mitchell et al. (1997) framework for SHs power, interest and legitimacy assessment
- c. SH survey data analysis by WP1

(3) Stakeholder engagement (SHE), co-creation and communications:

- a. Bringing together the previous steps into a SHE, co-creation and communications roadmap

Across each of these phases, WP1 delivered [guidance documents](#), which are presented in Annex 3 of the current report, to the DSs with practical step-by-step support on how to perform each step. This was supplemented by workshop and training sessions with all DSs, as well as one-on-one meetings.

(1) **Stakeholder Mapping Methods** (See [Annex 3 Guidance 1](#) for a more detailed description)



Stakeholder mapping is the process of brainstorming, listing, and storing of basic information about the individuals, organisations, groups, networks and local initiatives that are affected by or affect the IMPETUS project. To clearly **define the scope** and objectives of the demo-site (DS), in other words, the context within which you are working, and the potential outcomes and impact you anticipate, a **Theory of Change** (ToC) approach can be used (Belcher B, 2020) (See Fig. 3). Collaboratively defining a ToC also helps to ensure all DS partners and core stakeholders can consider all assumptions, actions, barriers and stakeholders needed at specific steps to achieve the intended outcomes and impact of the DS, and to work in a flexible and adaptive manner over the course of the project (Bozeman, 2003).



Figure 2 Stakeholder identification steps

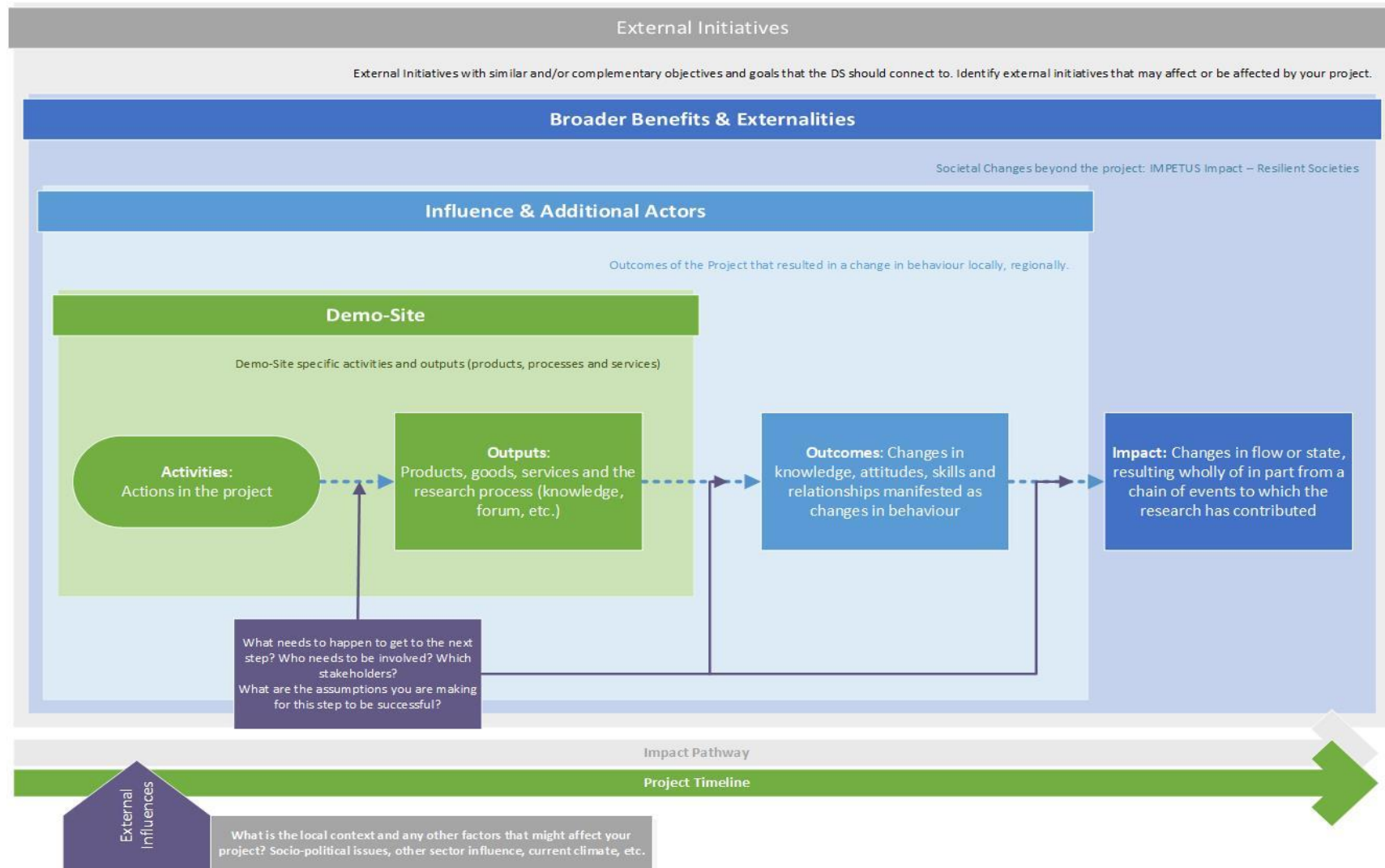
ToCs were produced by the DSs ex-ante mapping of the local context, goals and ambitions of the DSs, thus helping the DSs to better understand which SHs might need to be involved or might be affected by the DSs activities. Once the DSs completed their first version of their ToCs, they then started to identify SHs in a **SH register** (See Fig. 4) based on who they thought would be important to involve and who might be affected.

The SH Register was developed as a means for DSs to track their SH mapping in several steps, resulting in a useful register of SHs which they can filter and categorise groups of SHs for SHE (WP1) and communications activities (WP7). The DS SH Registers are to be used as a “living document”, i.e. to be updated and refined over time to reflect the changing understanding of and relationships with the SHs. DSs were asked to identify SHs spanning all **Quintuple Helix (QH) groups**, and this was verified by WP1. QH SH are based on the work of Carayannis et al (2012) and include the five following groups of SHs: academia; industry and economy; state, government and policy; uninformed citizens, media and culture; and the environment in and of itself. The QH SH groups and this approach was used to enable a transdisciplinary process of co-creation, implementation and analysis of public policies (Eielman & Feldman, 2018). More details on the QH SHs are included in [Annex 3 of this deliverable](#) (Guidance 1 Annex “Quintuple Helix Stakeholders”). DSs identified QH SHs during **focus group meetings** with their respective DS partners and

a small group of core SHs already engaged; as well as through **snowball sampling**, whereby they asked identified SHs to suggest further SHs (Reed et al., 2009). Additional SHs were also identified via the SH survey, which were added to the SH register over time. As the steps for SHE progressed (Fig. 1), so did the SH Register, as WP1 added in new columns following the steps of the SHE process (Fig. 1) and the respective data collected that would be useful for the DSs to better understand their SHs expectations, desires for getting engaged, and therefore to plan their engagement activities.

Fig. 4 shows the SH Register, but this can be accessed for better visualisation of this template in the [Eurecat SharePoint here](#). The SH Registers for each DS are not shared in this deliverable as they contain sensitive information that are covered under the European GDPR.

Once the DSs had addressed gaps in their SH Registers, WP1 and WP7 advised the DSs to do a first outreach to the SHs via email to introduce them to the IMPETUS project, their DS and its objectives with the ToC graphics, and to let them know a SH survey would be distributed. The SHA and survey are explained in more detail in the next section.



Legend:

---> This connector arrow in between signifies the intermediary processes, assumptions and stakeholder engagement and/or outreach needed to get from one step to the next (activities to outputs, to outcomes, to impact).

External influences are the external factors that could influence the outcomes and Impact of your solutions. It will be important to consider these in the initial outline and scope of your DS and climate adaptation solutions. Examples include expected changes in legislation, upcoming political elections at local, regional or national scale, etc.



Figure 3 Template of a DS ToC

(2) Stakeholder Analysis & Stakeholder Survey

The aim of the SH analysis and survey was to support **a process for the DSs of differentiating between, categorising and investigating relationships between stakeholders** (Reed et al., 2009). This is an important step in the overall SHE process, as it enables the understanding of who has the power to influence outcomes and impacts in each DS (Freeman, 1984). It also supports the prioritisation of these individuals and groups for their involvement in the activities and impact pathways defined in the DS ToCs and the work of other WPs in the IMPETUS Project.

This was done by the following sub-steps:



Figure 5 Stakeholder analysis steps

First, developing and sending out a **(1) SHs knowledge, perceptions, and expectations** survey ([Annex 3 Guidance 2](#)) to all identified SHs in the DSs. The survey consisted of questions that aimed to understand the SHs' level of knowledge on climate change, climate change adaptation and mitigation, climate change initiatives in their regions, as well as their perceptions of the DS activities in their region to support ongoing climate change work; and if and how they could contribute to the DS activities. The survey questions were also developed to feed data into other WPs activities. WP1 developed the survey with feedback from the DSs and WP7. The DSs then translated the surveys into the local languages, and then the survey was distributed via three phases as seen in Fig. 6; first an email from the DSs to all identified SHs, then shared via press release in local media outlets, as well as shared on social media (Twitter, LinkedIn, etc.) by the DSs and the IMPETUS social media handles, and finally to any other new SHs identified by the DSs during the process. Sharing on these multiple platforms and phases helped to reduce any DS bias in SH identification and thus uncovering any other interested stakeholders not previously identified. It also helped to raise awareness about the IMPETUS project in the DS regions.

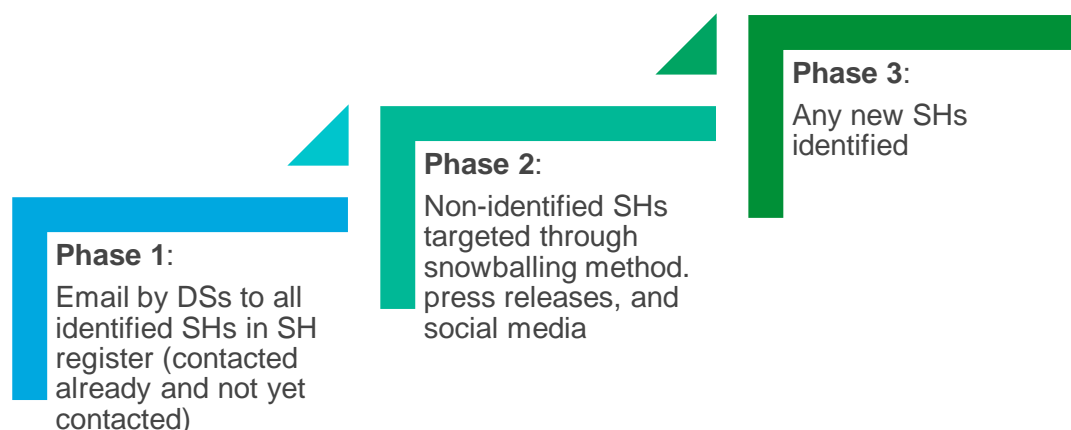


Figure 6 SH survey outreach phases

The surveys were left open for 3-5 weeks, depending on the date of sharing the survey and the number of responses. Each DS was asked to actively promote the survey in the most locally relevant ways (social media, phone calls, emails, etc.), and to reach a minimum of 50 responses per DS. The results of the survey are provided in [Chapter 3](#).

Once the surveys were closed, DSs were also asked to perform the **(2) DS internal assessment**, based on the framework of Mitchell et al (1997). The analysis consisted of the DS project partners assessing

their identified SHs for power, urgency and legitimacy attributes based on their understanding of these attributes as defined in Table 1 and also in [Annex 3 Guidance 2](#).

Table 1 Power, urgency and legitimacy definitions as per Mitchell et al 1997

Attribute Definition
Power: “A relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done.” Can be negative or positive.
Legitimacy: The principle of “who or what really counts” – based on either a legal basis or on socially constructed recognition that the stakeholder(s) are relevant, depending on the local context or situation.
Urgency: “The degree to which stakeholder claims call for immediate attention.” Time sensitive issue or perceived importance of an issue.

When the data from the survey was compiled by WP1 at the end of May 2022 and added into the SH Registers of each DS, DS Leaders then provided their own preliminary assessment of the SHs identified and those additional SHs who filled out the survey. DSs assessed each SH based on their perception of the SH’s power, legitimacy and urgency (Table 1). This was done by marking an “x” and adding a phrase about why this SH possesses this attribute in the “Explanation” columns added into the SH Register.

If the DSs did not know the individual SH, then they could make the assessment based on the organisation. If the SH and the organisation are unknown to the DS, the columns in the SH register were left blank and marked as “unknown” in the column next to the assessment columns. This assessment was done as a DS group collectively. Once all SHs were assessed by the DSs, WP1 then categorised the SHs based Table 2 SH types and to understand whether the stakeholders are **latent** (possess only 1 attribute – 1, 2, 3) , **expectant** (possess 2 attributes - 4, 5, 6) **or definitive** (possess all 3 attributes - 7) (Mitchell et al., 1997).

This will help to identify the stakeholders who need more or less attention and to develop targeted communication and engagement strategies in the SHE, co-creation and communications plan, which will also help to reduce stakeholder fatigue. It is important to note, however, that **SH attributes can and will change over the course of the project**. Therefore, DSs will continue to monitor SHs and their attributes throughout the duration of the project and to adjust engagement and communications strategies as needed

Table 2 Stakeholder attributes and types based on assessment (based on Mitchell et al. 1997)
P=power; L=legitimacy; U=urgency

	Attribute	Stakeholder Type
Latent: SH possesses 1 attribute	P	1 – Dormant: Possess power to impose their will, but without legitimacy or urgency, their power remains unused. Ex: A potential investor.
	L	2 – Discretionary: Possess legitimacy, but no power or urgency. Ex: non-profit who receives donation.
	U	3 – Demanding: Possess urgency but no power or legitimacy. Ex: individual protester.
Expectant: SH possesses 2 attributes	PL	4 – Dominant: Influence is assured, have a certain authority, ability to act on legitimate claims. Might have a formal mechanism acknowledging the importance of their relationship with the DS. Ex: Relationships with funders, authorities, etc.
	PU	5 – Detrimental: May seek to advance their claims, even though they are not legitimate. High risk. Ex: Strikes, sabotage.
	UL	6 – Dependent: Lack power, but have urgent and legitimate claims. They depend upon others for the power necessary to carry out an action. Ex: local residents, natural environment.
Definitive: SH possesses all 3 attributes	PUL	7 – Definitive: Possess all 3 attributes. Give priority and focus. <i>Awareness of possibility of other types of SHs to move into this category, e.g. Expectant SHs.</i>

In addition to the internal assessment by the DSs, **(3) WP1 analysed the SH survey data** for use by the DSs and other project WPs. This data was inserted into the SH Registers where relevant, and translated into pie graphs and bar charts and was sent back to all DSs so they could better understand their SHs and the local situation in which the DSs are operating. This approach allowed to eliminate biases in the SH identification, by means of data triangulation: first survey respondents (i.e. DS SHs reached out to or who discovered the survey via other outreach methods) could provide self-assessments of their own power, urgency and legitimacy via specifically designed survey questions (e.g. how important is climate change to you, how many years of experience do you have, what is your role in your organisation, etc.); second, the DSs made their own assessment of the SHs based on their own knowledge and perception of the SHs via the DS internal assessment described above; and third, WP1 analysed the SHs' survey data.

Below are explanations for specific survey questions and the methods through which the data was analysed. This aims to help the reader better understand the DS SH survey results in [Chapter 3](#).

Questions on Most Important Climate Issues and Solutions to those Issues

In the survey, respondents were asked to indicate what they considered to be the most important climate change problems in their region. Subsequently they were asked what types of solutions would be best to tackle these problems. These questions were open-ended, meaning that respondents could answer with whichever climate issues and solutions they felt were most important in their region, ranking them in a Likert scale from “most important” to “important” to “least important”.

The variety of climate change problems mentioned was manually coded per DS by WP1 to distill common categories (open coding). The same was done for the solutions offered by respondents. After coding the data from all of the DS surveys, WP1 compared the codes and aligned them with one another where possible, to allow for cross-comparison. WP1 then counted the number of times that each problems category was mentioned per DS and placed these in descending order, and visualized these in graphs. Rather than providing a similar list of most mentioned solutions, WP1 filtered the data to select the solutions offered for the two most mentioned climate change problems. These were put in a separate table and visualized in graphs. This method allowed us to identify the key climate change concerns among respondents and the solutions they considered most suitable for the two most important problems.

In some DSs with multiple different sub-activities and climate change themes, this question was complemented by a secondary tailored question about which DS topics they felt were the most interesting. This question was asked to see which survey respondents would want to work on which topic in the DS, and to therefore categorise the SHs and further finetune how DSs communicate to them about the specific topics. However, some SHs indicated they would be interested in one or more of the topics, so DSs will need to look into that for each individual SH by filtering their SH Registers accordingly. As for the SH Analysis in [Chapter 3](#) and [Annex 1](#), we aggregated the data to showcase the percentage of responses per topic. Catalonia, Zeeland and the Arctic DSs have such additional tailored questions in their surveys.

SHs Knowledge and Perception on Climate Change per QH SH Group

In the survey, each survey respondent was asked about their perceived level of knowledge on the five topics below. The five topic titles have been shortened for ease of reading in the graphs in the respective subchapters for each DS.

- Politics, governance or finance related to climate change
- Planning related to adaptation to climate change
- Digital tools and solutions (artificial intelligence, augmented reality, digital twins, models, sensors, etc.)
- Analysis of climate change vulnerability and risks (social, natural, economic, infrastructure, etc.)
- Climate change warning systems
- Communicating key messages, engaging stakeholders

It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. This is a result of lack of equal numbers of survey responses across all QH SH groups, despite DSs best efforts to engage all QH groups.

(3) Stakeholder engagement, co-creation and communications



Now that WP1 and DSs have more information about the stakeholders, their expectations and ideas from the survey, DSs can fine-tune the ToCs and add in engagement and communication activities that will enable the impact pathways of the ToCs, thus delivering on the various DS goals and desired impacts. The assumptions in the ToCs will be verified as well and updated as needed, given the results of the analyses and realities among the identified SHs.

SHE, co-creation and communication roadmaps (Fig. 7) were designed through the consolidation of the above elements i.e.: (1) understanding the local context and design of goals and ambitions through activities for each DS via ToCs, (2) mapping of local SHs, and (3) SH analysis. The design of SHE, co-creation and communications roadmaps started with a training session to the DSs on September 30th hosted by both WP1 and WP7, and culminated in each DS developing its own SHE, co-creation and communications roadmap for its DS SHE activities.

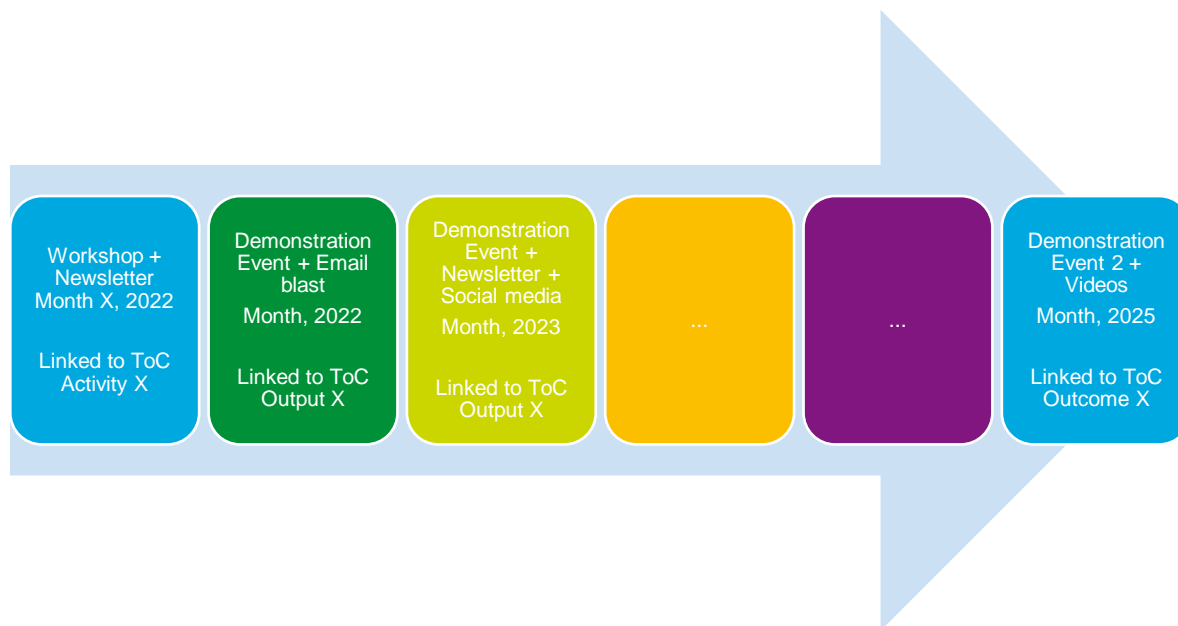


Figure 7 Template for DS SHE, co-creation and communications roadmap

WP1 and WP7 created a guidance document on SHE, co-creation and communications (Guidance 3, [Annex 3](#)), as well as hosted the aforementioned training session for DSs, as WP1 and WP7 had many overlapping tasks and activities. In addition, SHE and co-creation and communications are oftentimes inextricably linked. As such, the SHE and co-creation roadmaps also include communications activities related to SHE activities and beyond, and also are linked to the delivery of goals and ambitions in the DS ToCs.

Each DS has therefore designed their SHE, co-creation and communications roadmaps in a timeline format, including both engagement-type activities, communication activities, and how they link together with their goals and ambitions as indicated in their ToCs, compiled in [Chapter 5](#) of this deliverable. These activities were decided based on the DS needs, the input from local SHs via the survey and any discussions the DSs have had with the SHs in the meantime. Furthermore, the DSs have done so with a recognition that the ToCs, roadmaps and SH Registers are “living documents” and can and should change over time to reflect the local realities. As such, the SHE, co-creation and communication roadmaps that are included in [Chapter 5](#) of this document are the roadmaps from the DSs at this point in time to the best of their knowledge, and these will be updated and included in WP1 D1.2 (Co-creation process in DSs due in M24) to show how DSs have tailored their SHE, co-creation and communications over time to best suit the local needs and to ensure impact delivery in their regions.

DSs sent a first draft of their roadmaps on November 15th, 2022 to WP1 and WP7 for review. These were sent back to DSs with feedback and next steps. Updated versions of the roadmaps and ToCs as of December 2022-January 2023 are included in this deliverable.

As mentioned in the introduction, the SHE, co-creation and communications roadmaps will eventually also include the SHE required for the WPs project-level activities. However, for this current D1.1, we will



have 2 separate roadmaps: 1 for the DSs local activities and SHE, co-creation and communications, and 1 for the WPs SHE needed with the DS SHs for the project-level activities. These roadmaps will be integrated in early 2023 and will be made available in D1.2 (Co-creation process in DSs due in M24) on reporting on the implementation of SHE and co-creation in the DSs.

List of WP1 Meetings and Trainings with other WPs and DSs

The below list outlines the sequence of WP1 meetings with the DSs and other WPs – one-on-one meetings and trainings – referred to in the above text, with a description of their goal. The trainings on the Guidance Documents 1 and 3 were attended by all DSs, and one-on-one meetings with DSs and WP1 were optional (as needed based on the DSs availability and understanding of guidance sent in the documents / via email). When available, links to the PowerPoint slides used for those meetings are included in the description of the goal.

Table 3 List of WP1 Meetings with DSs and WPs throughout the SHE process

Date	Meeting	Goal	Link to WP1 SHE Steps
October 22 nd , 2021	IMPETUS Kick-Off Meeting – WP1 Working Group	Presenting the goals and steps of WP1 on SHE	Pre-SHE
October 25 th , 2021	WP1 and WP2 Meeting	Understand WP interlinkages, goals and objectives	General WP1 Coordination
November 26 th , 2021	First DS6 Zemgale and WP1 one-on-one meeting	Understanding DS goals and objectives, and their SHE capacities* * Same link for all DS one-on-one meetings with WP1	Pre-SHE
November 26 th , 2021	First DS7 Valle dei Laghi and WP1 one-on-one meeting	Understanding DS goals and objectives, and their SHE capacities	Pre-SHE
November 29 th , 2021	WP1 and WP5 Meeting	Understand WP interlinkages, goals and objectives	General coordination
November 30 th , 2021	WP1 and WP4 Meeting	Understand WP interlinkages, goals and objectives	General coordination
November 30 th , 2021	WP1 and WP7 Meeting	Understand WP interlinkages, goals and objectives	General coordination
December 1 st , 2021	First DS4 Zeeland and WP1 one-on-one meeting	Understanding DS goals and objectives, and their SHE capacities	Pre-SHE
December 7 th , 2021	First DS3 Attica and WP1 one-on-one meeting	Understanding DS goals and objectives, and their SHE capacities	Pre-SHE
December 7 th , 2021	First DS1 Berlin and WP1 one-on-one meeting	Understanding DS goals and objectives, and their SHE capacities	Pre-SHE
December 8 th , 2021	WP1 and WP3 Meeting	Understand WP interlinkages, goals and objectives	General coordination
January 17 th , 2022	WP4 Meeting for all DSs with WP1	Discuss WP4 goals and overlaps with WP1 with DSs, and present WP1 First Guidance Document on SH identification, ToCs and SH Registers	Step 1
February 11 th , 2022	DS7 Valle dei Laghi and WP1 one-on-one	Discuss WP1 Guidance 1 - ToCs and SH Register	Step 1



February 11th, 2022	DS4 Zeeland and WP1 one-on-one	Discuss WP1 Guidance 1 - ToCs and SH Register	Step 1
February 14th, 2022	DS6 Zemgale and WP1 one-on-one	Discuss WP1 Guidance 1 - ToCs and SH Register	Step 1
February 18th, 2022	First DS5 Arctic and WP1 one-on-one	Discuss DS goals and objectives, and WP1 Guidance 1 - ToCs and SH Register	Pre-SHE and Step 1
February 24th, 2023	DS1 Berlin and WP1 one-on-one	Discuss WP1 Guidance 1 - ToCs and SH Register	Step 1
February 25th, 2022	WP1 and WP6 Meeting	Understand WP interlinkages, goals and objectives	General coordination
March 1st, 2022	WP1 and WP7 Meeting	Understand WP interlinkages, goals and objectives	General coordination
March 23rd, 2022	DS5 Arctic and WP1 one-on-one	Discuss WP1 Guidance 2 – SH Survey and Analysis	Step 2
April 1st, 2022	DS4 Zeeland and WP1 one-on-one	Discuss WP1 Guidance 2 – SH Survey and Analysis	Step 2
<p>April – September 2022 DSs working on Step 2 of WP1, SH Survey and Outreach, WP1 analysing Data and Adding to SH Registers, DS Internal Assessments, WP1 informing DSs via email each step of the way and meetings as needed</p>			
September 30th, 2022	WP1 and WP7 Meeting with all DSs	<u>Present 3rd Guidance Document to all DSs on designing SHE, co-creation and communications</u>	Step 3
October 3rd, 2022	DS2 Catalonia, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 4th, 2022	DS7 Valle dei Laghi, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 5th, 2022	DS3 Attica, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 6th, 2022	DS6 Zemgale, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 7th, 2022	DS4 Zeeland, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 10th, 2022	DS5 Arctic, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3
October 19th, 2022	DS1 Berlin, WP1 and WP7 Meeting	Discuss Guidance 3 and SHE, co-creation and communications	Step 3



3 Results of Stakeholder Survey

The IMPETUS SH survey was distributed by all DSs through several means:

- Direct email outreach to identified SHs
- Social media outreach through the DS and partners channels; and
- Press releases across all the DSs.

Table 4 Identified SHs and survey responses per DS

DS	2) Number of DS Pre-Identified SHs	3) Identified Pre-Identified SHs who answered the survey and want to be involved in the DS*	4) Total survey responses	5) New SHs from Survey	6) Total SHs (pre-identified + New SHs from survey) in DS as of Aug 2022
1 Berlin	22	0	65	35	57
2 Catalonia	77	4	37	24	101
3 Attica	161	7	79	48	209
4 Zeeland	31	6	37	13	44
5 Arctic**	206	28	87	26	232
6 Zemgale	93	8	44	20	113
7 Valle dei Laghi	84	0	48	26	110

*Note the number of pre-identified SHs who answered the survey are only those who indicated they wanted to be involved in the DS. If they did not want to be involved in the DS, we did not collect their contact information, so it is possible more pre-identified SHs filled out the survey but we don't have the data.

**Note that DS Arctic had 2 separate surveys distributed, so the totals above are based on the combined survey numbers.

Table 3 shows in the first column the number of SHs that were identified by the DSs after they finalised their ToCs, noted as “pre-identified SHs”. The 2nd column shows the number of how many pre-identified SHs filled out the survey and actually indicated they wanted to be involved in the DS activities. The 3rd column shows the total number of complete survey responses (complete refers to answered at least 30% of the survey). The 4th column shows the new SHs that were identified via the survey outreach (press releases and social media), which are survey respondents who indicated that they would like to be involved in the DS activities and/or would like to keep in touch via email. These SHs identified via the survey help to reduce the DS bias in the SH identification, as these are SHs who are self-identified and want to get involved. The final column shows the total number of SHs per DS (pre-identified SHs by the DS plus new SHs who indicated their interest to join the DS from Survey) as of August 2022.

The total number of SHs involved in each DS is likely to change over time as the DSs start planning their engagement and co-creation activities, and reach out to new SHs and pre-identified SHs again as is relevant.

The survey overall was a success, as the DSs with support from WP1 and WP7 cumulatively identified and reached out to 866 SHs via email, press releases and social media (sum of total SHs identified as seen in column 6 of Table 1). Of these SHs, around 400 responded to the survey (46% response rate), which provided IMPETUS partners with various useful data points that were collected on different questions for the DSs to be able to inform their activities and tasks on climate change adaptation. The survey was also a success as many new SHs came forward to answer the survey. However, the response rate of the pre-identified SHs is quite low and therefore we do not have much data for all SHs in the DS SH registers which poses some challenges for planning the engagement activities. The bulk of the data comes from new SHs. DSs will continue to try to engage all pre-identified SHs along with the new SHs in the DSs.

As such, WP1 and other WPs as relevant will continue to work with the DSs over the course of the project to ensure that the engagement and co-creation is evolving and adapting as needed, based on input, ideas and knowledge from the local SHs. Ultimately, WP1 aims to support the development of locally relevant solutions and the project RKBs with lasting impact even beyond the project lifetime.



Below, we give a synthesis of the survey results. The actual results (tables, graphs, etc.) for each DS are included in the [Annex 1](#).

Initial results showed that **82%** of the survey respondents said that **climate change is important to them personally or for their work**. The respondents included a mixture of expert stakeholders and non-expert citizens. Many judged themselves to be knowledgeable in areas such as regional planning related to climate change, analysis of vulnerability and risks, and warning systems. However, the following knowledge gap appeared: **45% of IMPETUS survey respondents were not aware of climate change adaptation initiatives already taking place in their area** compared to 55% who said such initiatives were known to them. These findings imply that IMPETUS and other climate change projects have a real opportunity to fill this knowledge gap and to engage with interested stakeholders on the co-creation of climate change resilience solutions at local level.

With approximately 400 respondents, we were able to collect a variety of useful data points for the IMPETUS DSs and WPs project work. Below, we will highlight some of the key findings from the survey.



Figure 8 IMPETUS Stakeholder Survey Results

The above infographic highlights the key results from the IMPETUS SH survey. Despite the differences in bioregions, “drought and water scarcity” was highlighted as one of the most urgent climate change problems by local actors in 5 out of 7 of the DSs. Following that, other top urgent problems included: ecosystem decline, floods, and extreme weather events. Interestingly, the most cited solution to climate change problems across the DSs was “responsible resource use and circularity” in 4 out of 7 DSs. The code “responsible resource use and circularity” includes all solutions suggested by survey respondents



such as sustainable groundwater use, to water saving and use of alternative water resources, as well as circular solutions. Following this solution, other highly rated solutions included: behaviour change, technology and infrastructure, policy change and incentives as well as general awareness raising and education.

One of the questions asked in the survey was about the key expectations local actors had about the project outputs and impact in their regions. The local actors responded with 2 main expectations: “recommendations to policy makers” and “pilots and demonstrations” in 7 out of the 7 DSs. Closely following these results included other expectations such as: joint planning on climate change adaptation, developing a shared vision with local SHs, and building a community or network of local SHs.

Other interesting data to note is that the average age of all survey respondents is 49, however, in Catalonia, Attica, Zeeland and Valle dei Laghi, there were significant groups of respondents from the 25-34 age range. Additionally, most of the survey respondents came from the “industry” QH SH group, however, the “academic” QH SH group also supplied the second highest number of responses, followed by the “government” QH SH group.

In sum, this data provides the WPs and DSs with useful information to effectively deliver on their climate change adaptation and mitigation solutions in their bioregions, as well as to deliver overall on the project RKBs. The data from the SH survey has been distributed to the DSs and the respective WPs to input into their tasks as part of the co-creation of the DS and project tools and outputs, including or example the adaptation pathways (WP5). This survey data will feed into the knowledge resources available for the project to deliver societally relevant impact.

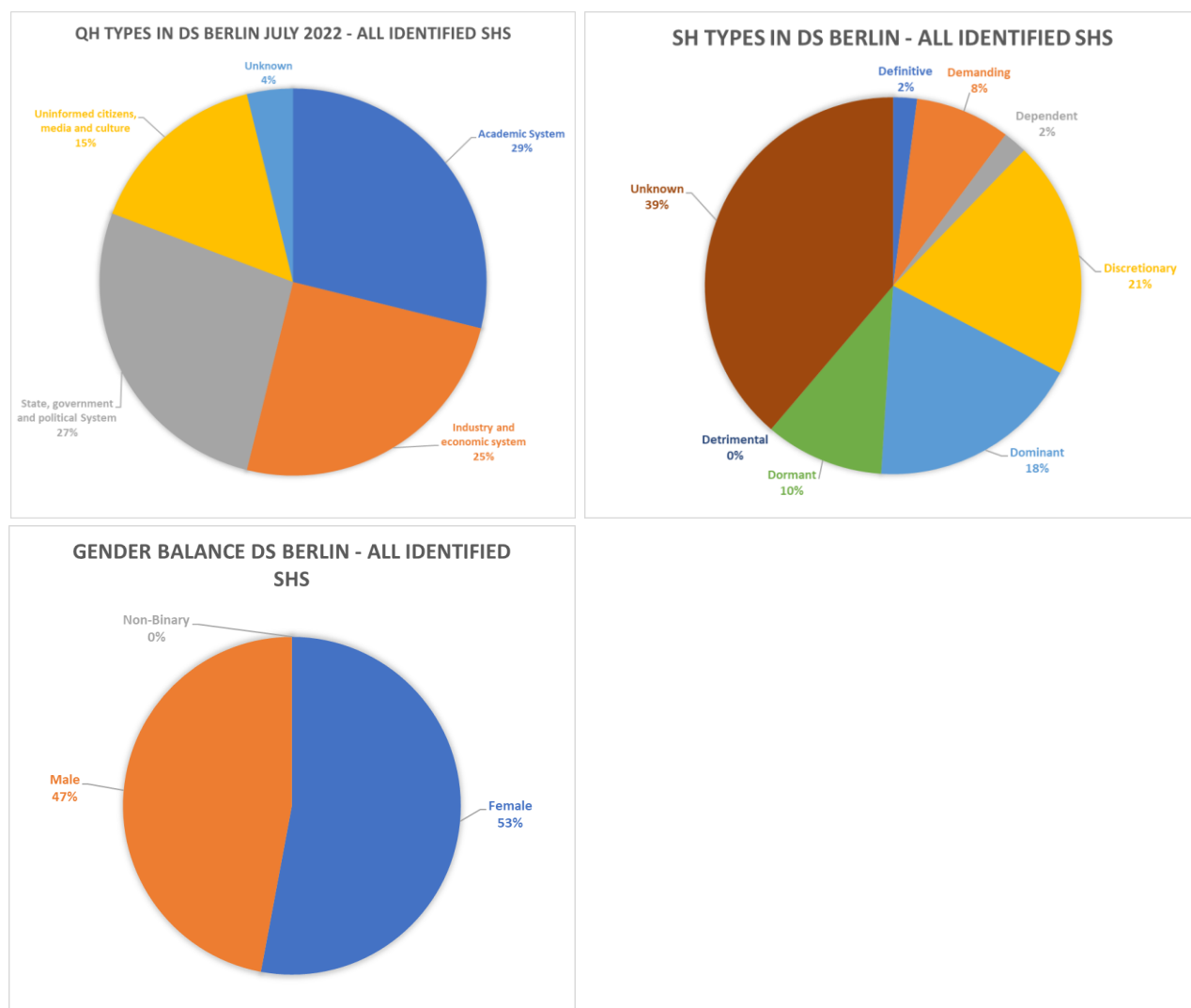


4 Stakeholders mapping and stakeholder analysis results

This chapter includes, per each DS and all identified SHs, pie charts of the QH SH balances and types, the DS internal assessment results based on Mitchell et al. (1997) (presented in Chapter 2), and the gender balance. The DS SH registers are not included in this deliverable, as they contain sensitive information about the DS SHs. See Annex 2 for a list of organisations for each DS per QH. WP1 and WP7 have advised DSs to continue to fill any gaps in SH groups and categories to ensure a balanced approach.

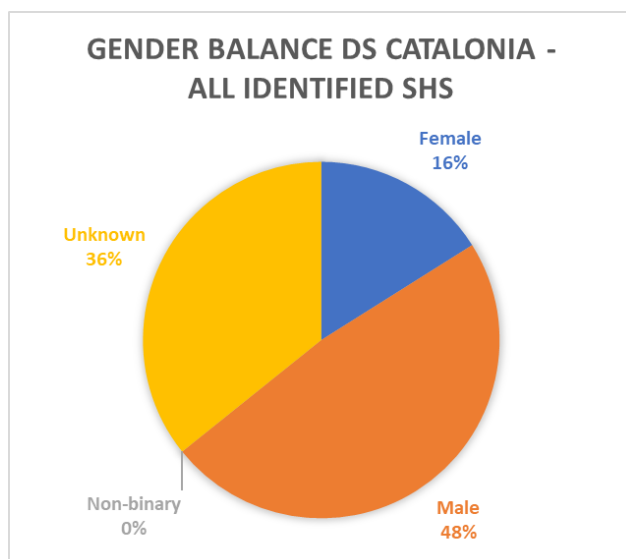
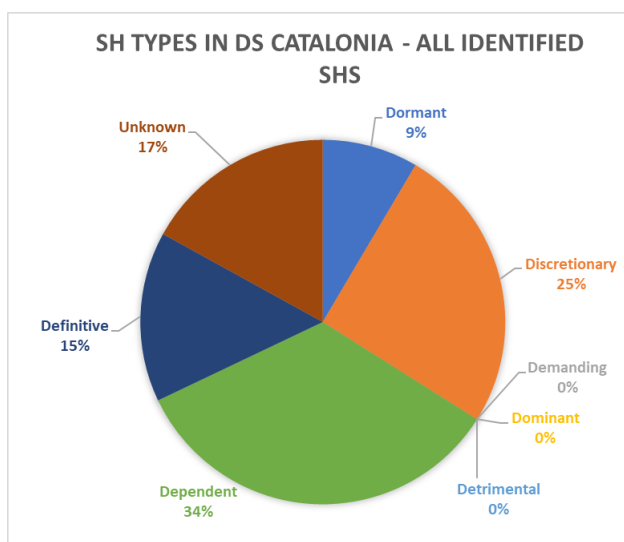
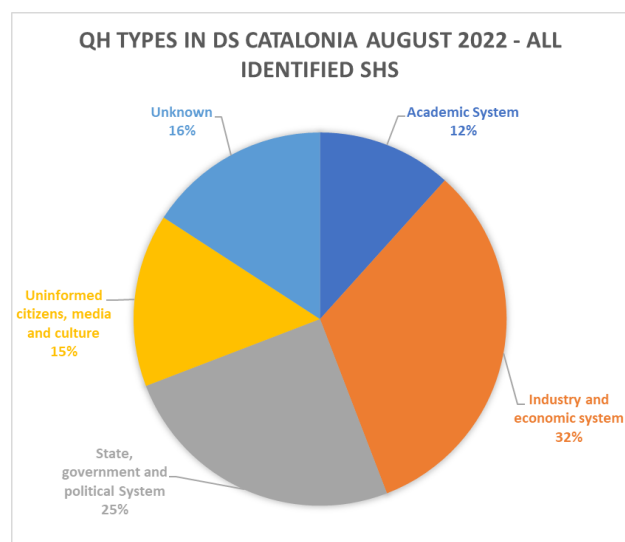
4.1 DS1 Continental – Berlin-Brandenburg

In DS1, QH SH types are balanced, with fewer in the “Uninformed citizens, media and culture” category. The DS should aim to bridge this gap over the course of the project. In terms of the power, urgency and legitimacy, many of the SHs in DS1 were assessed as “unknown”. This is because DS partners did not know the SH directly and therefore could not assess them, although these SHs are categorized as relevant to the DS. Most of the SHs assessed are deemed “Discretionary” (possess legitimacy but no power or urgency) and “Dominant” (possess power and legitimacy, but not urgency). The DS will have to pay attention to the Dominant SHs and keep them actively updated and involved as they have a certain authority in the DS and can act on legitimate claims. For the Discretionary SHs, the DS should keep them informed. Gender is balanced in DS1, with 53% males and 47% females, but further analyses could be done to ensure gender balance across functions and categories of SHs.



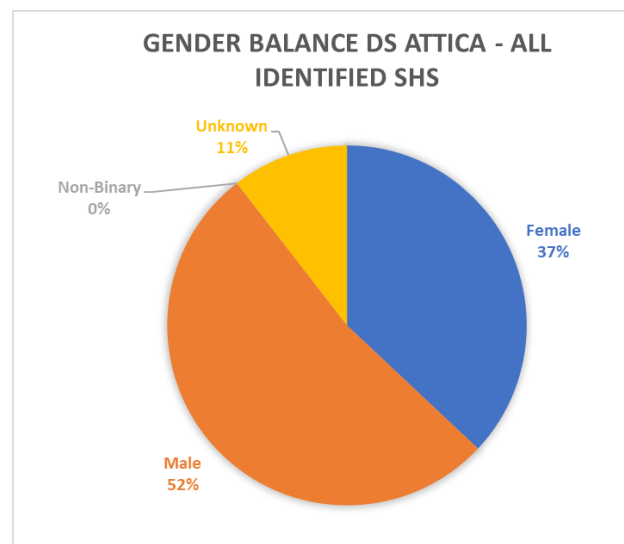
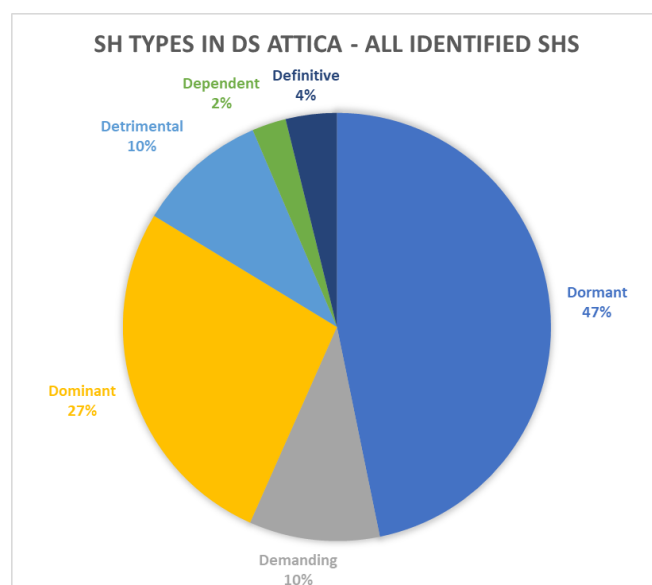
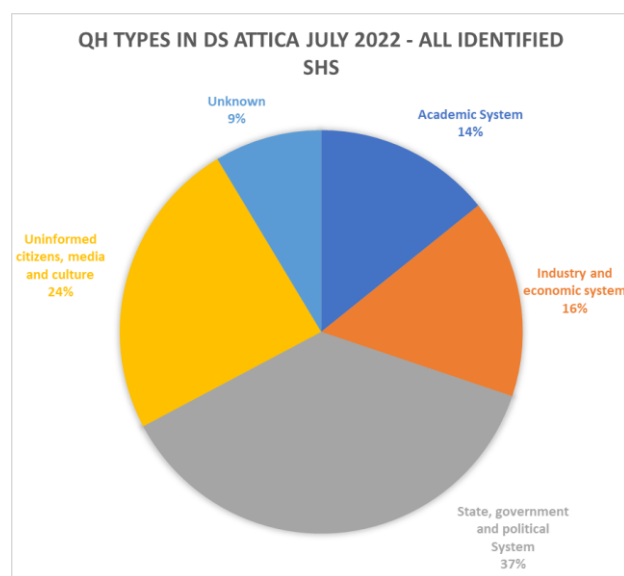
4.2 DS2 Coastal – Catalonia

In DS2, the QH SH group “Industry and economic system” has a higher percentage than the rest, followed by “State, government and political system”. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, most of the SHs assessed are deemed “Dependent” (possess legitimacy and urgency) and “Discretionary” (possess legitimacy, but no power or urgency), therefore the DS will have to pay attention to the Dependent SHs and keep them actively updated and engaged as despite not having any power, they have urgent and legitimate claims (e.g. citizens, tourists, etc.) and can easily find ways to act upon them and influence the DS activities. For the Discretionary SHs, the DS should keep them informed. Gender distribution in DS2, is 48% male and 16% females. 36% of SHs were unknown. The DS should pay particular attention to striking a gender balance across all SH groups and functions and SHE activities.



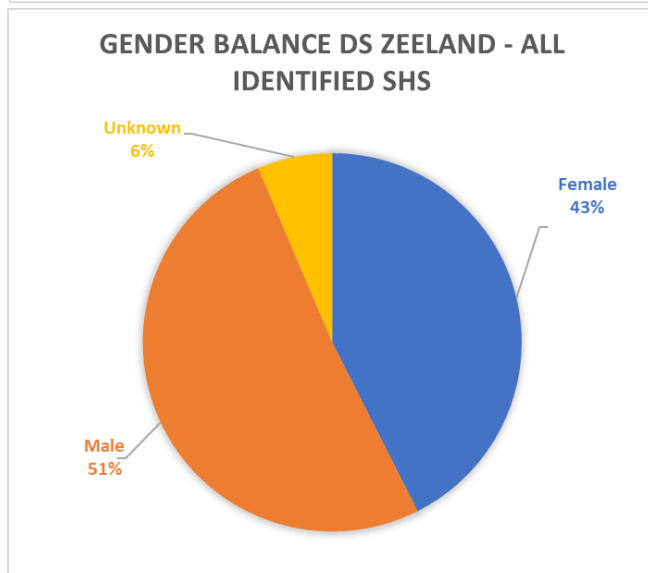
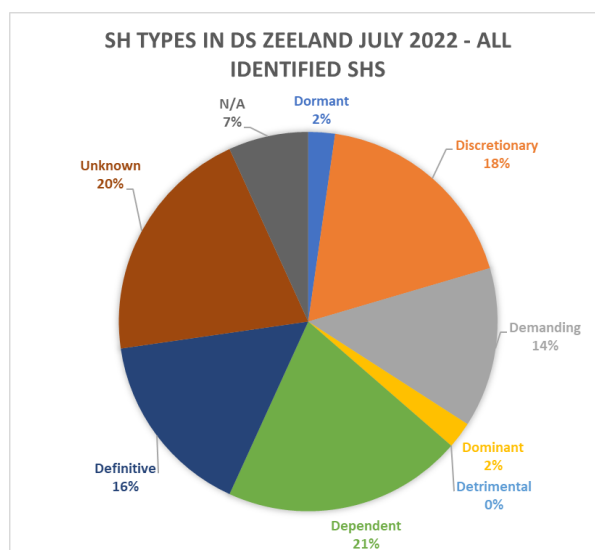
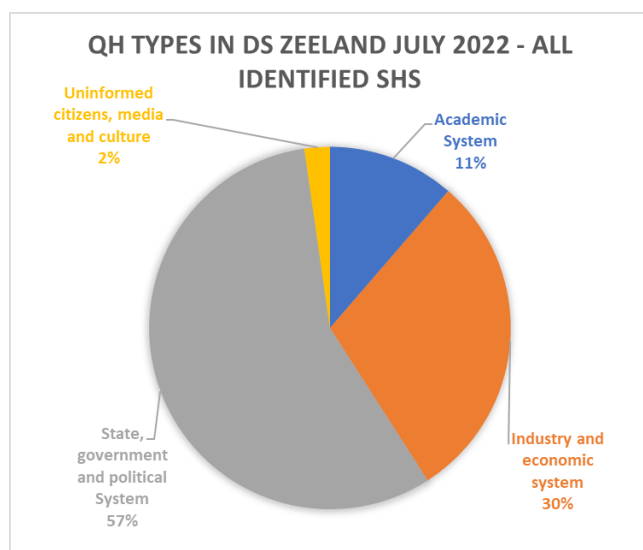
4.3 DS3 Mediterranean – Attica

In DS3, the QH SH group “State, government and political system” has a higher percentage than the rest, followed by “Uninformed citizens, media and culture”. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, most of the SHs assessed are deemed “Dormant” (possess only power) and “Dominant” (possess power and legitimacy). One can perhaps infer that all the SHs from the “State, government and political system” possess these attributes, and hence why the SH types are skewed as such. Therefore, this DS will need to pay attention to the “Dominant” SHs as they can have an assured influence on the DS and its objectives and implementation. The Dormant SHs should be kept informed, as they may change quickly to possessing another attribute which could then greatly affect the DS and its goals. Gender distributions in DS3 is 52% male SHs and 37% females, and 11% unknown SHs.. The DS should pay particular attention to striking a gender balance across all SH groups and functions and SHE activities.



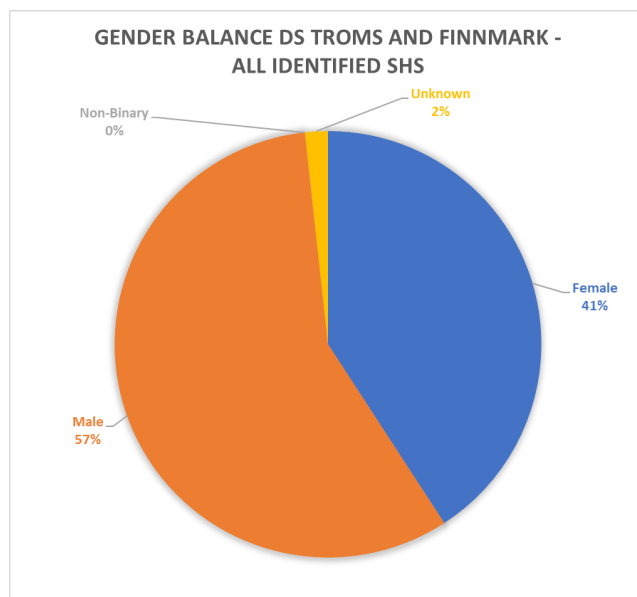
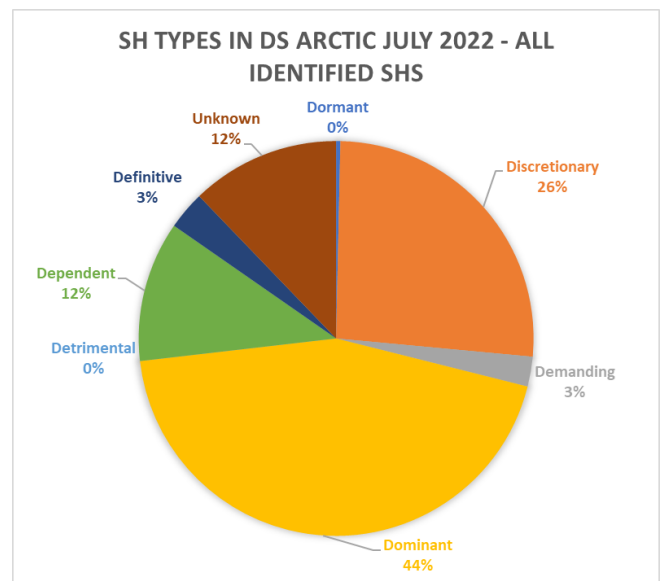
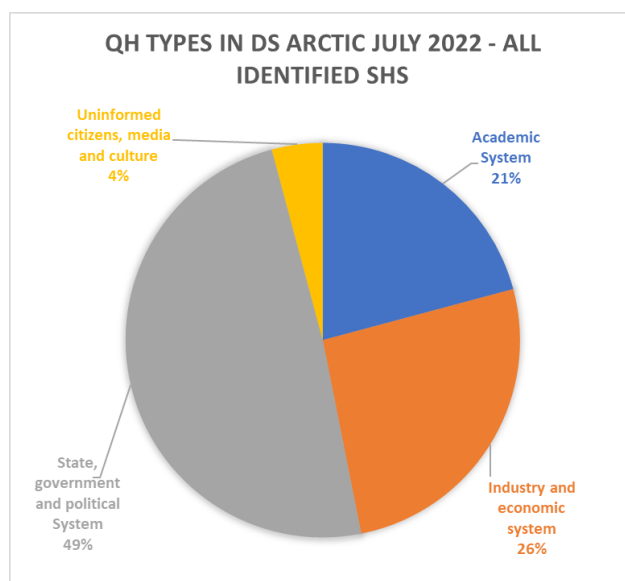
4.4 DS4 Atlantic - Zeeland

In DS4, the QH SH group “State, government and political system” has the highest percentage, followed by “Industry and economic system”. The “Uninformed citizens, media and culture” SH group only has 2% which is low. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, the SHs are balanced among Definitive, Discretionary, Demanding and Dependent SHs. There are very little Dominant or Dormant SHs. 20% of the SHs in DS4 were assessed as “unknown”. This is because DS partners did not know the SH directly and therefore could not assess them, although these SHs are categorized as relevant to the DS. Therefore, this DS will need to pay attention to the variety of types of SHs and engage and inform them accordingly, and keep in mind that SHs might change types over the course of the project. Gender distribution in DS4 is 51% male SHs and 43% females, and 6% unknown SHs. The DS should continue to ensure a gender balance across all SH groups and functions and SHE activities.



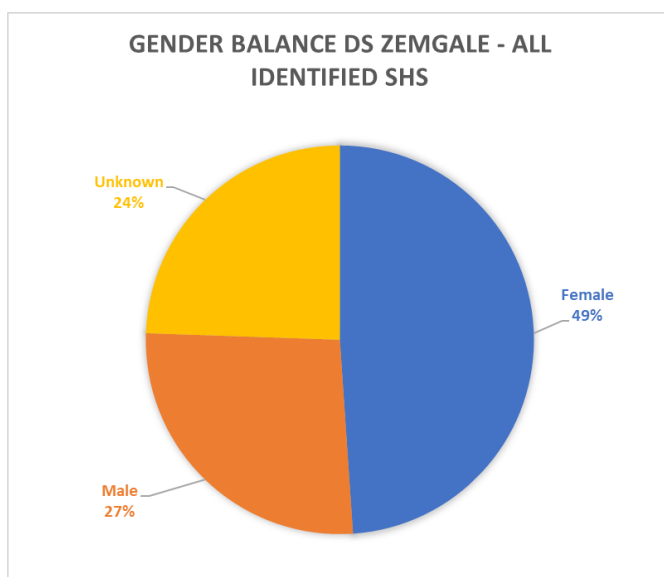
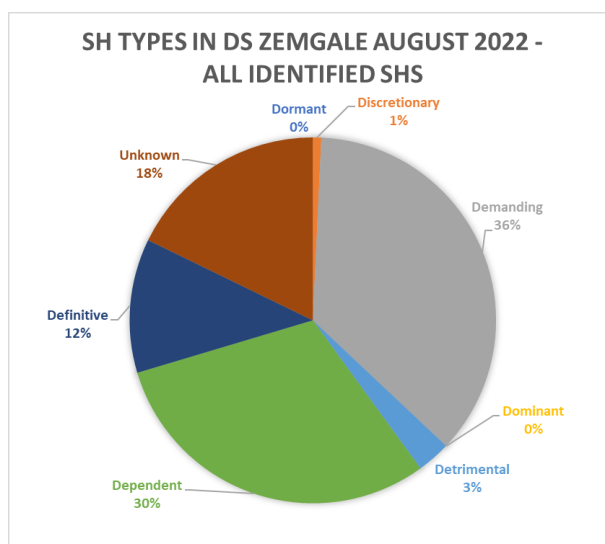
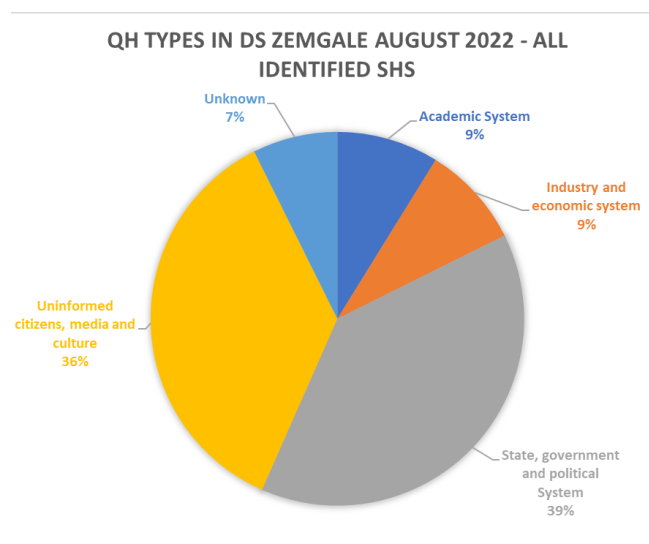
4.5 DS5 Arctic – Troms and Finnmark

In DS5, the QH SH group “State, government and political system” has the highest percentage, with 49% of the SHs categorized as such, followed by “Industry and economic system”. The “Uninformed citizens, media and culture” SH group only has 5% which is very low. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, most SHs were categorized as “Dominant” (possess both power and legitimacy, but no urgency), followed by “Discretionary” (possess only legitimacy). DS5 will need to keep the Dominant SHs actively engaged and informed, as they can have an influence on the DS. The Discretionary SHs should be kept informed of all DS activities as well. The DS should also keep in mind that SHs might change types over the course of the project, and to engage them accordingly. Gender distribution in DS5 is 57% male SHs and 41% females, and 6% unknown SHs. The DS should continue to ensure a gender balance across all SH groups and functions and SHE activities.



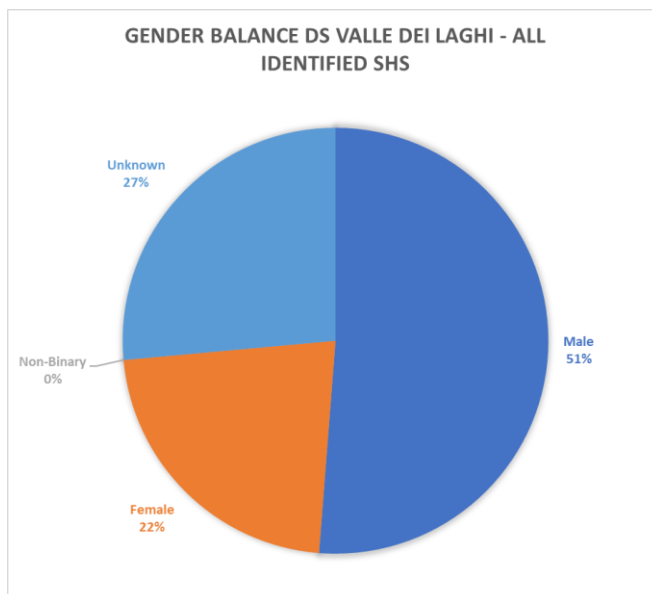
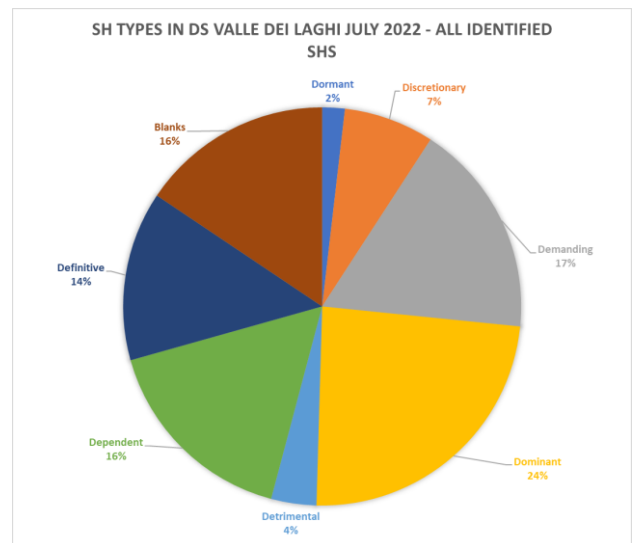
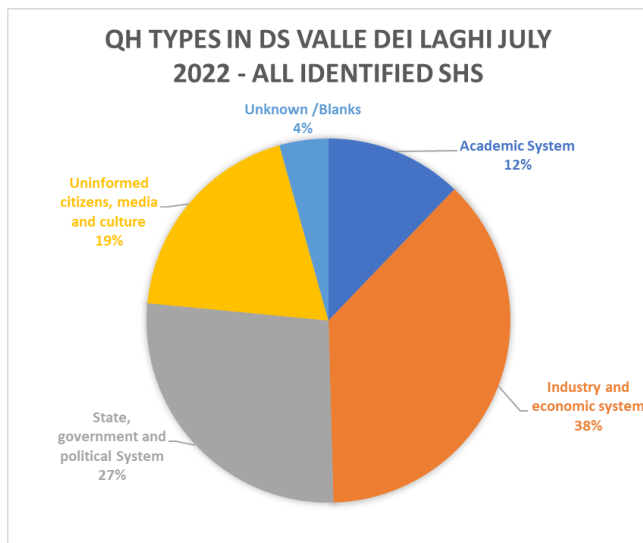
4.6 DS6 Boreal – Zemgale

In DS6, the QH SH group “State, government and political system” and “Uninformed citizens, media and culture” are fairly balanced, then “Industry and economic system and “Academic system” are relatively low with 9% each. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, most SHs were categorized as “Demanding” (possess only urgency), followed by “Dependent” (possess urgency and legitimacy). 18% of the SHs in DS6 were assessed as “unknown”. This is because DS partners did not know the SH directly and therefore could not assess them, although these SHs are categorized as relevant to the DS. DS6 will need to keep the Demanding SHs actively informed, and keep aware of any potential conflicts that could arise. The Dependent SHs should be kept engaged and informed of all DS activities as well, as their claims are both urgent and legitimate. The DS should also keep in mind that SHs might change types over the course of the project, and to engage them accordingly. 49% of the SHs identified as female, and 27% as male, with 24% unknown. This DS needs to ensure gender balance can be achieved in all DS SHE activities as they begin to identify those unknown ones and new ones over the course of the project.



4.7 DS7 Mountain – Valle dei Laghi

In DS7, the QH SH groups “Industry and economic system” and “State, government and political system” have the highest percentages. The “Academic system” SHs are relatively low with 12%. The DS should aim to bridge the gaps in QH SHs over the course of the project. In terms of the power, urgency and legitimacy, SHs are fairly balanced across the different types, with “Dominant” (possess both power and legitimacy) having the highest percentage with 24%. DS7 will need to keep the Dominant SHs actively engaged and informed, as influence over the DS goals and objectives is assured as these SHs possess a certain authority and are able to act on their legitimate claims over the DS activities. The DS should also keep in mind that SHs might change types over the course of the project, and to engage them accordingly. Gender is unbalanced in this DS, with 51% of the SHs identified as male and only 23% as female, and 27% unknown. This DS will need actively work on balancing gender overall, and in all DS SHE activities.



5 Stakeholder Engagement, Co-Creation and Communications Plans: Theories of Change and Roadmaps

As mentioned previously, the ToCs were used to help the DSs firstly understand their DS activities and ambitions, and then to help them identify SHs. The ToCs are to be used as a “living document”, i.e. that they can be updated over time as the DS activities emerge and adapt and new insights are acquired from working with SHs. The SHE, co-creation and communications roadmaps coordinated by WP1 and WP7 (hereinafter referred to as just roadmaps) are to be used as an additional layer to the ToC, where specific engagement, co-creation and communications activities are listed and linked to the ToC to see which SHE, co-creation and communications activities are needed to support delivering on the ToC activities and ambitions. These were then created by the DSs based the information they gathered from the SHs, as their activities and outcomes were fine-tuned in their ToCs. In sum, the roadmaps are a timeline of the engagement, co-creation and communications activities required to support the DSs in the effective planning and coordination of the ToC activities. The roadmap activities will then be detailed further in “[Engagement, co-creation and communications activity planning document](#)” which was included in the [3rd guidance document](#) that was sent out to DSs in 2022 to support them with tools and resources for their engagement, co-creation and communication journey with their local SHs.

The roadmaps in the below sections per each DS are limited in detail and are based on what the DSs aspire to achieve at this moment. However the roadmaps as mentioned before are a living document and will change and become more detailed over time. the current roadmaps were produced by the DSs between November 2022-January 2023. They included engagement, co-creation and communication activities that they can foresee in the coming years for their specific DS tasks. For the longer term, the activities may be quite vague as the DSs will only be able to accurately plan those activities as the project evolves, and the roadmaps will be updated over time with based on the project and DS tasks progress. This will also eventually include the SHE needs of WPs (1.3, 2, 3, 5) for project level outputs. The D1.2 (Co-creation process in DSs) will provide an updated version of the DS roadmaps and ToCs in M24.

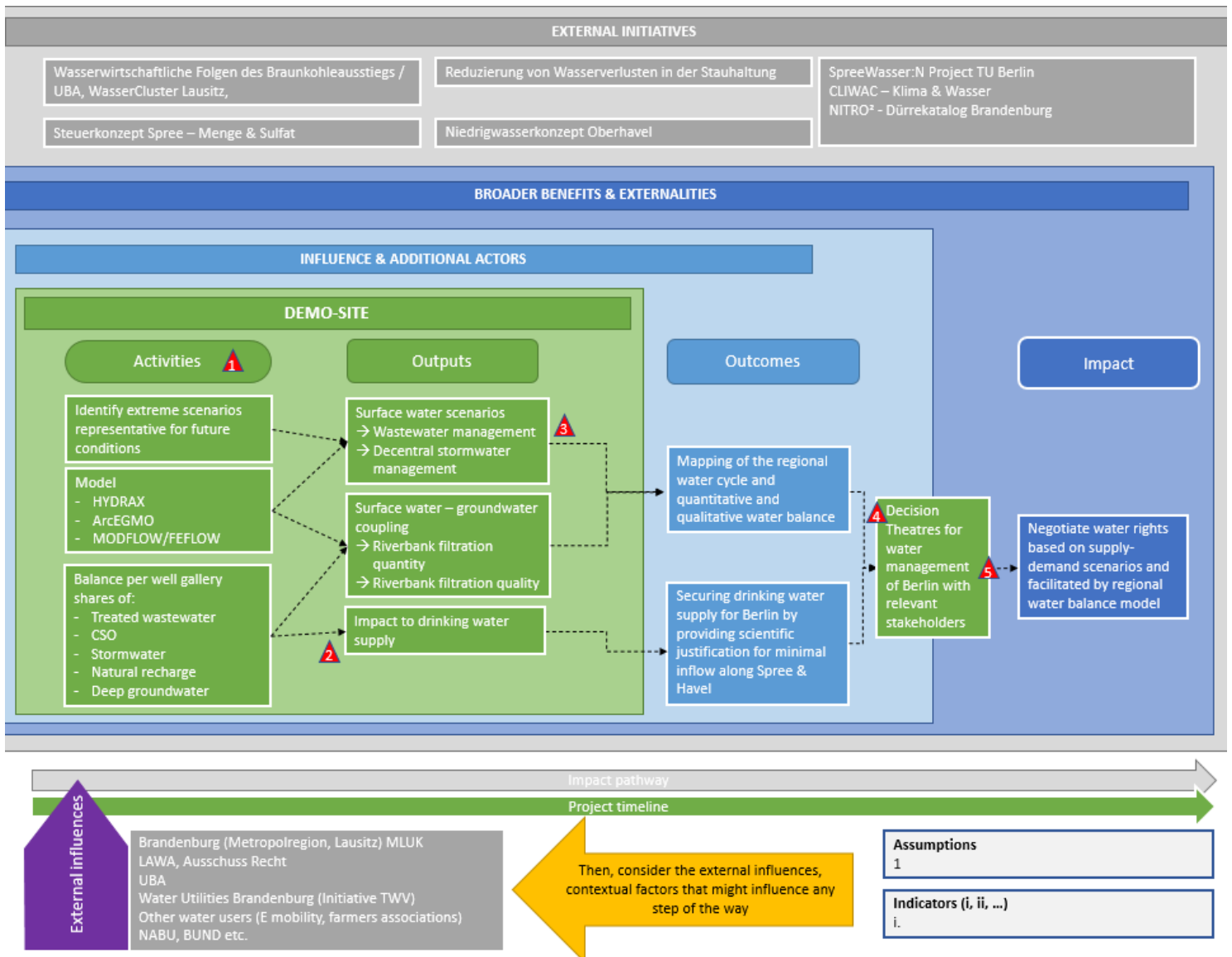
This flexible and adaptable approach of elaborating the DS ToCs and the roadmaps over time enables the DS to actively co-create societal relevance in their activities with the SHs. This takes complexity into consideration, hence the use of a ToC to depict the various potential pathways towards overall DS impact, and the embedding of engagement moments in the ToC.

Each section per DS below includes the DS last updated ToC and their roadmaps. The ToCs and roadmaps are interlinked by the numbers or letters of the ToC activities in the roadmaps. [In Guidance 1 and 3](#) referred to previously, we provided the DSs templates of both the ToCs and roadmap, but the DSs were able to choose how to design both as long as it contained the key elements (ToC activities, roadmap engagement activity title, date, ToC link, etc.).



5.1 DS1 Continental – Berlin-Brandenburg

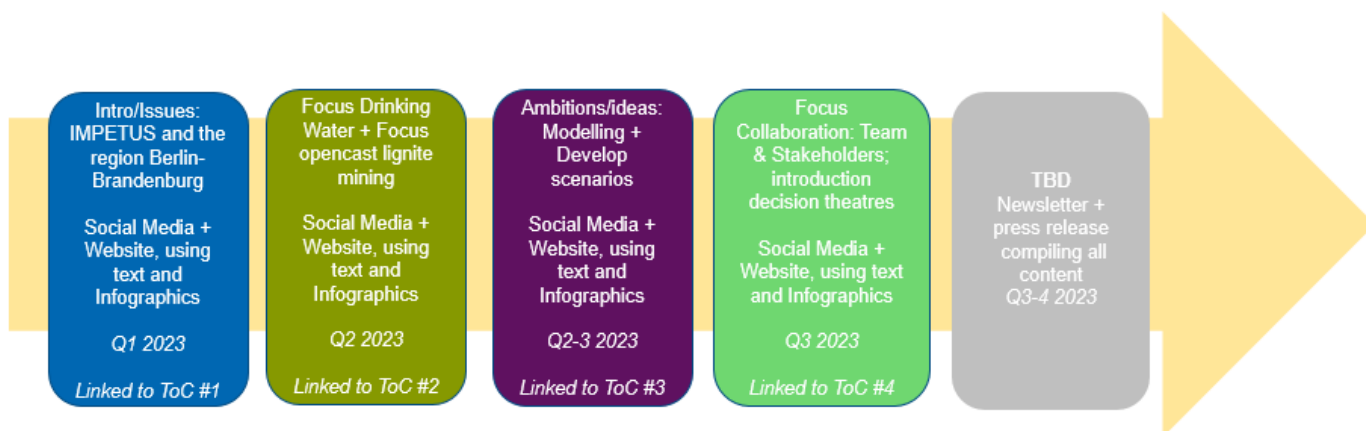
Theory of Change



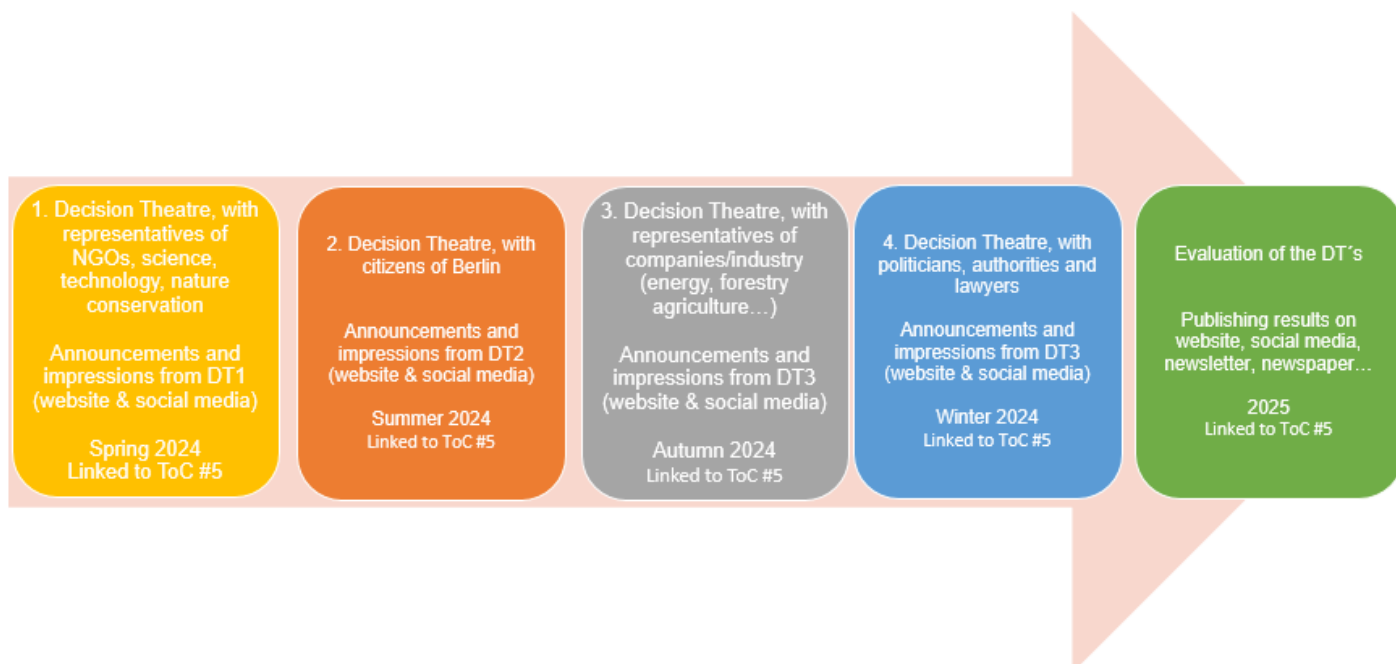
Roadmap(s)

DS1 has made 2 roadmaps, signifying the activities that are required to build-up their main SHE activity which are the decision theatres, and during and after the decision theatres. Decision theatres are a specific format of SHE, whereby SHs discuss, learn and co-create knowledge within a “theatre” style setting, with the use of digital tools to facilitate the engagement and collaboration. DS1 also further detailed each step of their roadmap in subsequent slides, but we do not include them here as the below roadmaps showcase the overarching activities in sufficient detail.

Activities roadmap before decision theatres (2023, KWB)



Roadmap decision theatres (2024-2025, GCF)

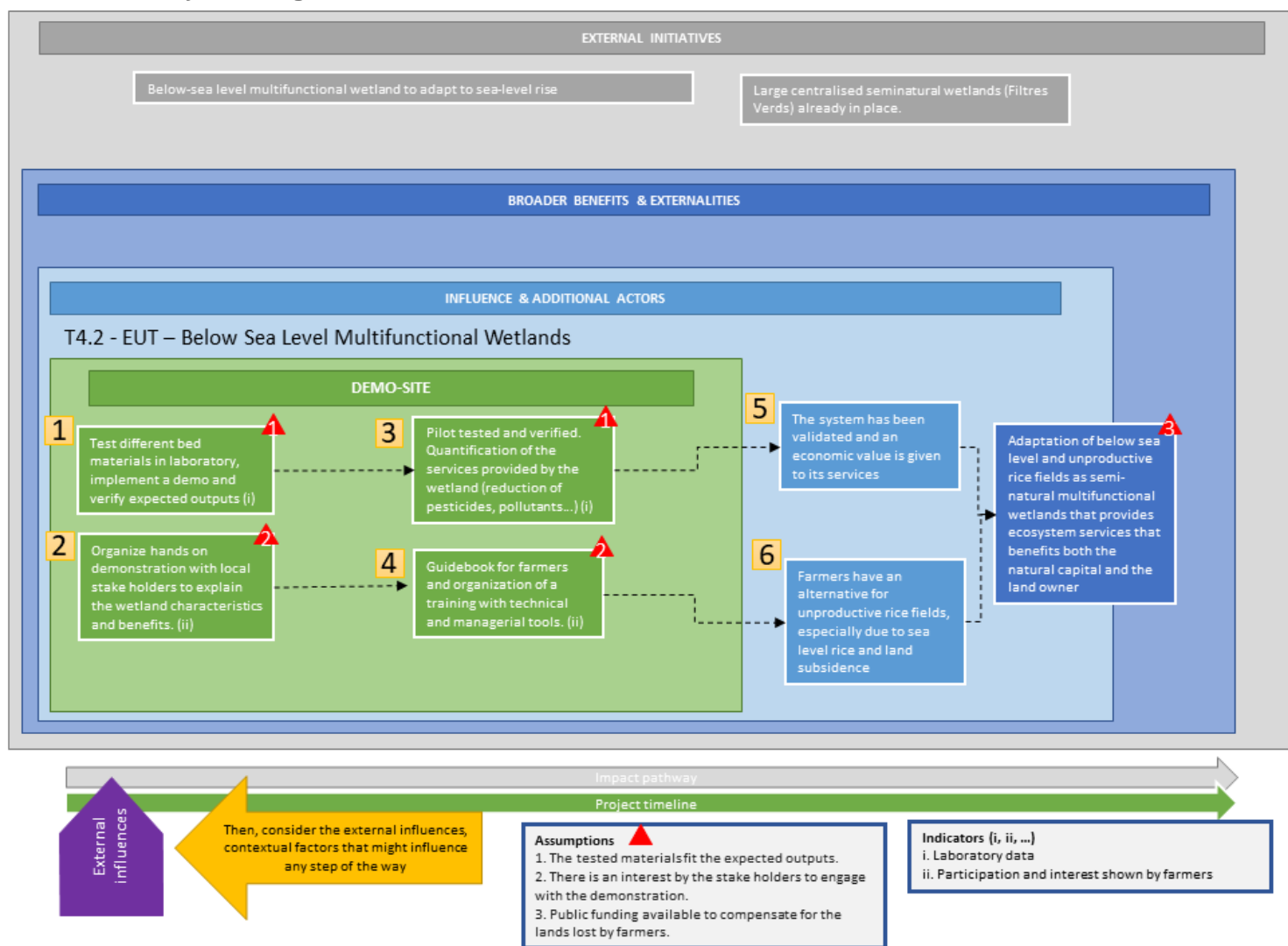


5.2 DS2 Coastal – Catalonia

DS2 Catalonia has 9 sub-tasks on a variety of climate related topics, which are managed by different partners in the DS. As such, each DS partner has made their own ToC and roadmap for each task. Each of the ToCs and roadmaps for these tasks can be found below per partner. The DS2 Lead, Eurecat, will ensure that all SHE activities will be coordinated among the DS partners to reduce any potential SHE overlap or SH fatigue.

- Eurecat Tasks:
 - 4.2 Below sea level multifunctional wetlands
 - 4.5.1 Decentralized hybrid fit-for-use water reclamation systems for increasing water availability
 - 4.6 Sediment transport in deltas
 - 4.8.1 Improving bathing water quality after extreme storm events
 - 4.8.2 Increasing drinking water plants' resilience to water-borne pathogens
- University of Girona Task: 4.3 Sand dune restoration and monitoring to prevent coastal erosion
- Lobelia Earth Task: 4.13 Development of satellite-based coastal monitoring system
- IUCN Task: 4.9 Changes in the spatial distribution of species
- URV Task: 4.22 Pursuing behavioural change for climate resilient tourism

Theory of Change Eurecat T4.2



Roadmap Eurecat T4.2

T4.2 Below-sea level multifunctional wetland to adapt to sea-level rise

Outcomes: Adaptation of below sea level and unproductive rice fields as semi-natural multifunctional wetlands that provides ecosystem services that benefits both the natural capital and the land owner



ToC links (see previous slide)

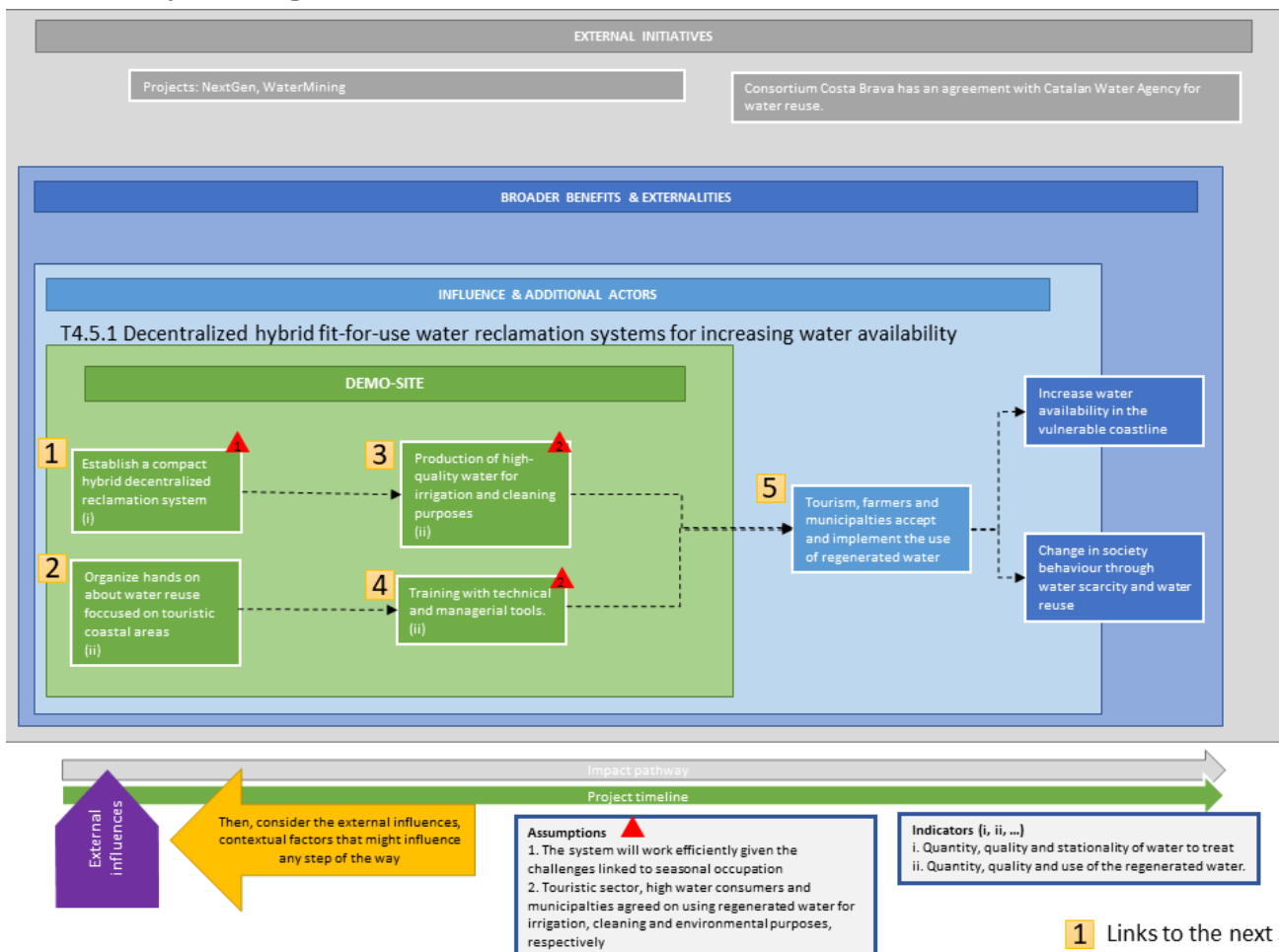
Identified key stakeholders:

Local: Rice producers, irrigation associations, land owners
Regional/National: ACA, COPATE, SEO BirdLife (NGO)

Newsletter and press release: addressed to engaged DS SH (not only the task specific SH) and other stakeholders not actively involved but show their interest

Workshops: Presentation of the work progress and open discussions with the selected SH

Theory of Change Eurecat T4.5



1 Links to the next slide



Roadmap Eurecat T4.5.1

T4.5.1 Decentralized system for water reuse

Outcomes:

- Increase water availability in vulnerable coastline areas
- Change society behaviour through water scarcity and water reuse



Identified key stakeholders:

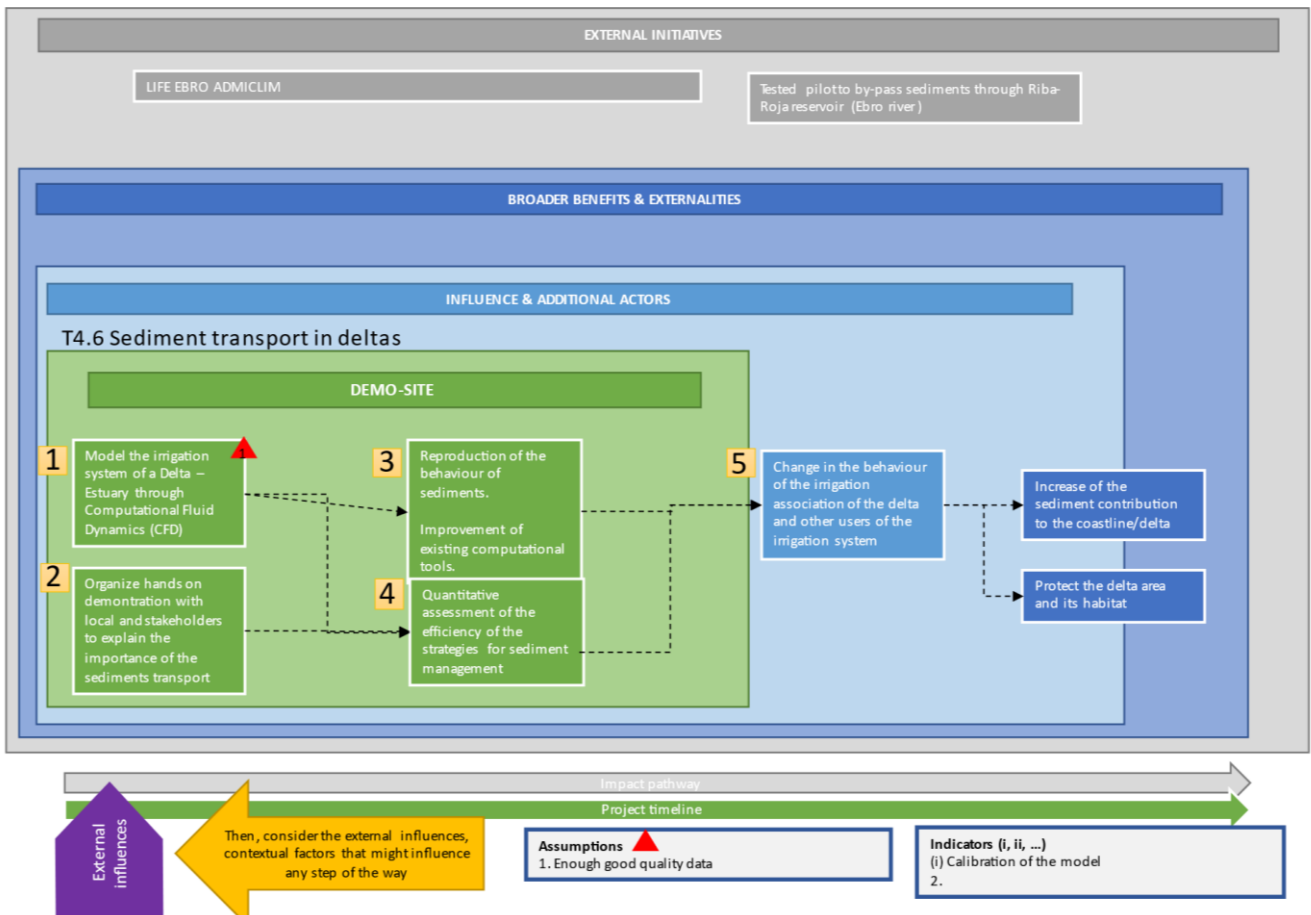
Local: Càmping Tamarit, Ajuntament Tamarit

Regional/National: ACA, Associació càmpings turisme Tarragona, Consorci d'Aigües de Tarragona, GEPEC Grup estudi i protecció ecosistemes catalans

Newsletter and press release: addressed to engaged DS SH (not only the task specific SH) and other stakeholders not actively involved but show their interest

Workshops: Presentation of the work progress and open discussions with the selected SH

Theory of Change Eurecat T4.6



Roadmap Eurecat T4.6

T4.6 Sediments transport

Outcomes:

- Management strategies of the irrigation channels to increase the sediment contribution to the Ebro's Delta



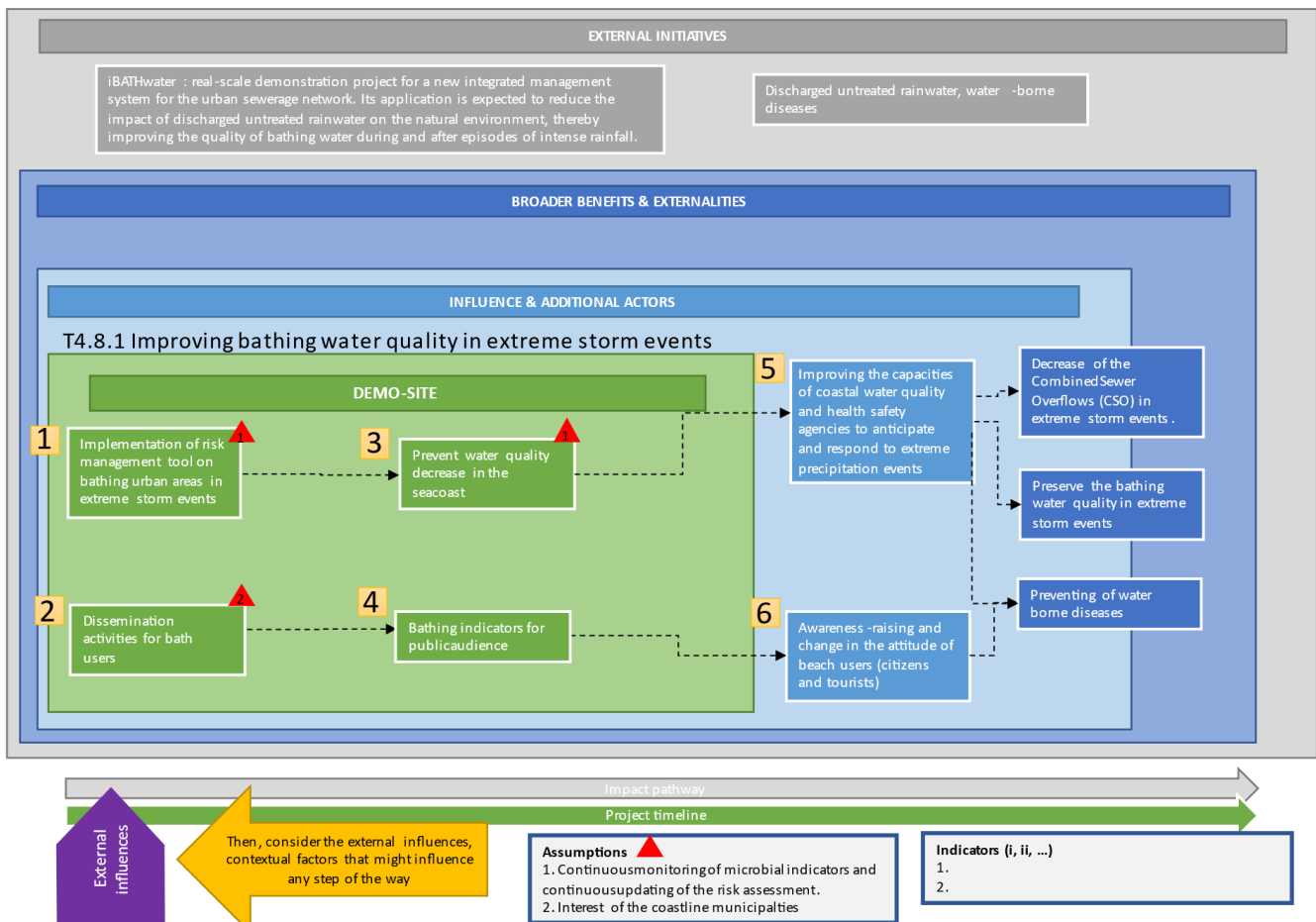
Identified key stakeholders:

Local: Cambra de comerç de Tortosa, Comunitat de regants de l'Ebre, Taula de consens del Delta de l'Ebre, Plataforma en Defensa de l'Ebre, SEO Bird Life, Campanya pels sediments, Observatori de l'Ebre, Centre Resiliència Climàtica Amposta, IRTA La Ràpita
Regional/National: ACA, Confederación Hidrográfica del Ebro, Dirección General de la Sostenibilidad de la Costa y el Mar, Servei d'Ordenació del Litoral

Newsletter and press release: addressed to engaged DS SH (not only the task specific SH) and other stakeholders not actively involved but show their interest

Workshops: Presentation of the work progress and open discussions with the selected SH

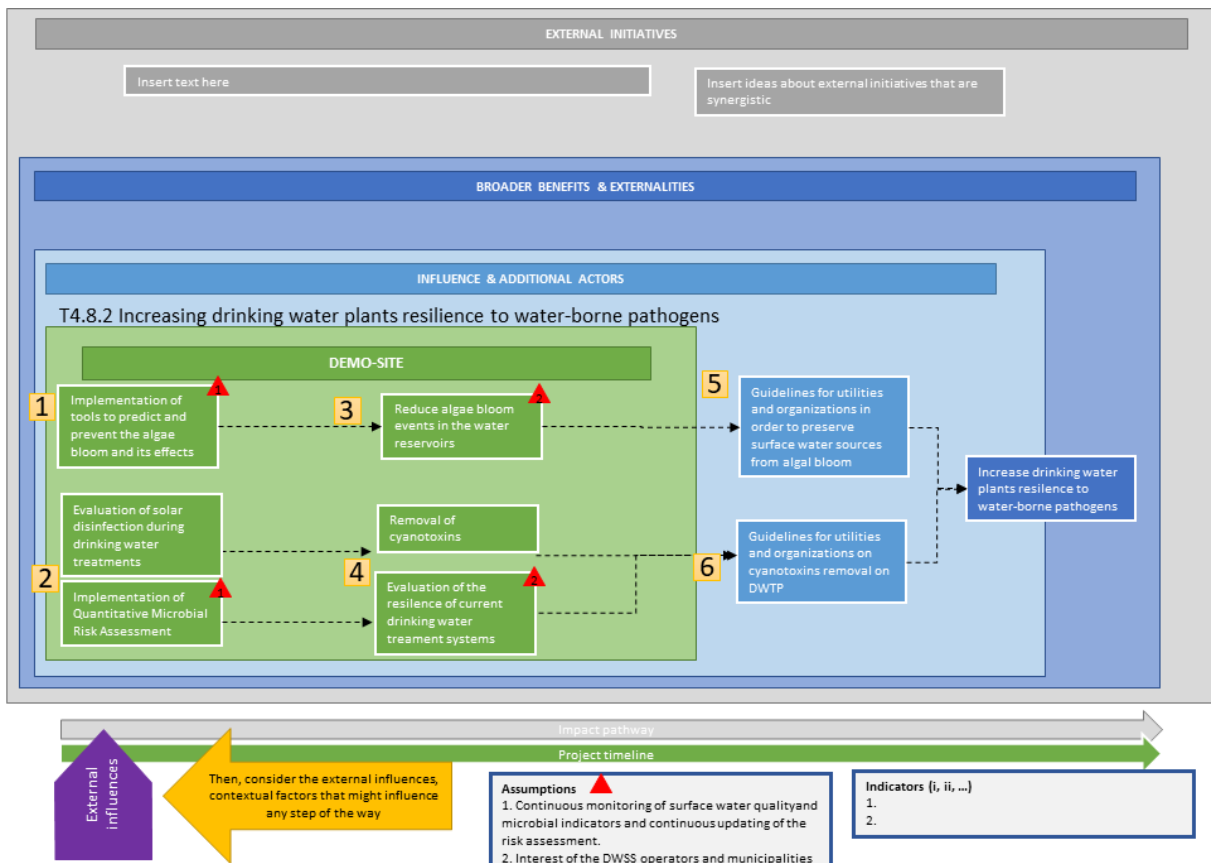
Theory of Change Eurecat T4.8.1



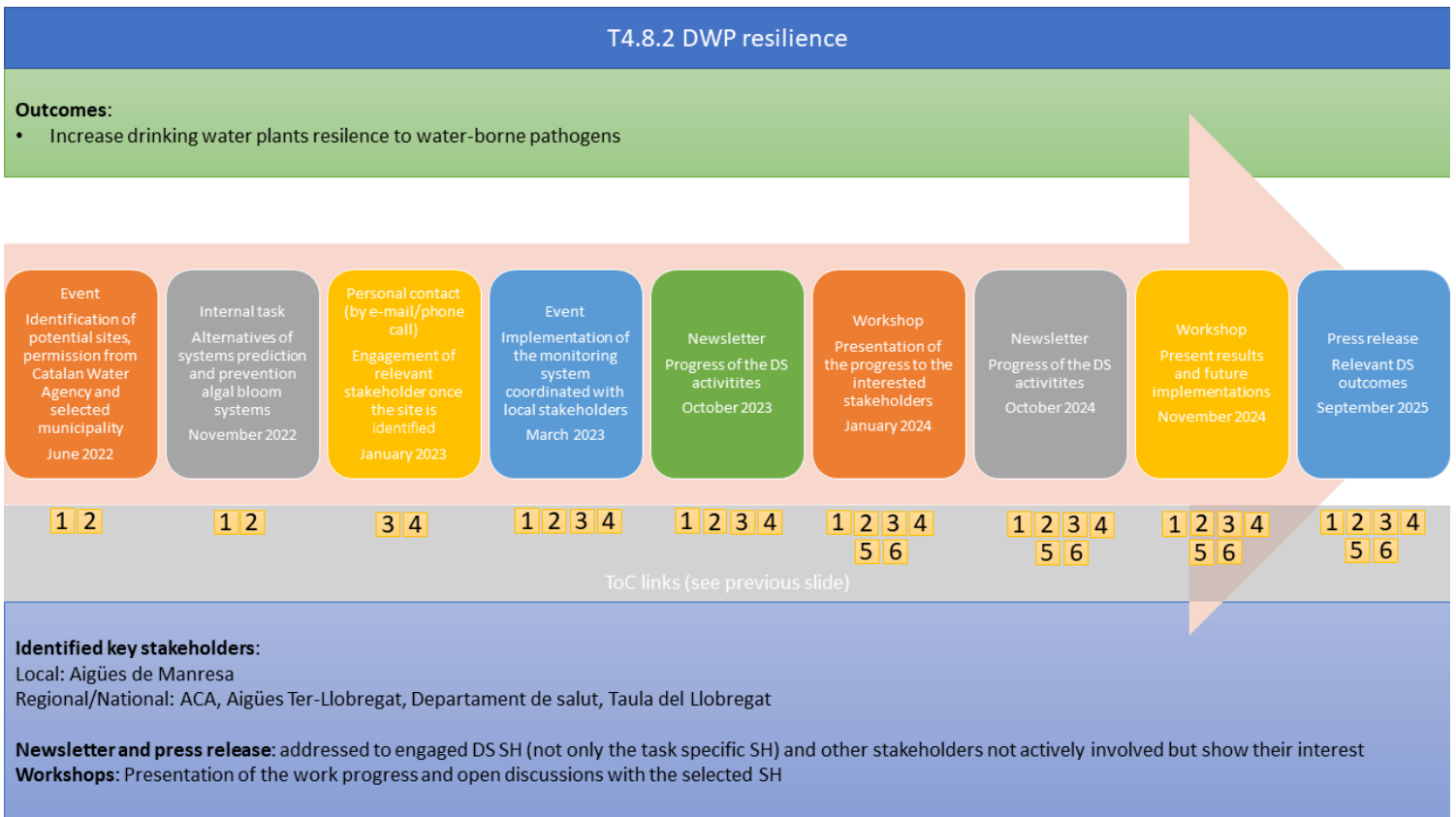
Roadmap Eurecat T4.8.1



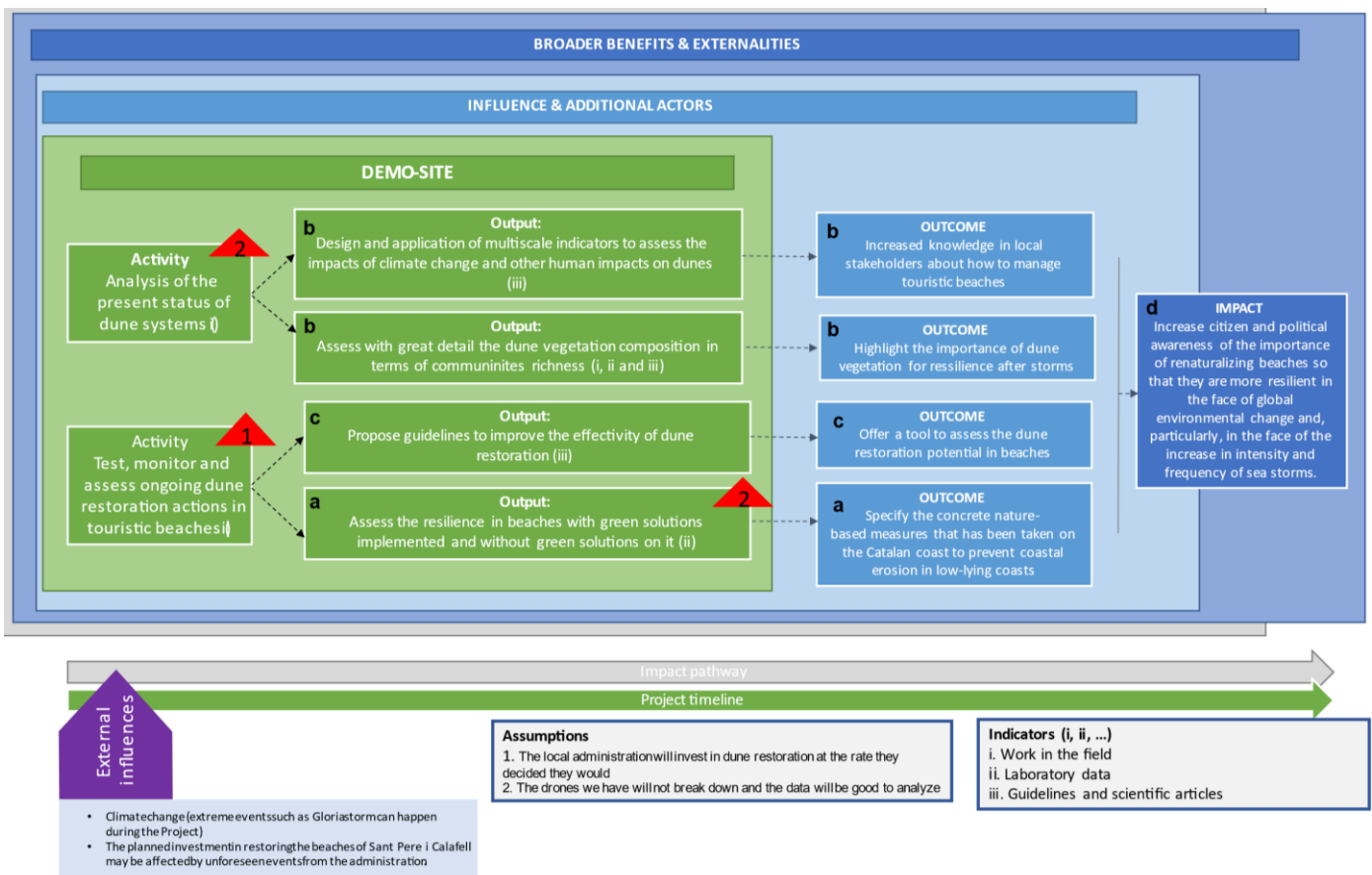
Theory of Change Eurecat T4.8.2



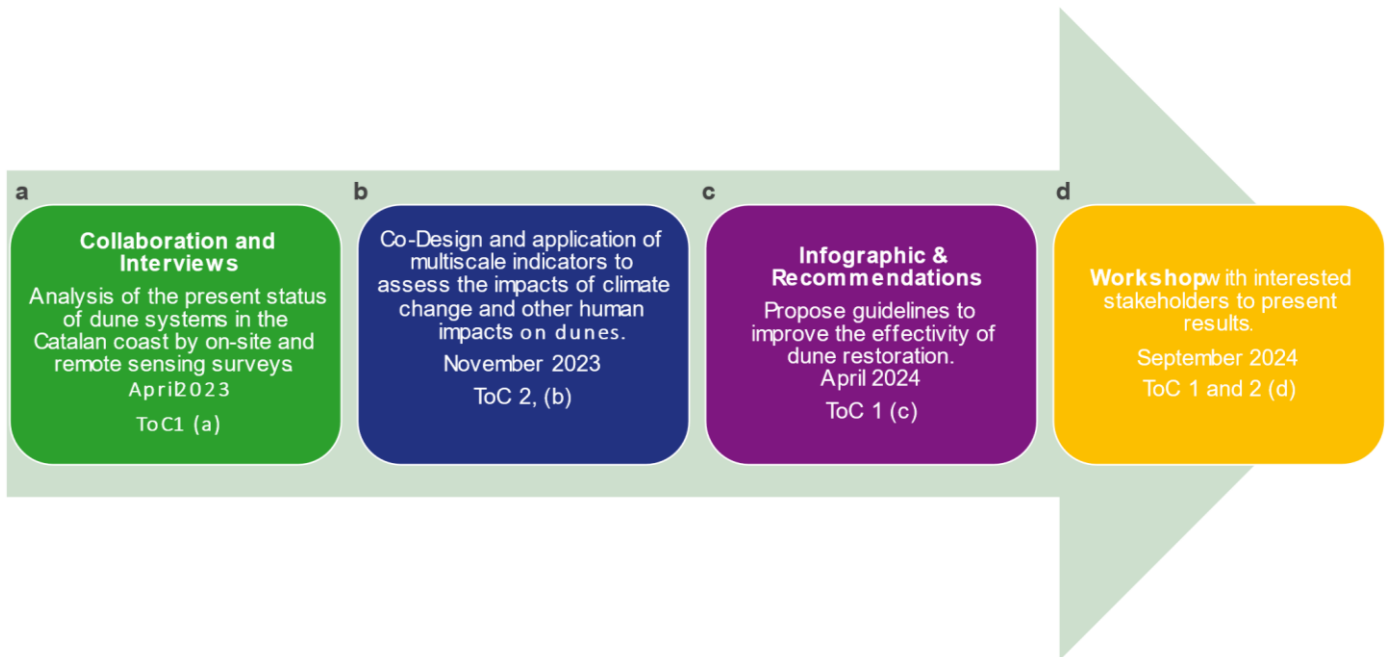
Roadmap Eurecat T4.8.2.



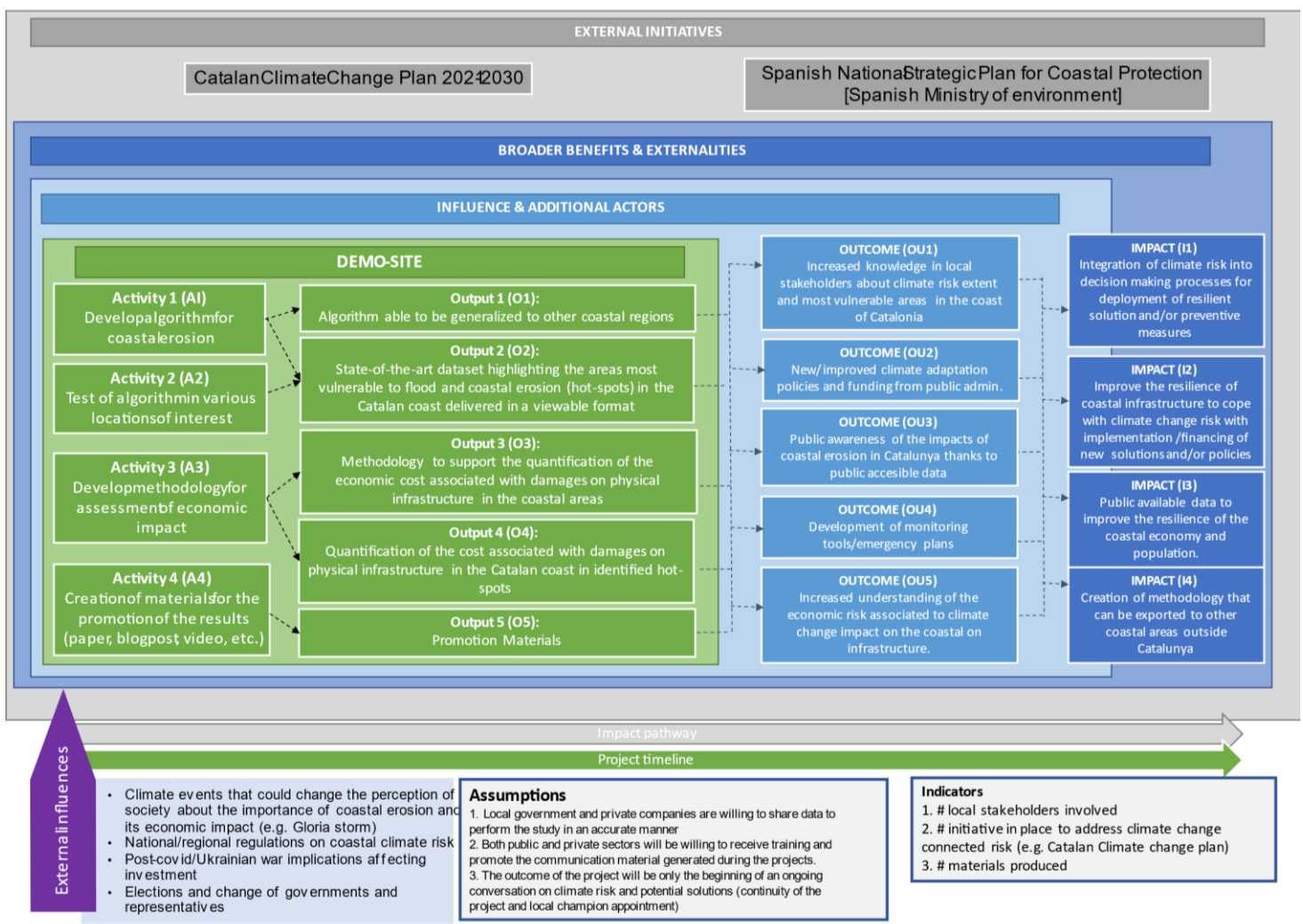
Theory of Change University of Girona Task: 4.3



Roadmap University of Girona Task: 4.3



Theory of Change – T4.13 – Lobelia



Roadmap - T4.13 – Lobelia

T4.13 - Lobelia – DS2 Catalonia

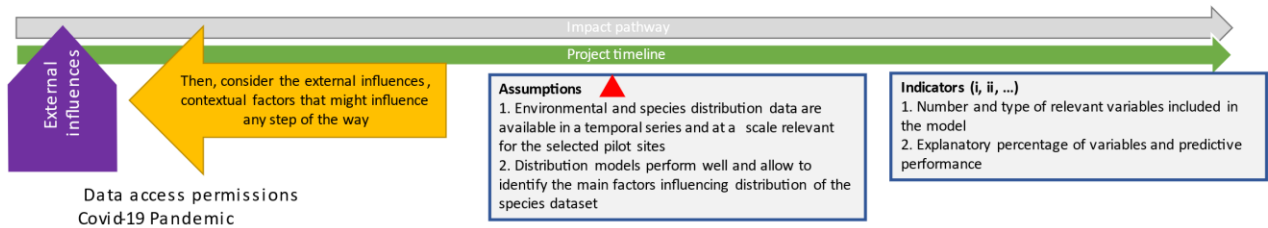
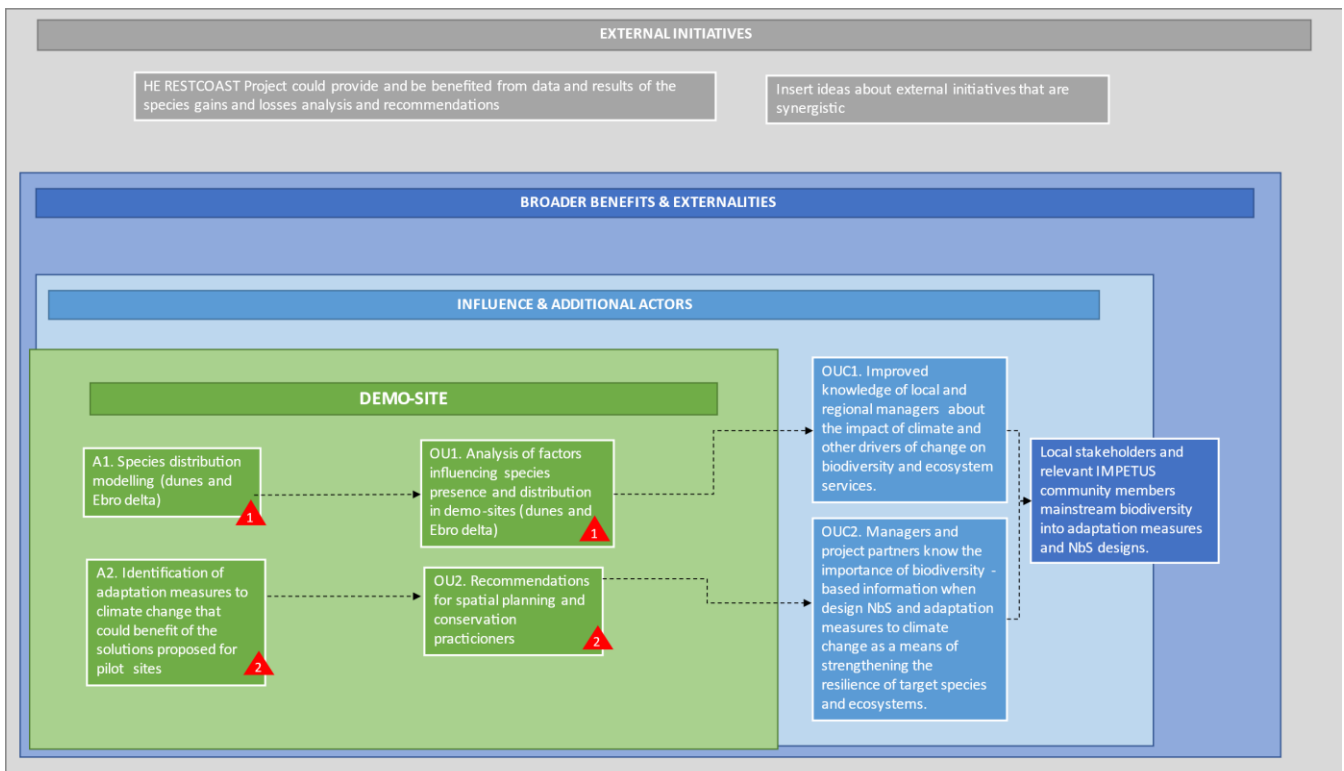


In the figure below, there are two empty squares due to the fact that Lobelia does not have any communications activities at the moment for the corresponding SHE activities in the first roadmap above.

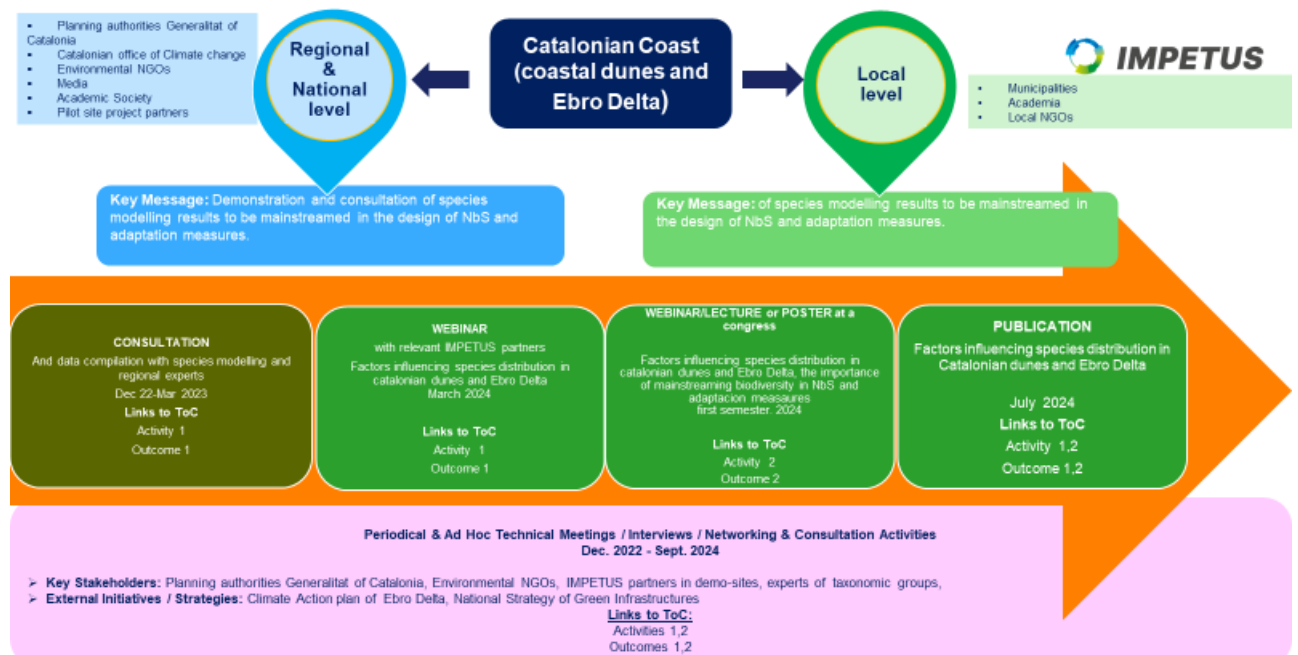
T4.13 - Lobelia – DS2 Catalonia



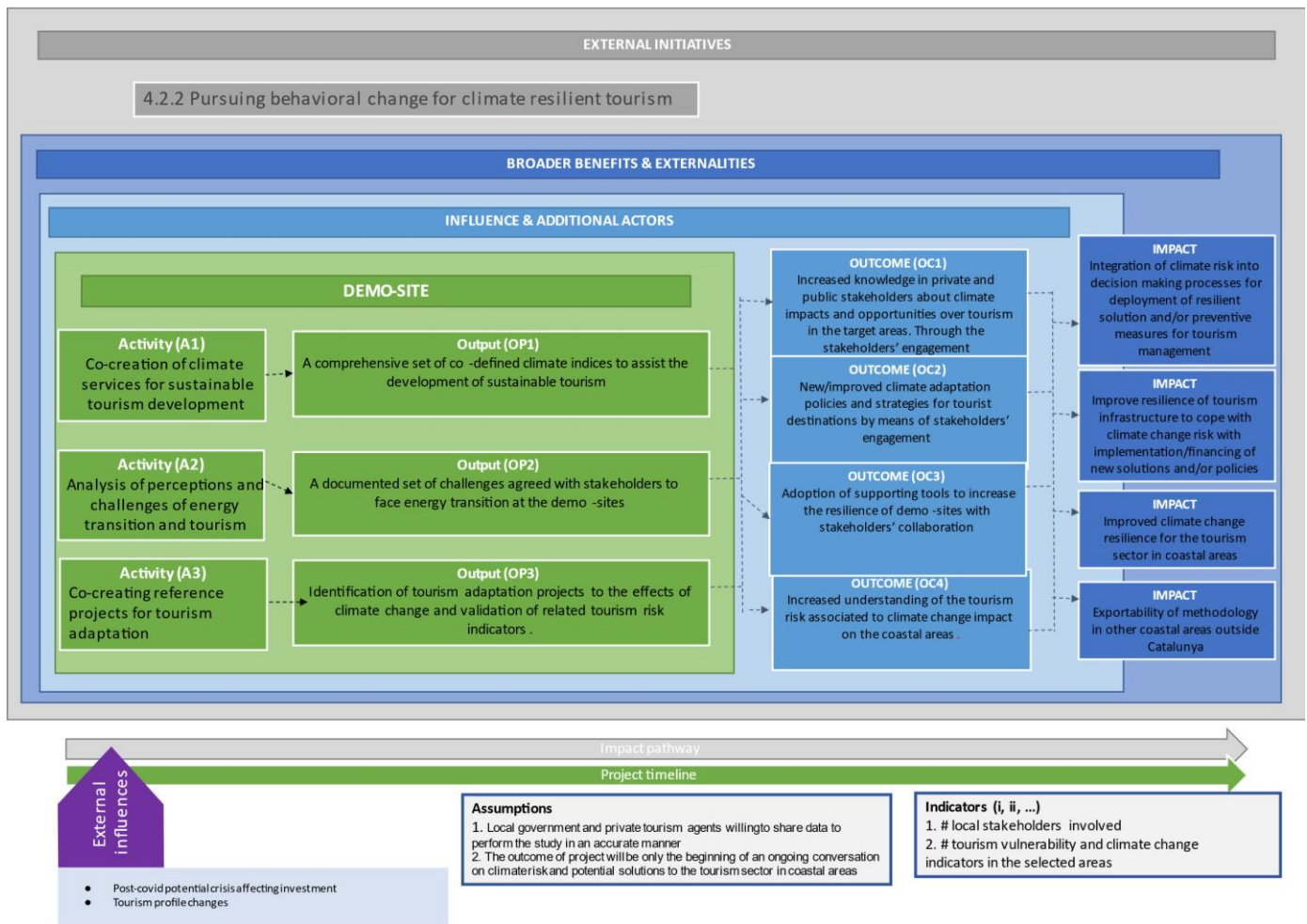
Theory of Change IUCN Task: 4.9



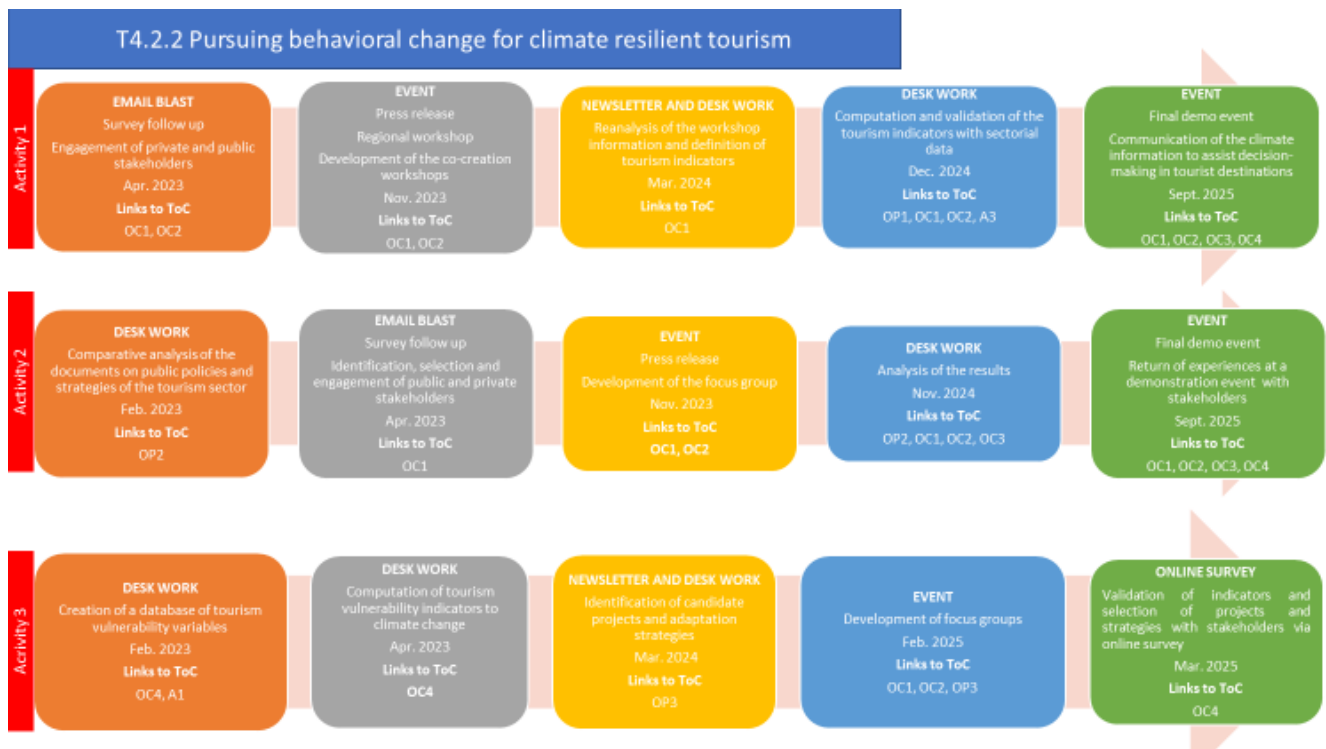
Roadmap IUCN Task 4.9



Theory of Change URV Task: 4.22



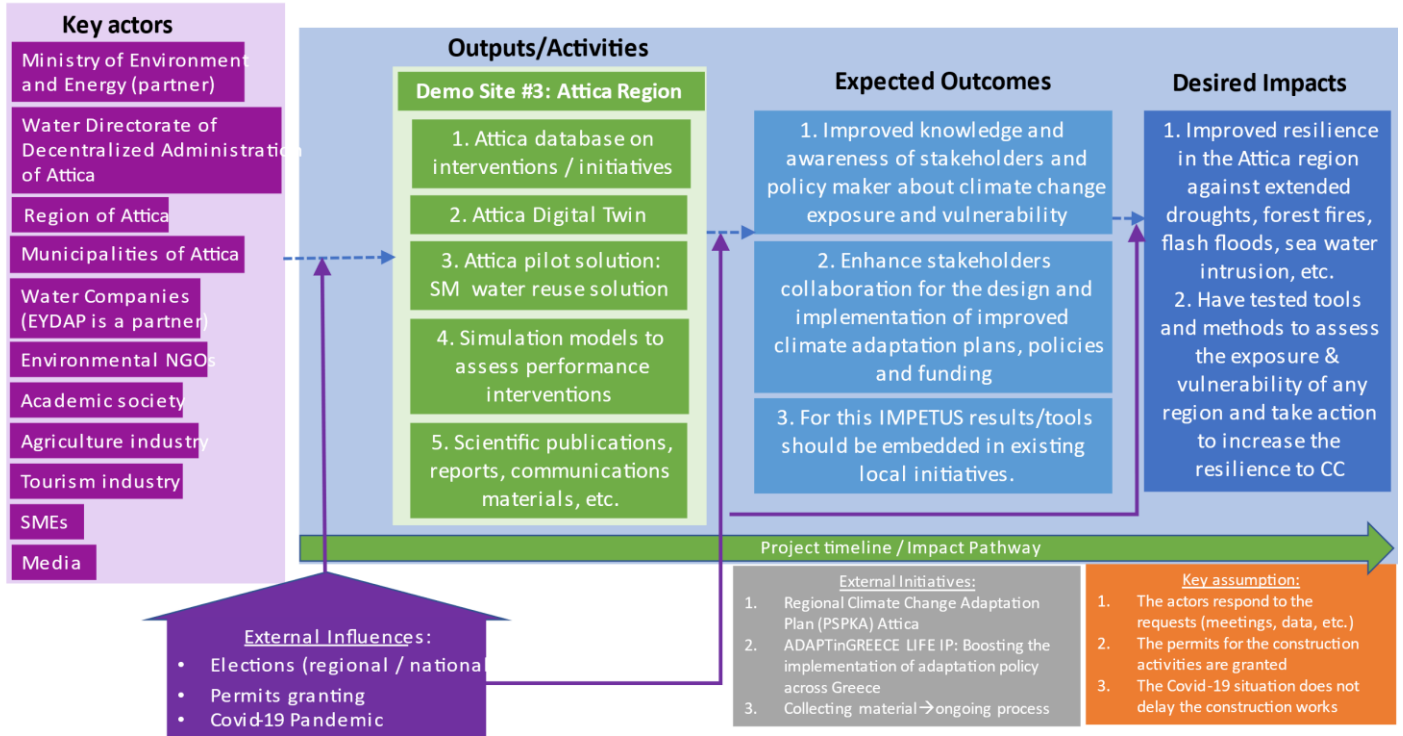
Roadmap URV Task 4.22



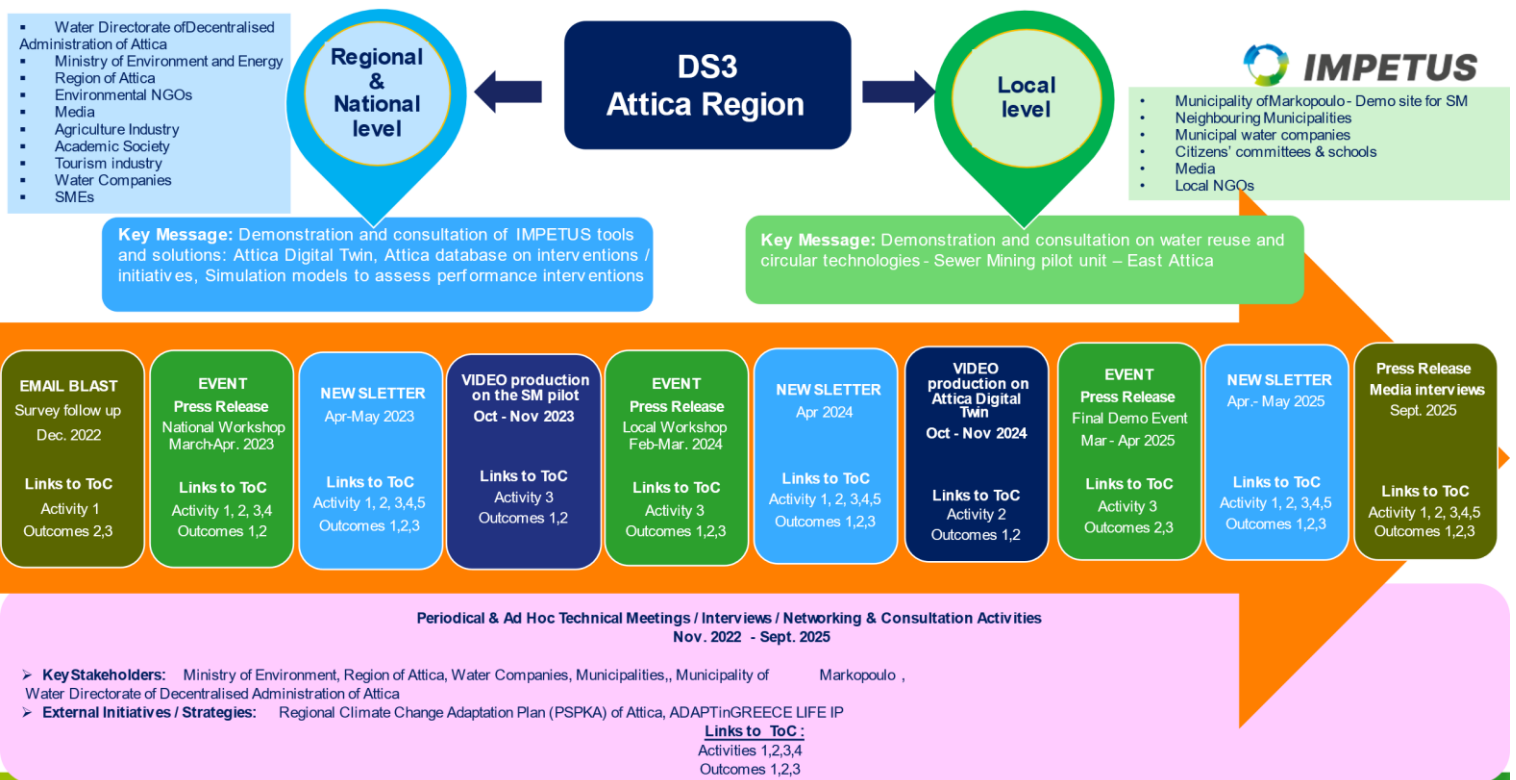
5.3 DS3 Mediterranean – Attica

Theory of Change

Theory of Change – Region of Attica



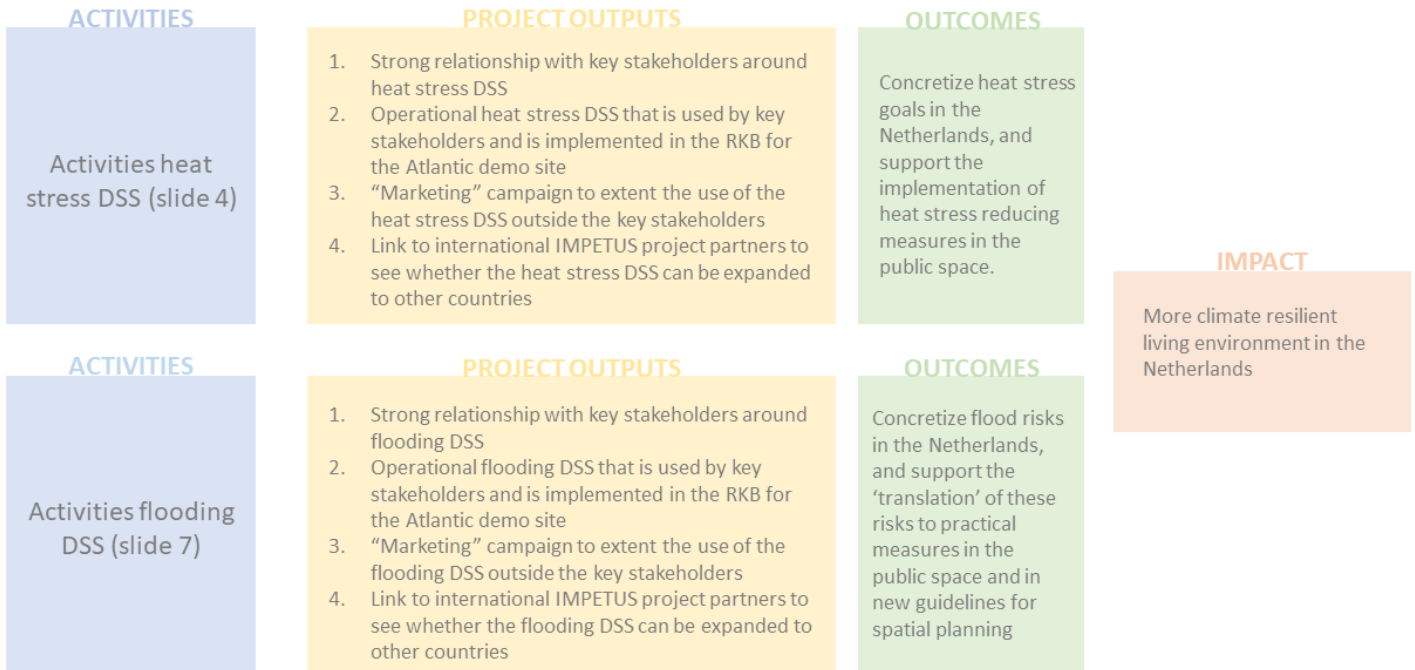
Roadmap



5.4 DS4 Atlantic – Zeeland

Theory of Change

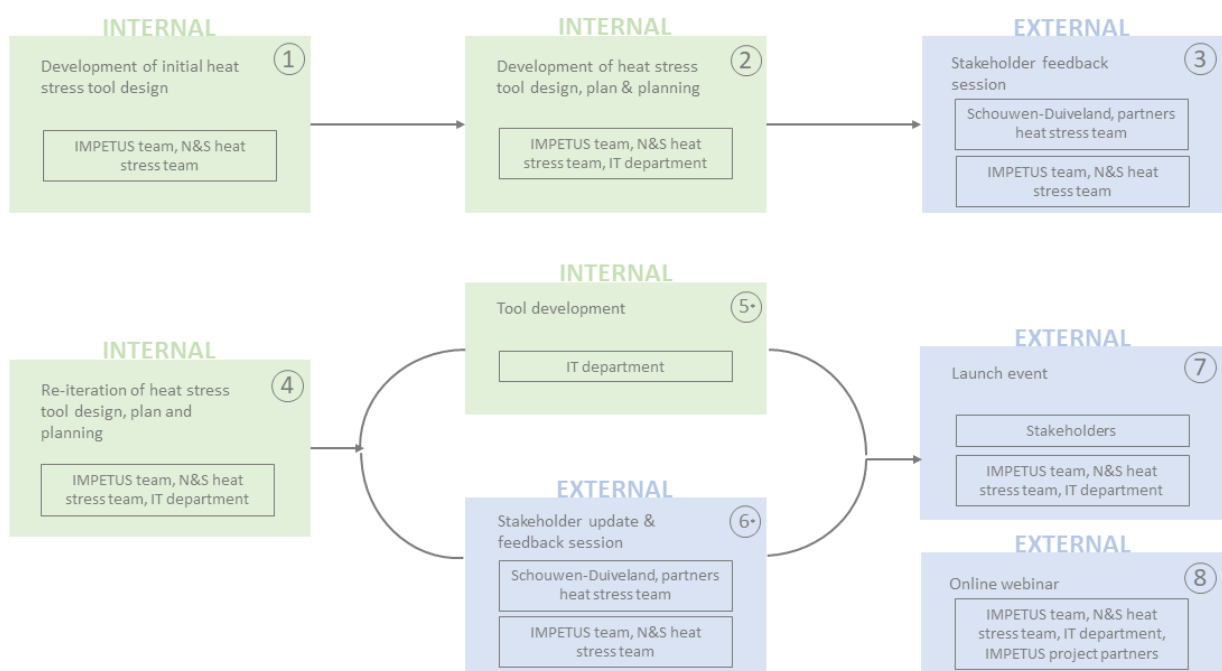
Overview ToC for the Atlantic demo site



Roadmap

DS4 Zeeland broke their roadmap into two streams as per their two main activities, which are on heat stress and flooding.

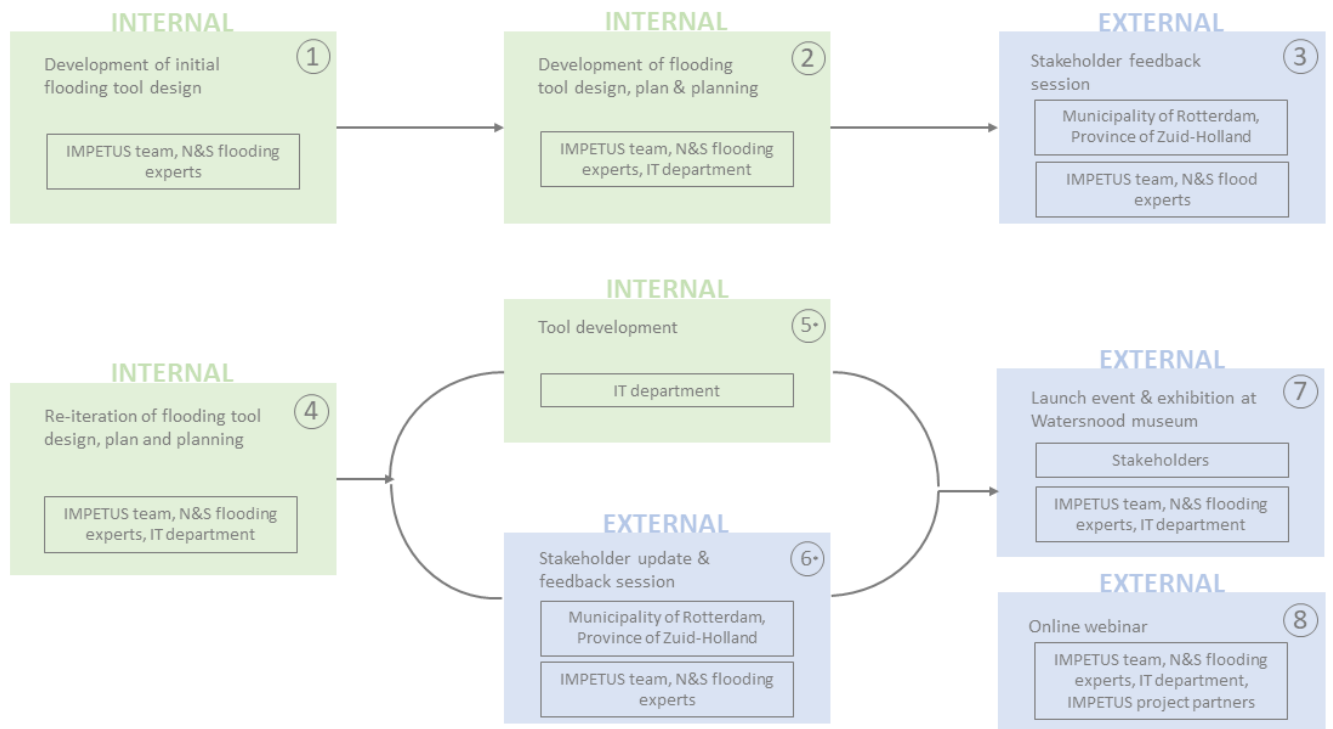
(1) Roadmap heat stress



*Number of cycles depend on step 2 and 4



(2) Roadmap flooding

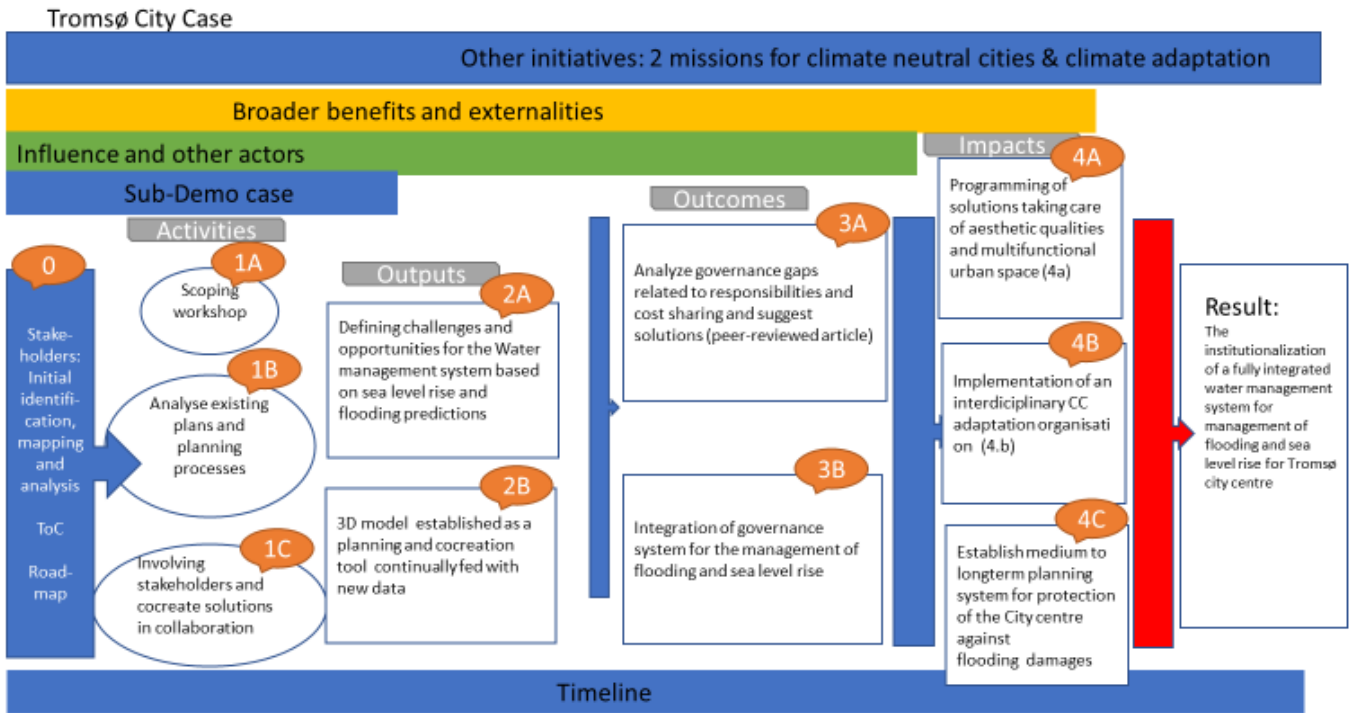


*Number of cycles depend on step 2 and 4



5.5 DS5 Arctic – Troms and Finnmark

Theory of Change



Roadmap

ROADMAP Tromsø – Stakeholder Engagement and Co-creation plan

(Revised 15.11.2022 and by UiT on Dec 21st 2022)



	Autum -2022	Spring- 2023	Autum - 2023	2024.
Timeline	Jan-febr/march	Jan - june	summer	
Event	StartUp UiT/TK/SWECO	Workshops	Data survey	Workshops, Events
Date/step	Prepare	Goals and criteria	3D modell	Different meetings, workshops and presentations
Activity type	Define the process	Step 1: Tromsø municipality	Step 2: Technical data input	Step 3: Politicians and stakeholders
Type & details	Getting out the to the public	Step 4: Groups, organisations, public	ToC	
Activity type	StartUp activities	Workshops Tromsø municipality, OSG, VA0, PLAN	Capacity stormwater runoff routes - city center	Stakeholders - co-creation
Type & details	Brainstorming; steps and activities 1A	Analyse municipal plans 1B	Visual material for co-creation	Political committees - co-creation 3B
Activity type	Stakeholder identification and mapping 0			Governance (Stat & fylkeskommune) 3A, 4B, 4C
Type & details	ToC component 0			National expectations for regional and municipal planning - presentation 3A, 3B
Activity type		Summary workshops	Stormwater and protection measures	Outdoor workshops / Art performance - spots at the promenade - sea level rise & climate change 1C
Type & details	ROADMAP SH engagement	Summary and output workshop, findings 2A	Mapping stormwater runoff possibilities - illustrations 2A	Co-creation stakeholders and decision makers
Activity type	Budget for Activities 2023-2024	Update Stakeholder register - governance 0, 1C, 3A	Concept for climate adaptation in 3D models 2B	Breakfast meetings 1C
Type & details	Organisation of the project	Co-creation UiT - landfilling into low sea levels - effect on climate change	Temporary and permanent protection opportunities 2A	Political meetings 1C
Activity type	Kick-off SH involvement - Tromsø UiT 1A		Design and diversity	Arctic city space - workshops 1C, 4A
Type & details			Exploring Arctic urban design for CA 1C, 4A	Wake Up calls - events (NODA) 1C
			Multipurpose areas in an Arctic climate 4A	Responsibility and insurance (Finans Norge) 3A
				Different events
				Papers
				«Bare pratt» - event (NODA)
				Forum for arctic urban development (KØBY)
				Student work, schools - co-creation
				Input framework and regulations Tromsø municipality
				Stormwater tax



5.6 DS6 Boreal – Zemgale

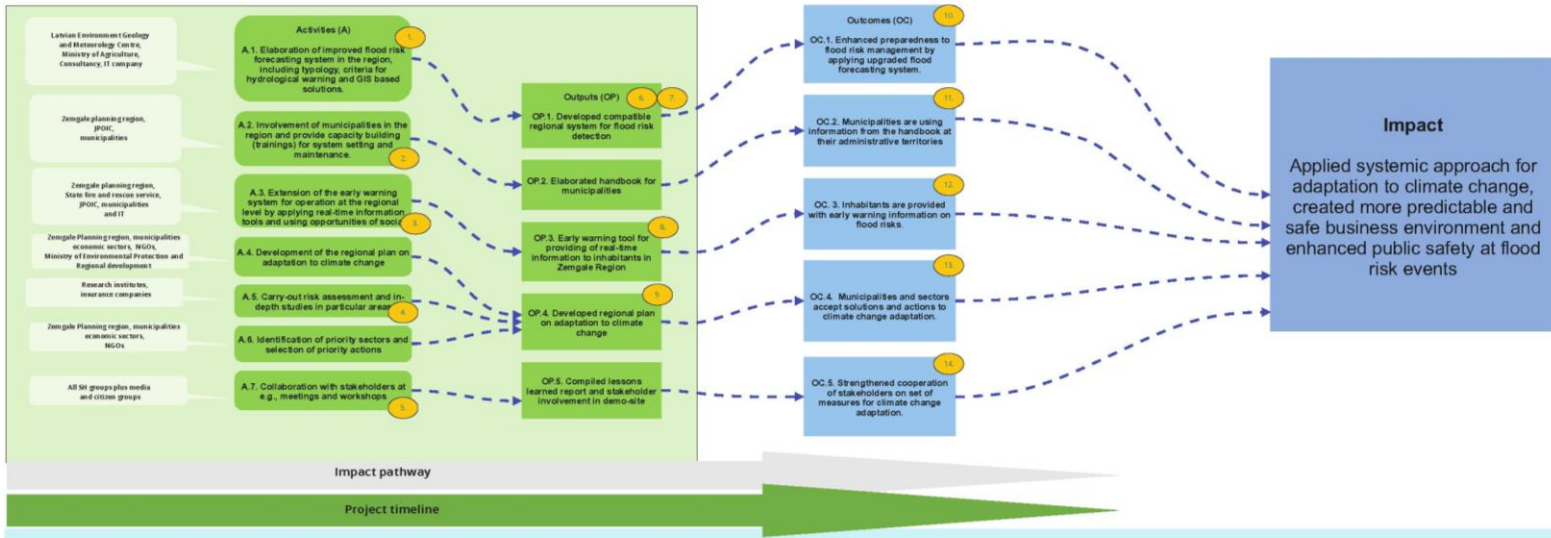
Theory of Change

External initiatives

Latvian national plan for adaptation to climate change until 2030

Stakeholder Map/ Latvia

Influence & Additional actors



Impact pathway

Project timeline

Project timeline

Assumptions

1. Data are available
2. Municipalities are ready to participate
3. Political will from decision makers to implement activities at municipalities
4. Availability of experts
5. Stakeholders are ready to collaborate
6. Municipalities ensure erection of infrastructure at their administrative territories
7. Common criteria defined and GIS-based platform agreed
8. Developed applicable IT solution
9. Adaptation needs of municipalities and sectors are reflected
10. Developed operational system at regional level
11. Handbook is available at municipalities
12. Accessibility of information on flood risks
13. Appropriate solutions for municipalities and sectors is selected
14. Approach and tools to foster collaboration are applied

Indicators

Output indicators:

- Enhanced **Early Warning System** for the Jelgava City is in operation: **1**
- Elaborated **Early Warning System with AI driven prediction** for Zemgale is in operation: **1**
- Elaborated **Digital twin and advanced tools** for climate adaptation are in use: **1**
- Handbook** for know-how to stakeholders is developed and available: **1**
- Municipalities** having obtained and using the elaborated system: **>2**
- Developed regional **Plan** on adaptation to climate change: **1**
- Meetings and other events** with stakeholders at the demo site: **4**
- Lessons learned report** on stakeholder involvement in demo site: **1**

Outcome indicators:

- Methods** applied for enhanced preparedness to flood risk management for integrated and coordinated national and regional multi-layer Early Warning System related to flooding: **6**
- Training for municipalities** to use information from the handbook thus increasing knowledge of local authorities to prevent and avert flooding risks and disasters: **3**
- Inhabitants** are provided with early warning information on flood risks (% of inhabitants residing in flood risk areas): **100**
- Regional community has adopted a **pathway** for climate change adaptation reflected in the Plan: **1**
- Accepted solutions** for climate change adaptation reflected in the Plan: **10**
- Stakeholder groups involved** in co-creation activities for elaboration of set of measures for climate change adaptation thus strengthening the cooperation in the region: **10**

Impact indicators:

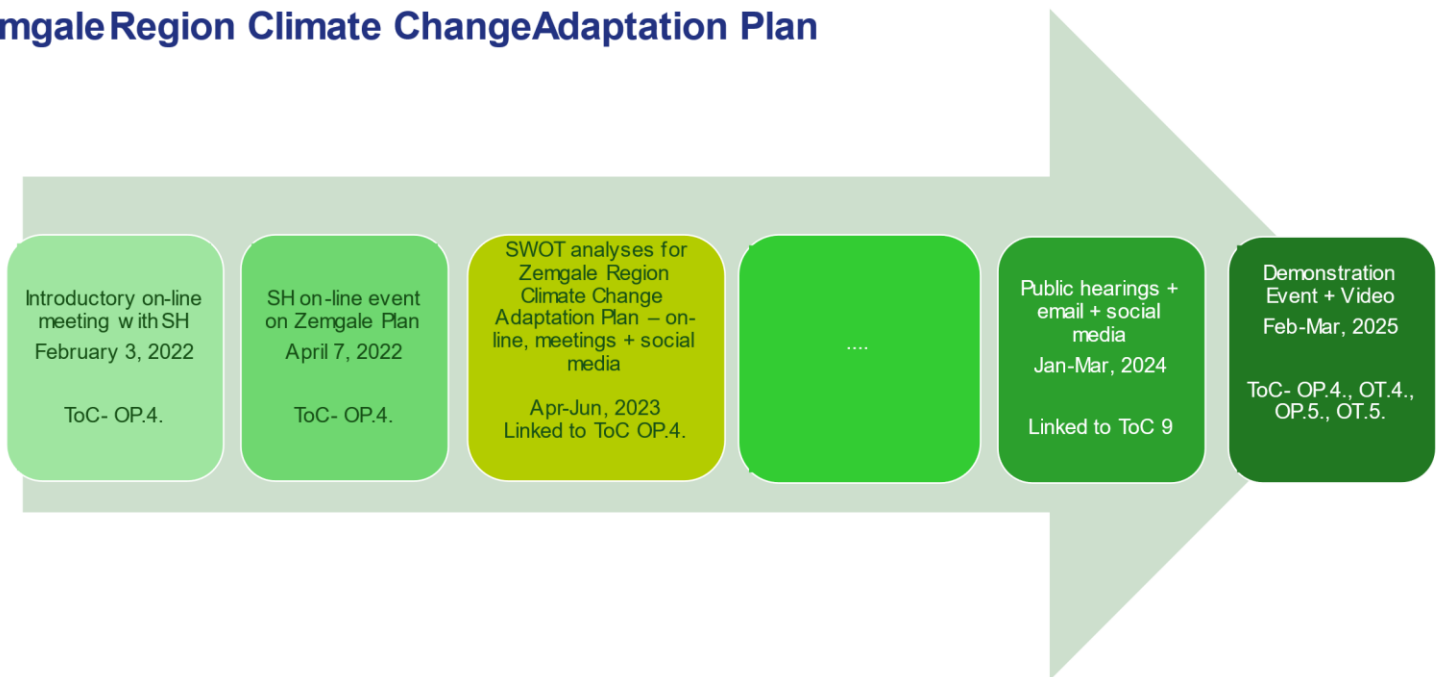
- Enhanced public safety** at flood risk events in Zemgale region due to elaborated Early Warning System: **Y/N**
- Systemic approach and cross-sectoral dimensions** for adaptation to climate change is taken up in strategic planning documents of the Region: **Y/N**

Roadmap(s)

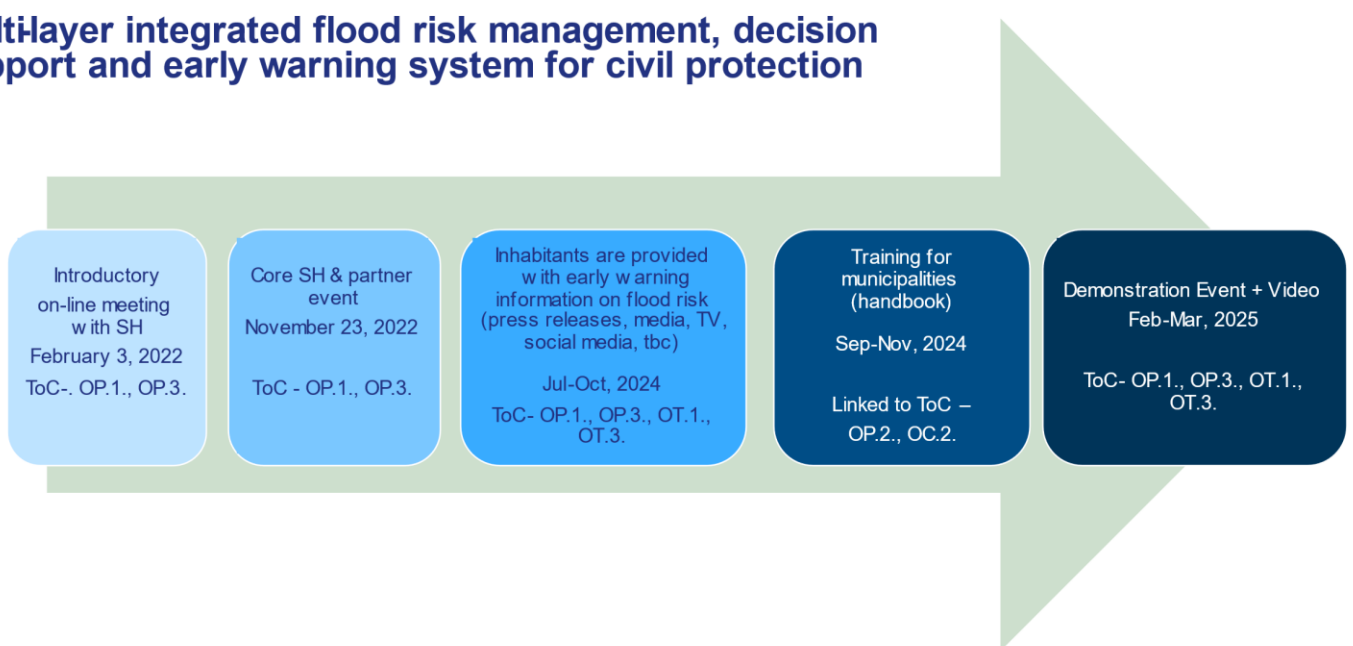
DS6 Zemgale divided their roadmap into two, reflecting their main DS activities: the climate adaptation plan; and the multi-layer integrated flood risk management, decision support and early warning system for civil protection.



Zemgale Region Climate Change Adaptation Plan

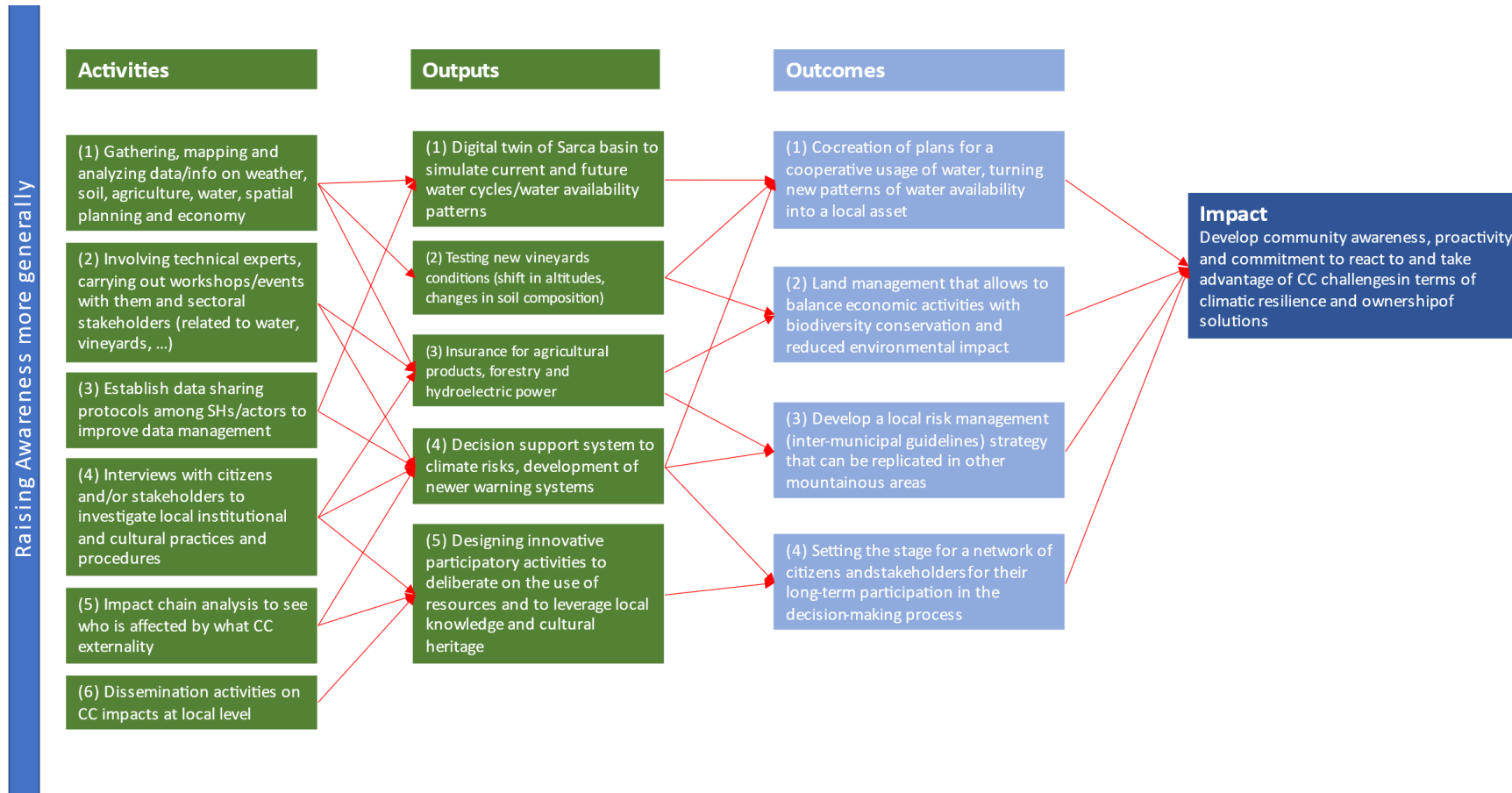


MultiLayer integrated flood risk management, decision support and early warning system for civil protection



5.7 DS7 Mountain – Valle dei Laghi

Valle dei Laghi Theory of Change: Valle dei Laghi has a multi-page ToC with their assumptions, external activities and more, however, we are including only their first page of their ToC for convenience.



Roadmap

When	2023: end of January / beginning of February	2023: end of February / beginning of March	2023: March/April	2023: March/April	2023: (1) end of March; (2) (3) October-November	mid 2023	2024: early February
Title of workshop/event	Kick-off event for the SH engagement process: I part	Kick-off event for the SH engagement process: II part	Workshop for the "risk task" - built environment	Workshop for the "risk task" - agriculture	Workshop on integrated water & energy management for irrigation	Workshop on the "insurance task"	Workshop to prioritize future risk assessment for tangible and intangible heritage aspects
Objectives	To present the project, DS activities, results of other projects which might contribute to the debate, SH engagement roadmap.	Same as the previous but more information and general on the project and Demo Site activities (target: the large public)	To understand what the main risks are and the measures already in place to address these risks. Strengths and weaknesses of the different phases: prevention, emergency and post-event. Working tables if possible.	To understand what the main risks are and the measures already in place to address these risks. Strengths and weaknesses of the different phases: prevention, emergency and post-event. Working tables if possible.	3 steps: (1) discuss the critical issues faced by irrigation consortia - facilitate concertation and collect inputs for DSS; (2) present results (implemented measures, software-DSS, etc.) of other projects on efficient use of irrigation water (irrigation systems + soil health & water retention); (3) solar farming (photovoltaic systems for irrigation)	<ul style="list-style-type: none"> Analyze connection between climate event(s) and impact on agriculture. Discuss the functioning/effectiveness of existing insurance schemes as well as of existing (if any) index-based policies. Investigate current needs and risk management practices of farmers. Identify missing information (data, risk management practices, compound hazards...). Evaluate drought as main risk (or if other ones are perceived as more urgent/important). 	TBD
Where	Trento	We can ask for the availability of Sarche theater or Dro theater	TBD	TBD	VdL	ITAS HQ in Trento?	TBD
Main connections with ToC	Impact, Activities 2-5-6, all Outcomes	Impact, Activity 6, all Outcomes	Activities 1-2-4-5, Outputs 4-5, Outcomes 3-4	Activities 1-2-4-5, Outputs 2-3-4, Outcomes 2-3-4	Activities 1-2-3-4-6, Outputs 1-4-5, Outcome 1	Activities 1-2-3-4, Outputs 3-4, Outcomes 2-3	Activities 2-4-6, Outputs 4, Outcomes 4

2024 (March-April)	2024		end of 2024/beginning of 2025	2025	2025	Final project event
Workshop on integrated water & energy management at the watershed level and impacts on fluvial ecosystem	Nature-based solutions for urban water management	Intermediate dissemination public event	Workshop on the altitudinal shift of crops	Workshop on hydroelectric sector strategies to face extreme events	Workshop on water conflicts in VdL	Final project event
Facilitate concertation between SH on DMV/ecological flow monitoring and maintenance in drought periods	Disseminate best practices on blue-green infrastructures for urban water management, provide inputs for a admin. plans for CC adaptation	Planning intermediate event as follow-up of the kick-off meeting to update the general public/stakeholders on how project activities are proceeding	TBD	Facilitate concertation with the hydroelectric sector, stimulate reflection on solutions to face extreme events, inputs for DSS	Develop and test a tool to facilitate SH concertation (environment for DSS adoption)	
Tione/Trento	TBD		VdL	TBD	TBD	
Activities 1-2-3, Outputs 1-4, Outcomes 1-2-3	Activities 1-2-3, Outputs 1-4, Outcomes 1-2-3		Activities 1-2-3-5, Outputs 2-4-(5), Outcomes 1-2-3	Activities 1-2-3, Outputs 1-4, Outcomes 1	Activities 2-3-4-6, Outputs 1-4-5, Outcomes 1-3-4	



5.8 Work Packages Stakeholder Engagement Roadmap

The spreadsheet below is a consolidation of WPs’ 1, 2, 3, 5, and 6 needs to engage DS SHs throughout the duration of the project to deliver on the project related tasks. WP4 and 7 needs for SHE are already included in the SHE, co-creation and communications roadmaps in the sections of [Chapter 5](#), WP7 is also linked with all other WPs via their needs for WPs communications. This has been mapped in discussions with the other WPs and WP1, and will be a living document and the project progresses.

WP	Task	Project Month(s)	Information that is needed from SHs	SHs Group from which information is needed	Planned Method/tool for gathering SH information	Comments/notes (FR = front runners)
WP1	T1.3 - Governance Assessment	M12-M42	DSs need to embed moments to discuss with the gov / policy SHs on the governance challenges identified in D1.3 for the adaptation solutions	Governance / policy SHs - all DSs	SH meetings with DSs	DSs will need to choose what is most relevant for them, and choose what to discuss with the policy and governance SHs what to address in order to deliver on DS tasks / adoption and implementation
WP2	T2.1 - Design of the RKB's digital and knowledge dimension	Q1 2023 (March 2023)- M17	Data collection and identification from Frontrunners (Catalonia and Greece CS)	DSs will define which SHs based on discussions with WP2	WP2 needs to discuss with the DSs which data WP2 needs and for which purposes (1 meeting per DS), and the DSs can reach out to the SHs to collect that data (need to define how that is done) / Can discuss with WP1 and WP7 best methods of engagement	Depending on the interest of the DS, DSs need to reflect on most interesting data - liaise with WP2 on how that fits into the platform - and then how the SHs can help to support getting that data. WP2 need data by Q1 of 2023 (at least for front runners - FR); WP2 can collect some data in public databases, but not all of it; support from DSs and their SHs is needed via meetings with DSs and meetings with SHs. Process: WP2 needs the DSs to decide on relevant data (together with WP2) and map what of these data is available publicly and what needs to be collected from SHs. Similar process also for indicators: DSs and WP2 together need to see which kind of indicators could be interesting and see if the data for quantifying them is available (a set of indicators was identified in D3,1and can be used by DSs as starting point to choose relevant indicators)
WP2	T2.5 - High visualization framework to support communities' engagement and knowledge exploration	Q2-Q3 2023 - July/September 2023 (M21-M23)	Feedback on the initial prototype of the IMPETUS platform (Digital dimension of RKB)	DSs will define which SHs based on discussions with WP2	Workshop / platform comments - present FIRST ITERATION OF PLATFORM idea and see SHs reactions to the proposal, gather SHs input - feedback on the visual aspect of the user interface. Specifically, needs from SHs about how they want to use the platform and which format they would like to see the results presented, functionalities of the platform, etc.	The DSs will need to identify the right people in the right organisations (using SH Register) from which they want feedback on the visualisation of the user interface (D2.1). The right people are the potential users of the platform from different type of SHs groups (public authorities, academia, private, NGOs, general public etc.) Idea from Sebastiano: instead of collecting SHs feedback in a workshop the platform mock up could offer the possibility to the user to add comments - SHs can add observations
WP2	T2.5 - High visualization framework to support communities' engagement and knowledge exploration	M36	Feedback on the final tool prototype	DSs will define which SHs based on discussions with WP2	SHs feedback on the ON FINAL PLATFORM via survey and/or workshop or comments left directly in the platform	Final round of feedback from SHs on the platform user friendliness, functionalitites, visualisation etc.
WP3	T3.1 - Generation of weather and climate data	M4-42	Co-identification and prioritisation of the challenges to be faced within WP3 (in connection with WP4), in particular climate scenarios and climatic variables . Lobelia is in the lead (all DSs)	DSs partners with eventually input from SHs with specific technical expertise	Exchanges with DSs	DSs will work with Lobelia to identify key climatic variables to be included in the scenario for each DS (data is for WP4). E.g. regional climate models have a lot of variable. Not all of them are needed. With Lobelia discuss the climate models and the related variable (data is WP4 and WP3). Technical exchange only with DSs, not necessarily with SHs, unless DSs have SHs knowledgeable. Timeline: depends on the progress of other tasks



WP	Task	Project Month(s)	Information that is needed from SHs	SHs Group from which information is needed	Planned Method/tool for gathering SH information	Comments/notes (FR = front runners)
WP3	T3.2 - Adopt and adapt indicators and metrics for climate change vulnerability, resilience assessment and pathway adaptation capacity / T3.3 - Identify and prioritise climate change 'hot-spots' / T3.4 - Analyse and assess resilience of key systems	around M19 - M21	Feedback on web-based application (GIS Tool) for exploring climate hot spots ; WP3 need data for the tool (same as in 3.1) and feedback on the user-interface of the tool (all DSs)	DSs partners and potential tool users	DSs partners will have meetings with WP3 for the data needed for the tool. The potential users will have the possibility to provide written comments around month 20-21 on the tool platform. Then a meeting in M25-26 with the potential users for the final feedback on the tool (see T3.4).	This tool is NOT the IMPETUS platform tool. This tool for climate hot spots will be included in the RKBs innovation packages.
WP3	T3.4 - Analyse and assess resilience of key systems	M25-26	RCRFT (regional climate resilience footprint): this is a module that is integrated in the climate hot-spot application (T3.3). WP3 needs feedback on visualisation and indicators for this module	DSs and potential users of the tool	Meeting in combination with meeting in T3.3 above	
WP3	T3.5 - Analyse and assess costs, benefits and risks related to interventions (related to T3.6)	M20-21	Data for the Attica DS: adaptation interventions, costs of the interventions if already quantified, possible identified cascading risks and effects from adaptation interventions, assessment tools they may use)	Region of Attica (FR) key technical experts (partners and other expert SHs)	Meetings/Workshop to collect data	WP3 has database with 2000 adaptation interventions from the literature; in the model WP3 will have few interventions to demonstrate; WP3 probably will bundle up some interventions. These interventions are the same type of WP5; in WP5 there may more specific interventions for the different types. WP3 create tools for the IMPETUS platform. Specifically, it develops the models for assessment of climate vulnerability and resilience. These tools/models aim to make adaptation pathways dynamic and adaptive to changing climatic conditions. WP3 uses Attica as example case to model and assess how these interventions perform on a region and how a set of interventions can make adaptation pathways dynamic and adaptive to changing climatic conditions. WP5 applies the adaptation pathways (made of the same interventions/intervention bundles used in WP3) to the DSs to see the impact of these interventions in the DSs in terms of resilience capacity and dynamic adaptation.
WP3	T3.6 - Strategic Resilience and Multi-Hazard Management tool for identifying dynamic adaptation pathways	M19	Concept of T3.4, T3.5 and T3.6 discussion	Region of Attica (FR) partners technical experts and technical SHs	Meeting	
	T3.6 - Strategic Resilience and Multi-Hazard Management tool for identifying dynamic adaptation pathways	M20-26	Discuss data availability for the Attica DS as we progress and develop the models of T3.6: climate interventions, masterplan and strategy for adaptation, key variables and parameters of the region (economic, societal, geomorphologic, climatic etc.), feedback on the development of the SDM	Region of Attica (FR) partners technical experts and technical SHs	Telcos (probably at least two)	
	T3.6 - Strategic Resilience and Multi-Hazard Management tool for identifying dynamic adaptation pathways	M26	Demonstrate the work in progress and developments of models to Attica DS	Attica Region partners and relevant SHs	Workshop	



WP	Task	Project Month(s)	Information that is needed from SHs	SHs Group from which information is needed	Planned Method/tool for gathering SH information	Comments/notes (FR = front runners)
	T3.6 - Strategic Resilience and Multi-Hazard Management tool for identifying dynamic adaptation pathways	M25-27	Preparation for the WP5 workshop	All key partner people from Attica region that will participate to WP5 workshop	Informal meeting with Attica partners	
	T3.6 - Strategic Resilience and Multi-Hazard Management tool for identifying dynamic adaptation pathways	M30-40	Possibly presentation of all WP3 work at the WP5 workshop on innovation packages	All participant to WP5 workshop	WP5 workshop	
WP5	T5.1 - Adaptation Pathways / T5.1.2 - Objective setting, definition of performance metrics, identification of threshold values and uncertainty handling	M20-M27 - need info by M27 latests - so engagement needs to happen before	To define and run the adaptation pathways in the IMP tool, WP5 needs to know from DSs and their SHs: local climate change vulnerability problems, local CC impacts, tipping points, performance metrics For the design of the decision support tool WP5 needs to know the policy interventions that the DSs and their SHs would like to include in the tool. The tool will assess the resilience of the system as result of implementing these policies	Policy makers (to identify interventions for the IMP tool), technical experts (technical parameters like tipping points), all types of SHs	Emails + Workshops per each DS: need to discuss with DSs which SHs to involve based on their knowledge of them (use SH Register) Have a setting the scene workshop between M16-M22 in each DS?? plus ad hoc small group meetings DSs with SHs on specific needs (e.g. policy interventions, tipping points, etc.) There needs to be one workshop per DS where all SHs are together at once / Can discuss with WP1 and WP7 best methods of engagement	
WP5	bridge between T5.1 - Adaptation Pathways / T5.2 - Innovation Packages	M25-M35 (overlap between both tasks)	Selection of adaptation pathways: the adaptation pathways will be chosen according to the tool developed in T3.6 and the feedbacks from SHs/policy makers in DSs.	Policy makers, technical experts, all types of SHs	After the first workshop and iterations on the key parameters (see above) small group meetings with SHs are needed in each DS to fine tune, discuss the selection of the adaptation pathways (to be carried out in a sustainable manner)	Continuation of 5.1 into 5.2 - can include comms items and keeping interest actions / Planned ahead, a number of iterations with the different SHs - need to plan multiple workshops / meetings (to be carried out in a sustainable manner)
WP5	T5.2 - Innovation Packages	M30-40	Definition of innovation packages	Policy makers, technical experts, all types of SHs	One workshop with SHs from all DSs for the discussion of the results of the assessment done by the IMP tool on the different policy interventions and validation of the related innovation packages. In collaboration with WP3 (see above)	Innovation packages are presented - they are mostly finalised, hope no major comment; discussion is about the implication of the results for the region and possible use of the innovation packages in the region
WP6	T6.1 - Provision of briefings and guidelines for decision-makers in public agencies and administration / T6.2 - Provision of briefings and guidelines for decision-makers in industry and finance	M24 (WP2,M55) - M36	Feedback to Resilience Knowledge Boosters	Industry, finance, public admin.	Decision Theaters	Outputs of WP6 shall trigger impacts beyond the project duration.



6 Reflection, conclusions and next steps

The SHE and co-creation at this point in the project has fulfilled all the requirements of the Grant Agreement (i.e. mapping of SHs, SHs analysis and SHE plans for all DSs), and more. The main findings of this current deliverable are summarized below:

- As one of the first tasks in WP1, **the survey posed a few challenges because it tried to combine multiple needs for different WPs into one survey**. It ended up being quite long and challenging survey to gather enough useful data. Nevertheless, with great cooperation with WP7, WP1 and the DSs managed to **reach out to over 860 stakeholder across Europe** with press releases that highlighted the project and the surveys.
- With approximately **400 respondents to the SH survey**, we were able to collect data points for the IMPETUS DSs and WPs project work. Despite the differences in bioregions, **“drought and water scarcity” was highlighted as one of the most urgent climate change problems** by local actors in 5 out of 7 of the DSs. Interestingly, the most cited solution to climate change problems across the DSs was **“responsible resource use and circularity”** in 4 out of 7 DSs.
- **A flexible, adaptive and iterative approach is required**, especially when dealing with SHE and co-creation. A ToC is particularly suited for this purpose as it helps DSs to reflect and plan their work in a structured and systematic way, and to adapt as needed over time. The DSs ToCs can be adapted with input from SHs, and is a good visualisation tool to communicate across the project and with SHs. The SH registers and roadmaps have also been crafted in such a way that the DSs can update them over time.
- **The SH register is a useful tool** – but became rather large and cumbersome for DSs – however, they are useful for filtering between the different SHs and to know how to engage and communicate with them about the project and staying updated on SH information over the course of the project.
- **The DS internal assessment proved to be challenging for the DSs**, as there were SHs they did not know, and so could not adequately assess. In addition, some DS partners felt they did not have a good understanding of the Mitchell et al (1997) framework to be able to effectively categorize the SHs. In future, we would use another strategy that is better suited to the DS partners.
- **SHE and co-creation is a process that requires a lot of time, capacity and expertise** from the side of the support (WP1) and from the side of the DSs – but ultimately this process and planning should help the DSs to effectively coordinate and deliver on their goals with SHs.
- **Gender balance continues to be a challenge** for most DSs. For many DSs, the exact gender percentages were unknown, as some SHs did not share that information, or the DSs were unable to identify the gender when they did not know the SHs (e.g. those SHs who answered the survey via social media or press releases). We have encouraged them to keep working on this, across all functions and QH SH groups.

Next steps:

- **Support detailed engagement planning and execution as the project develops**
 - Parallel to this deliverable, in January 2023 there will be a meeting to define a project ToC, which will help to better integrate the WPs’ needs into the DSs’ ToCs and



roadmaps, and vice versa, with the DSs' ToCs and activities better represented in an overarching project ToC and goals.

- In February-March 2023, WP1, WP7 and DSs there will be a meeting to update on the workflows between WPs and DSs and what that means for SHE, co-creation and communications (based on the January project meeting). At the meeting DSs will be reminded to include the multi-level governance barriers for the implementation of the IMPETUS solutions identified in D1.3 in their SHE discussions.
- **Monitoring and evaluation of SHE, co-creation and communications guidance document** to be written by WP1 and WP7 in February 2023 as the 4th and final guidance document for WP1 to DSs. This will help WP1, WP7 and the DSs keep track of the SHE, co-creation and communications activities for reporting, as well as for gathering feedback for the DSs themselves from the SHs to improve their SHE, co-creation and communications activities. Part of this has already started as indicated in Guidance 3 ([in Annex 3](#) of this deliverable) with the Meeting Reports, SH Feedback Survey, etc.



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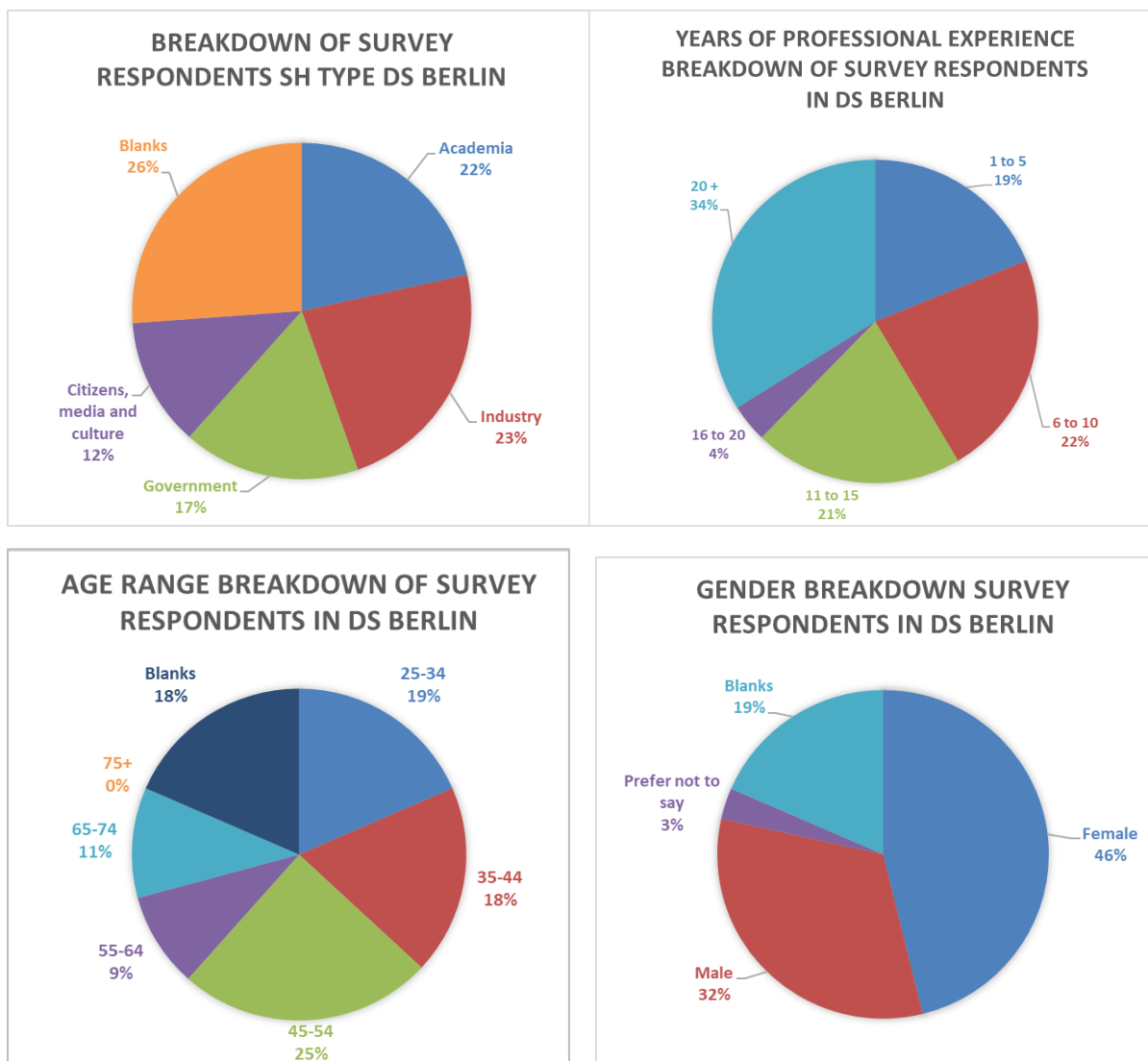
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Annex 1: Results of Stakeholder Survey

DS1 Continental – Berlin-Brandenburg

Survey respondent demographics

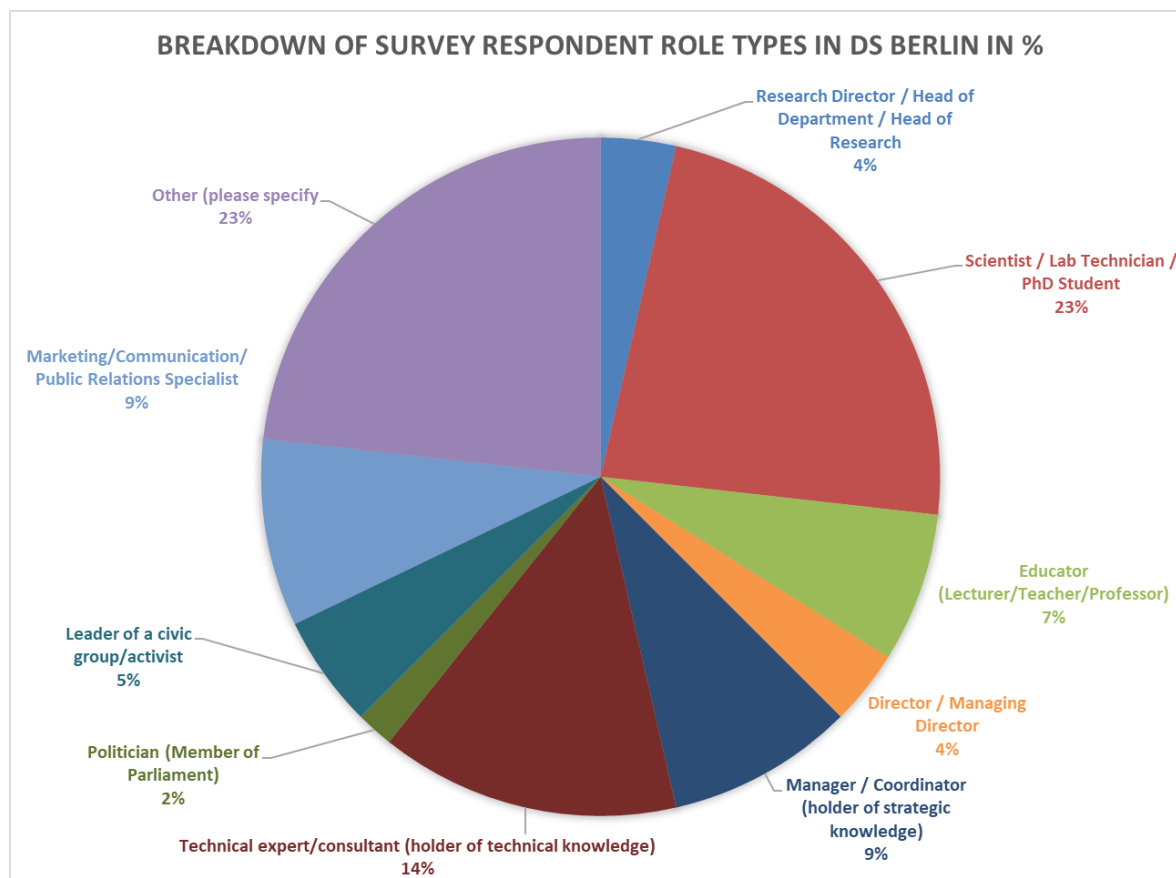


List of Survey Respondent Roles at their Organisations

Role Type	# of Respondents
Research Director / Head of Department / Head of Research	2
Scientist / Lab Technician / PhD Student	13
Educator (Lecturer/Teacher/Professor)	4
University student	0
Entrepreneur (business owner)	0
Director / Managing Director	2
Manager / Coordinator (holder of strategic knowledge)	5



Technical expert/consultant (holder of technical knowledge)	8
Politician (Member of Parliament)	1
Mayor	0
Leader of a civic group/activist	3
Journalist / radio presenter etc.	0
Marketing/Communication/Public Relations Specialist	5
Artist	0
Farmer	0
Other (please specify)	7



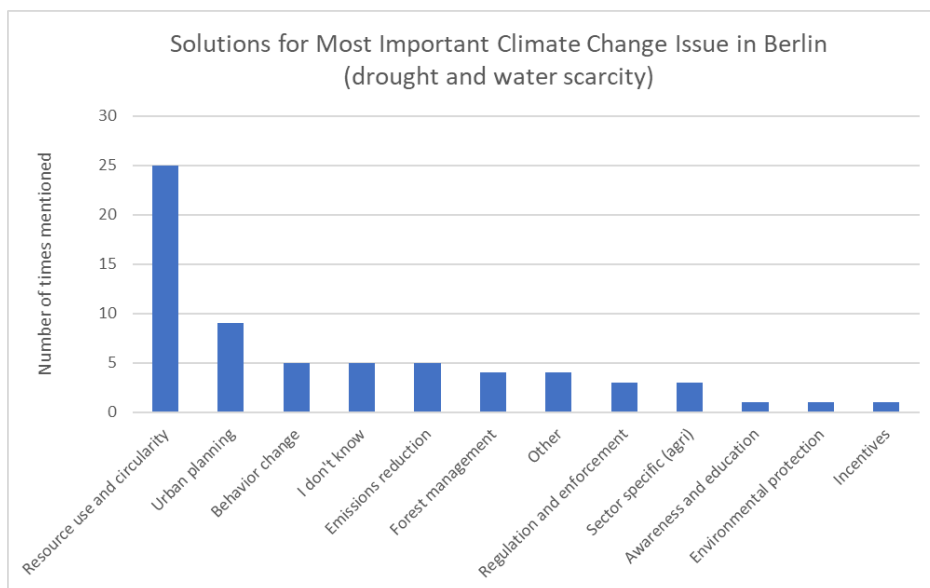
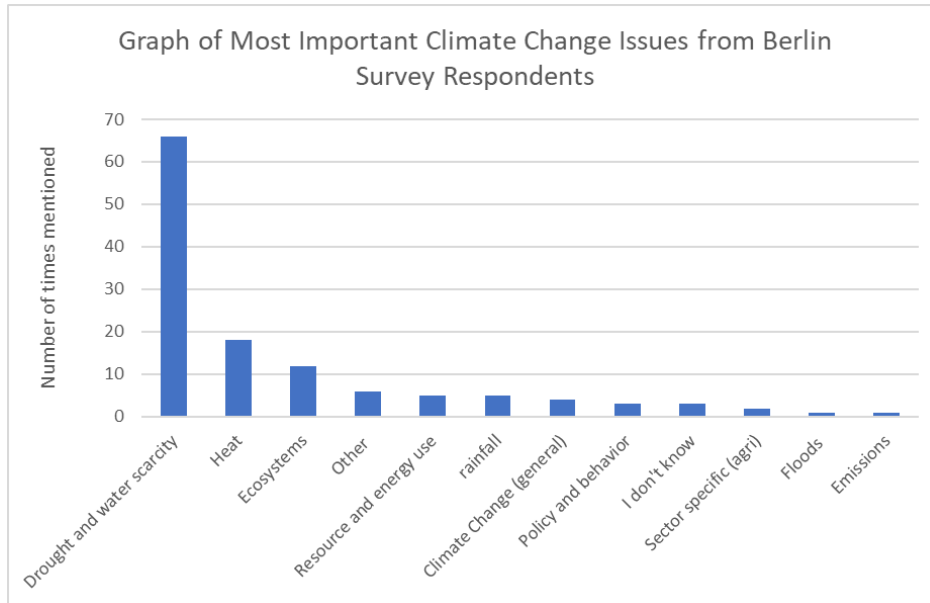
For the category Other:

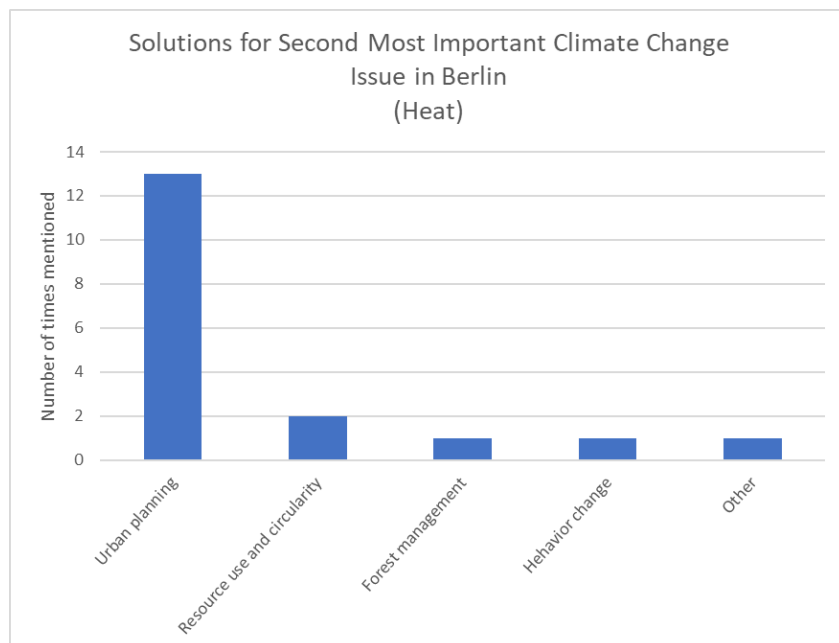
Duplicates removed - See the SH Register and survey data for specifics about each stakeholder

Research Associate
Head of the Climate Protection Coordination Office
Visitor management, public relations
Volunteering
Group leader urban development plan climate
Project leader
Volunteer



Most Important Problems and Solutions as Perceived by Survey Respondents in Berlin-Brandenburg





List of reported Climate Change Initiatives in the Region of Berlin-Brandenburg

Rainwater Agency
BEK 2030 funding program for climate adaptation
Local politics, research projects
Berlin Water Charter Water Master Plan Berlin Climate Day Sustainability Platform Brandenburg IASS Potsdam
Climate neutral living in Berlin
Berlin: a. Step climate b. Masterplan Water Berlin c. Smart Water / Smart Cities d. Digital Water City Nationwide: a. National Water Strategy b. Environmental policy digital agenda
Adaptation strategy to the consequences of climate change of the LHP, creation of a city climate map and heavy rain risk map; Planning ideas competition for the city canal
Sponge City Berlin Council for Sustainable Development ufafabrik Berlin
Green City, Fewer Cars
Municipal climate protection programs
Rainwater Agency, Climate Urban Development Plan
Berlin Rainwater Agency Climate adaptation planning of the Senate Administration
Climate lawsuits by DUH, activities by BUND, NABU, Friends of Nature, Ende Gelände, Changing Cities and many others, the mobility law, declaration of a climate emergency, ..., there are many initiatives. Compared to the problems, the effect is unfortunately too small.
Fridays for future, citizens' initiative on Straussee (task force), local politics has initiated the climate committee.
Country low water concept
International, European and national climate protection initiative (IKI, EuKI, NaKI), master plan water Berlin, water moves Berlin, climate smart cities
Local initiatives for green courtyards, rainwater collection (from the roof) to biotopes and street trees
Changing cities
Rainwater agency, circular on runoff-free new urban quarters (Senate Department for Urban Development, Building and Housing)
Local politics
Berlin strategy, ZALF research, water concern group in the municipal neighborhood forum B-BB



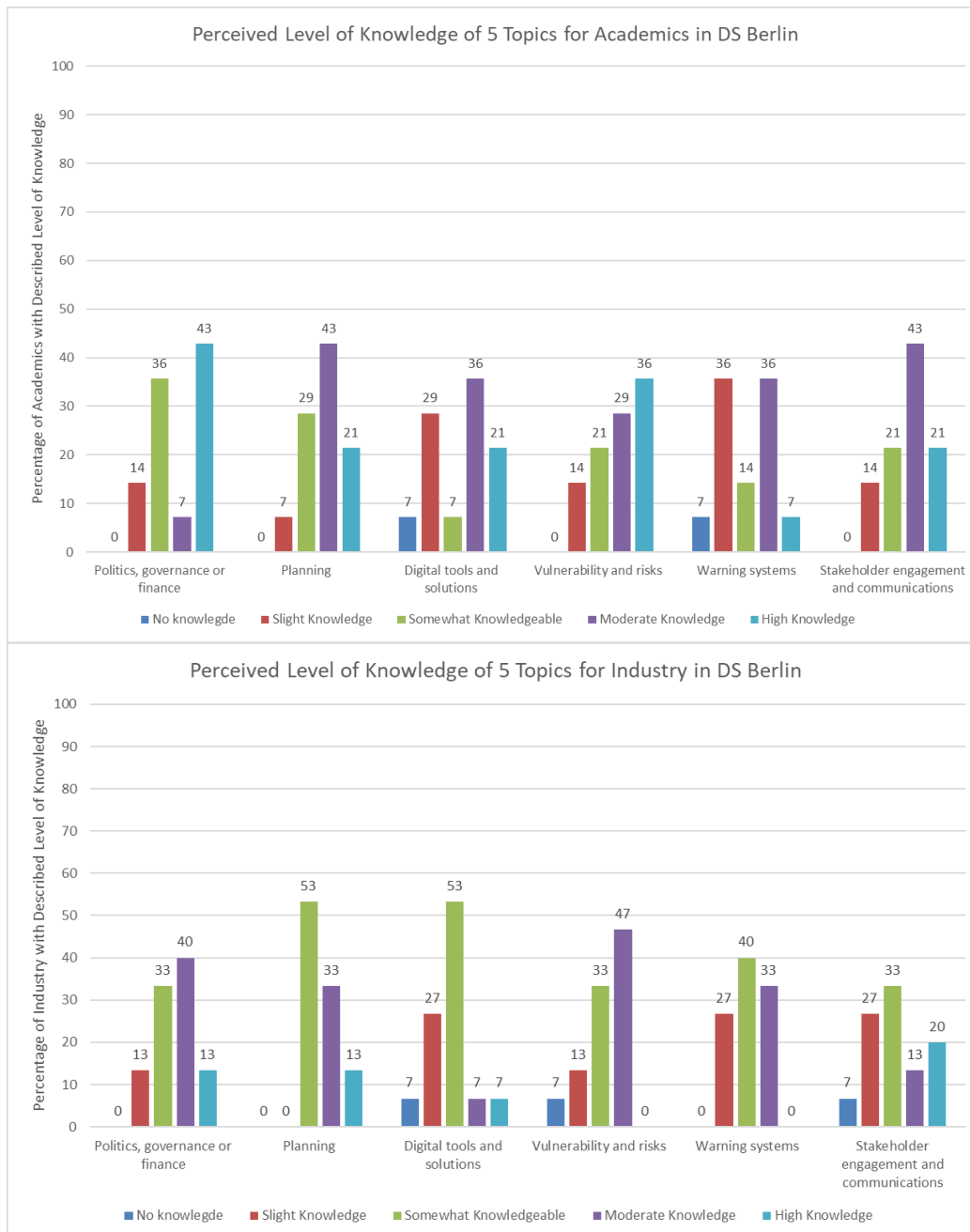
Local politics, regional joint strategies e.g. about the Barnim Nature Park
Rainwater agency, blue community, resilient cities network,
Sponge City Berlin, "Gieß den Kiez", BEK, Rainwater Agency Berlin
Forest fire early detection
AFOK
Potsdam Climate Protection Plan, Municipalities for Biodiversity
Rainwater agency, resilience concept of water companies, master plan water, study on water supply in the Berlin-Brandenburg metropolitan region
Many: Eg the ADFC fighting for bike lanes, people watering trees, people educating people, not eating meat anymore, fighting surface sealing
MasterPlan SolarCity Berlin Solar Center Berlin Initiative Rainwater Agency Remunicipalisation of the energy supply
Berlin rainwater agency tour
Green League, NABU, BUND
Concept for adapting to the consequences of climate change, Berlin Rainwater Agency
The Green State Minister Vogel takes care of eg. about forest conversion, in the city of Potsdam the cycle paths are to be improved; Individuals who water, plant...
Fridays for Future, Sciences for Future, Municipal Strategy, ...
Promotion of the LH Potsdam for e-mobility, adaptation of horticulture, etc
Rainwater
Local policy: Planting heat and drought resistant trees in parks and along streets
Climate adaptation strategy of the LH P
C40, construction of neighbourhood parklets in Berlin, neighbourhood block initiative by changing cities, various petitions from civil population movements: climate restart, Tempo30 in Berlin Kreuzberg, Berlin car-free, etc

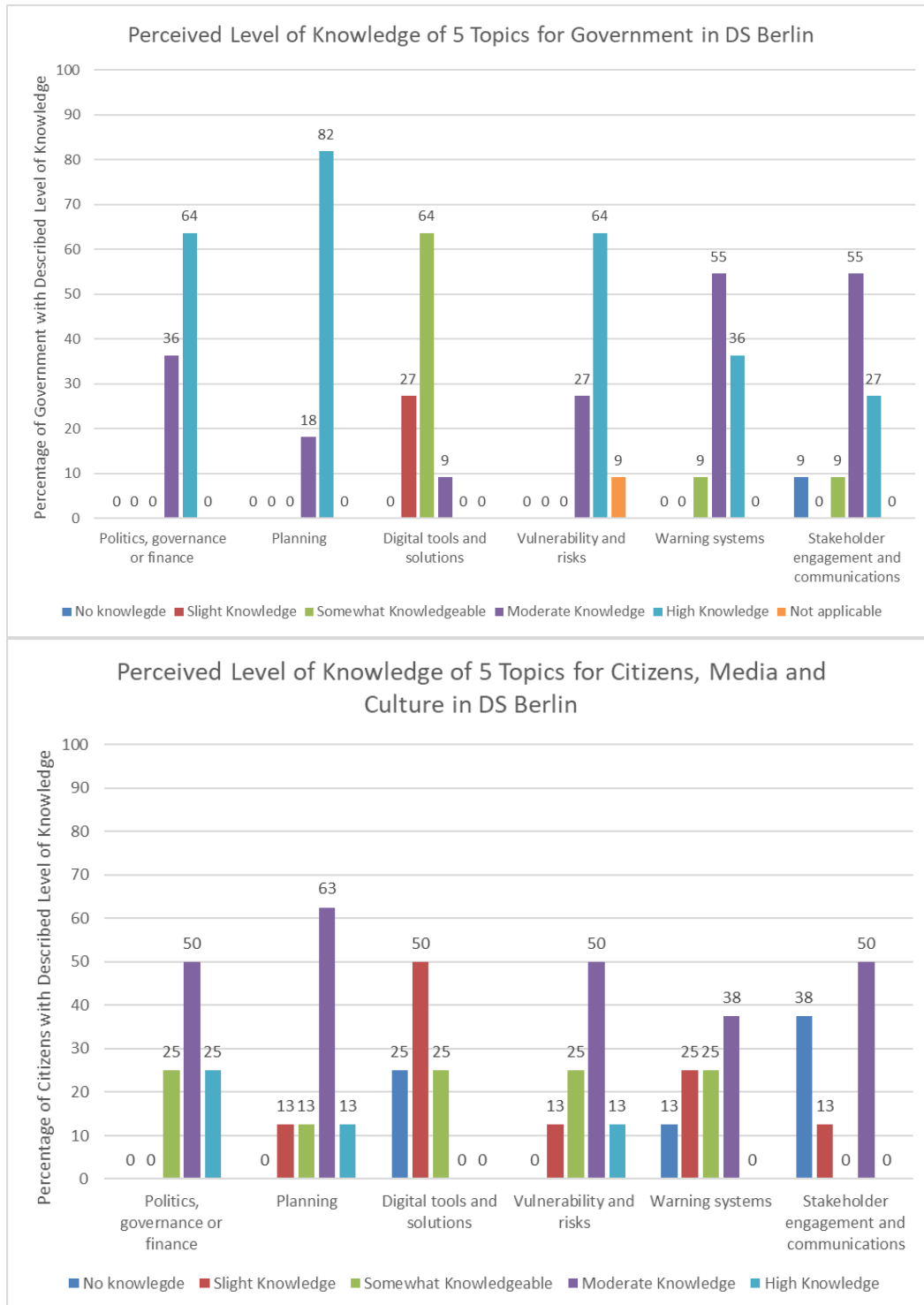
Stakeholders Knowledge and Perception on Climate Change per Quintuple Helix Stakeholder Group

It is important to note that the knowledge and perception of climate change below for QH group varies in number of respondents, sometimes greatly. For the Berlin DS, there were:

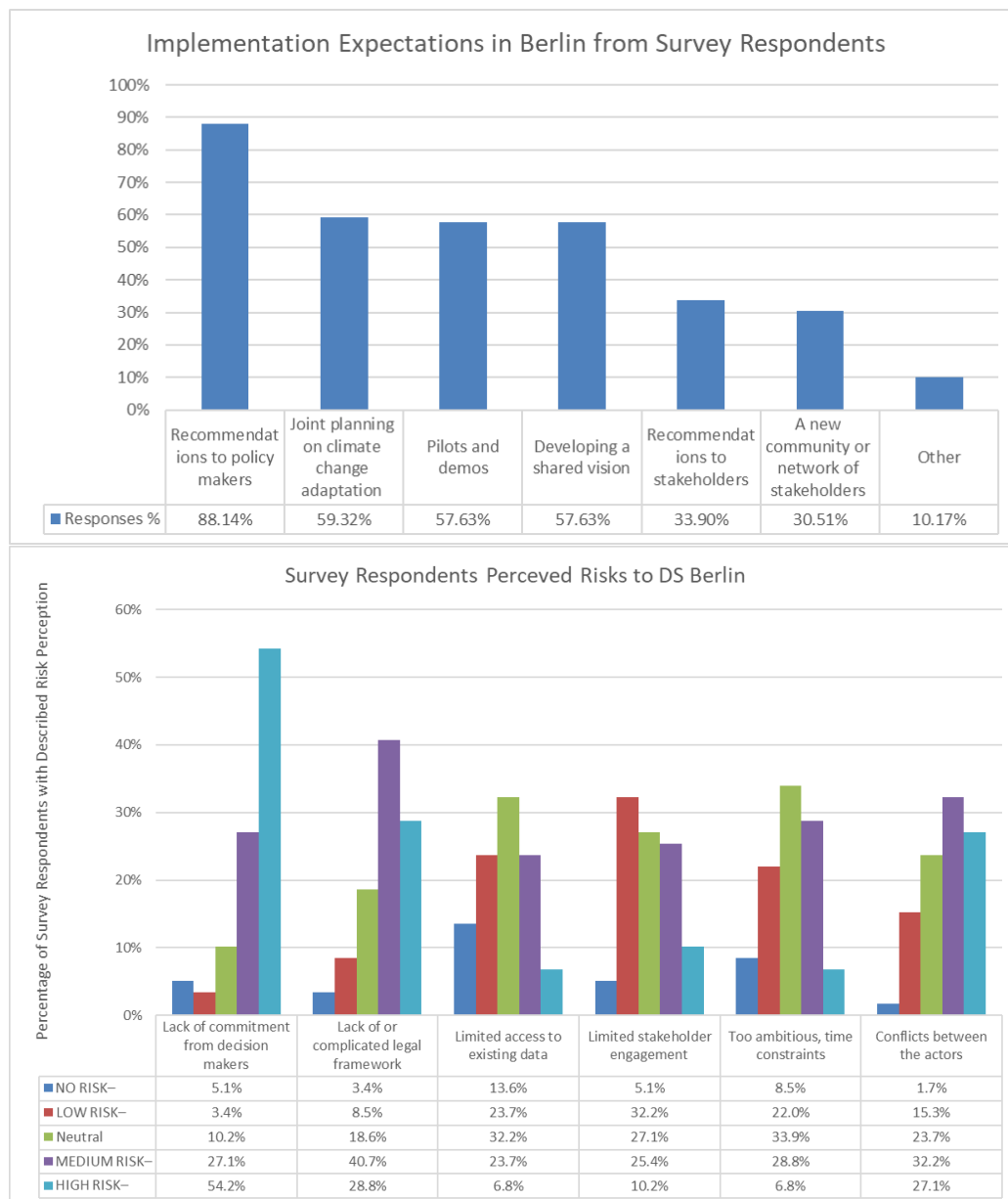
QH Type of SHs	Number of respondents on the question about knowledge and perception
Academia	14
Industry	15
Government	11
Citizens, media and culture	8
Other	0
Blanks	17

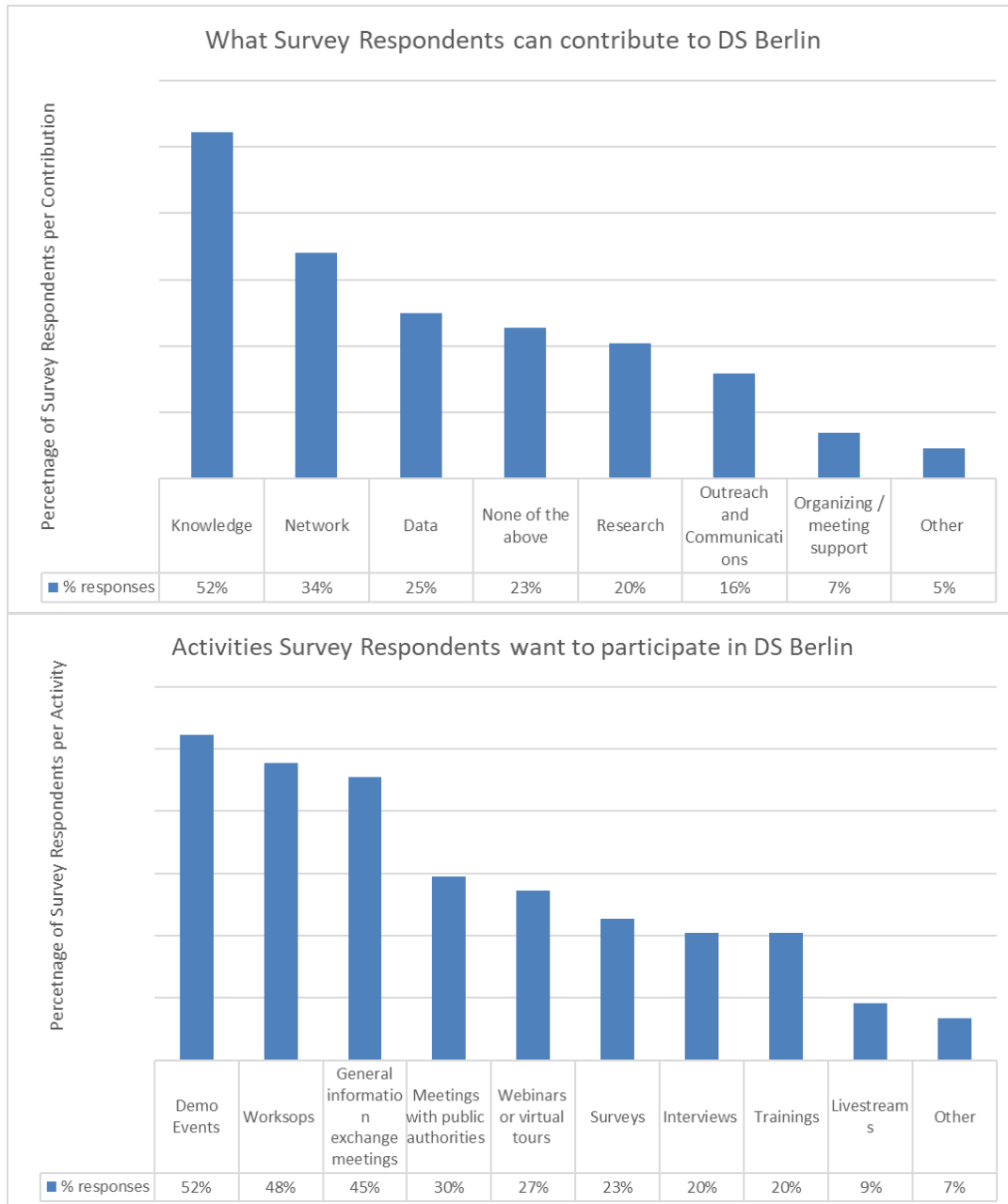






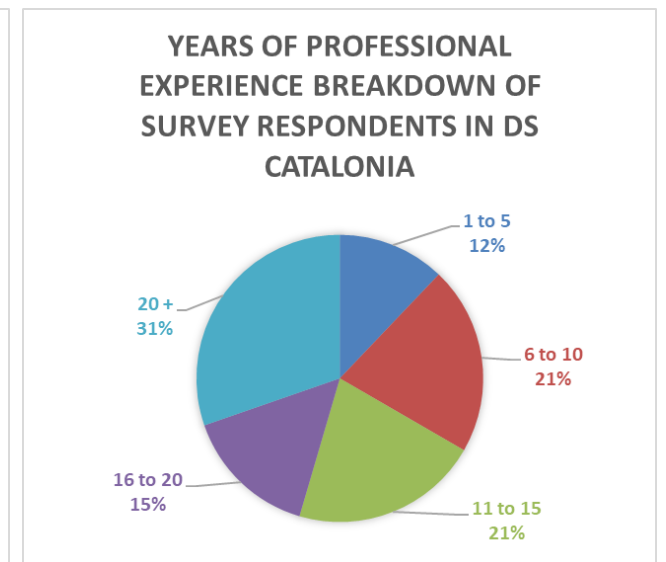
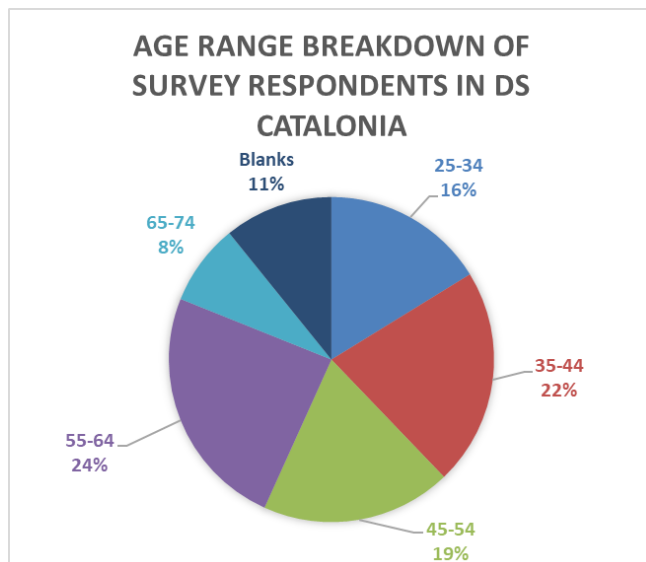
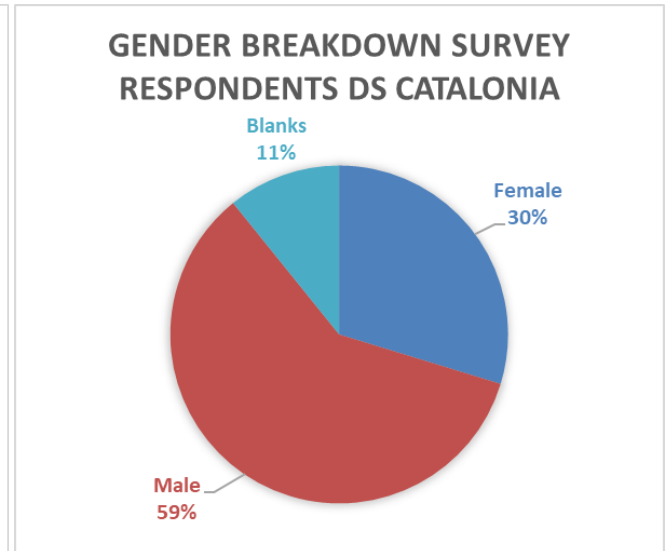
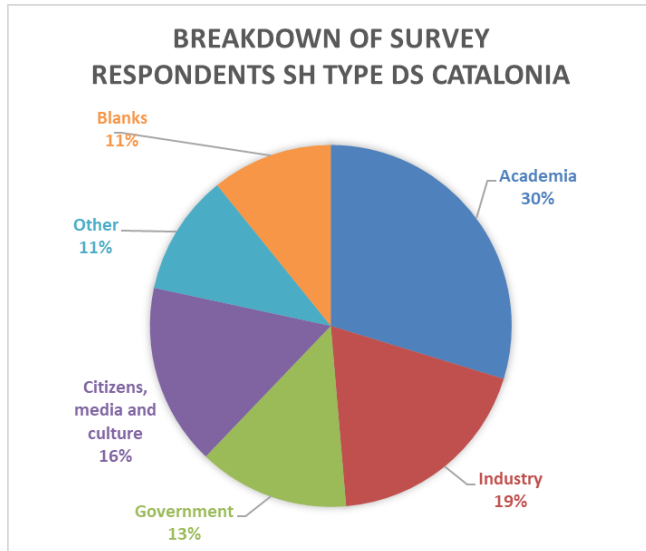
Stakeholders expectation and capacity to contribute to the IMPETUS project

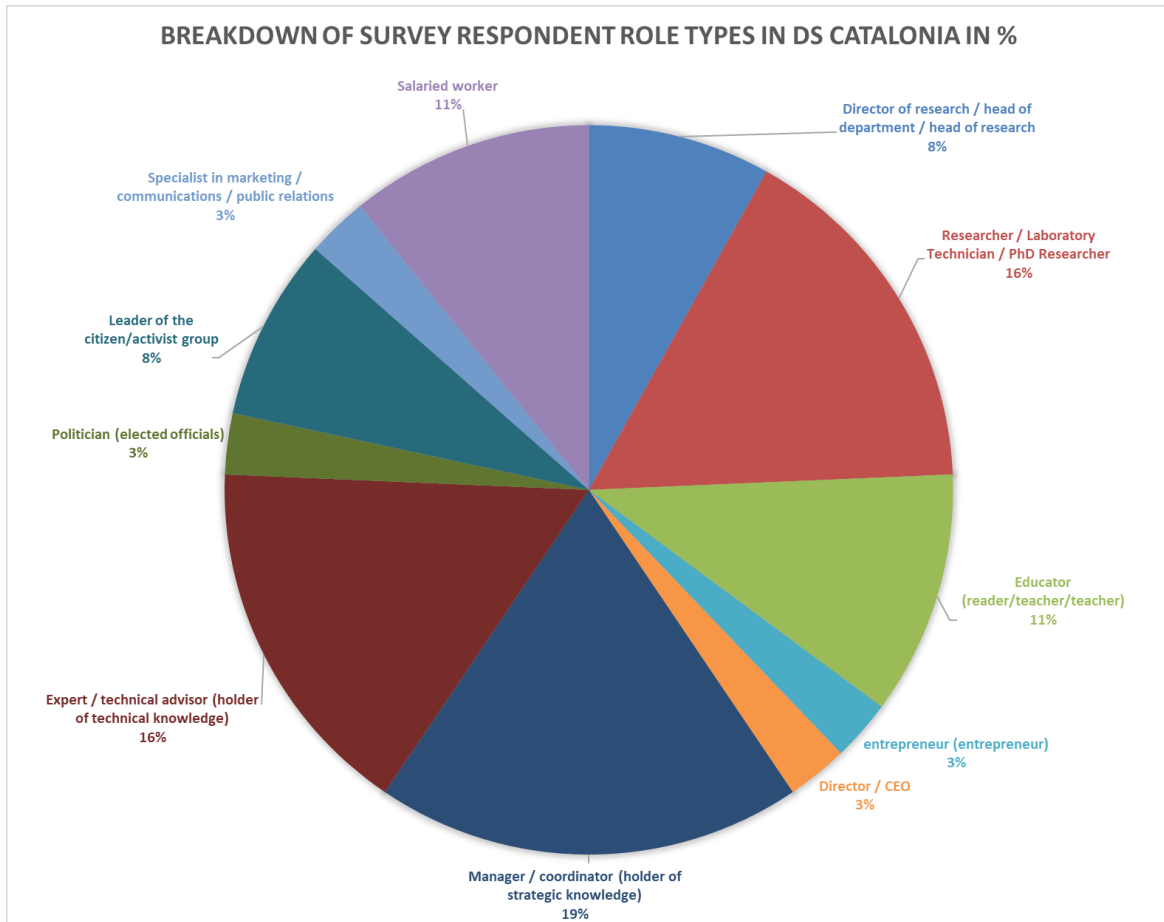




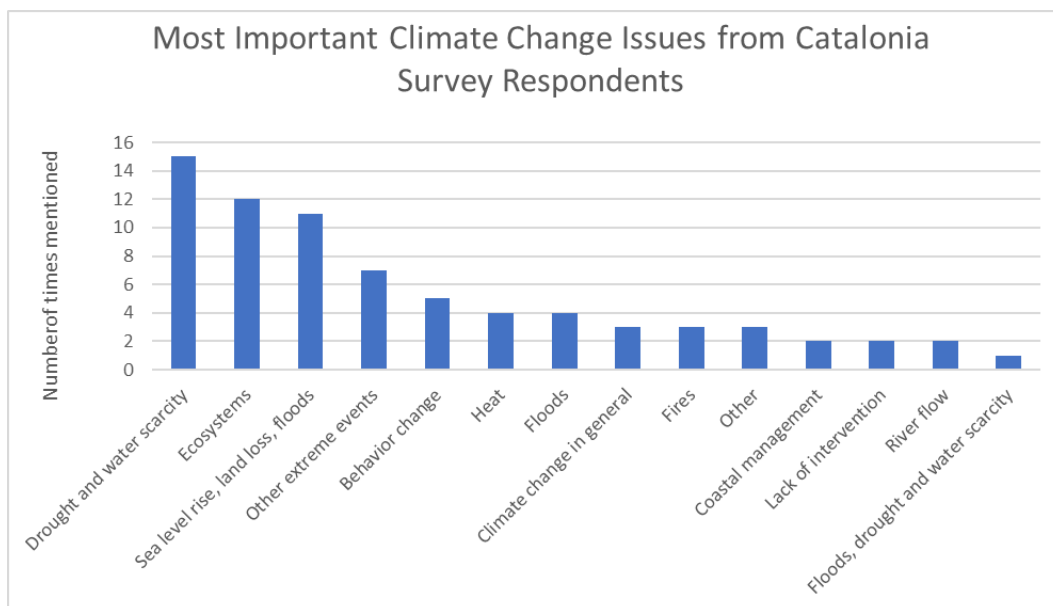
DS2 Coastal – Catalonia

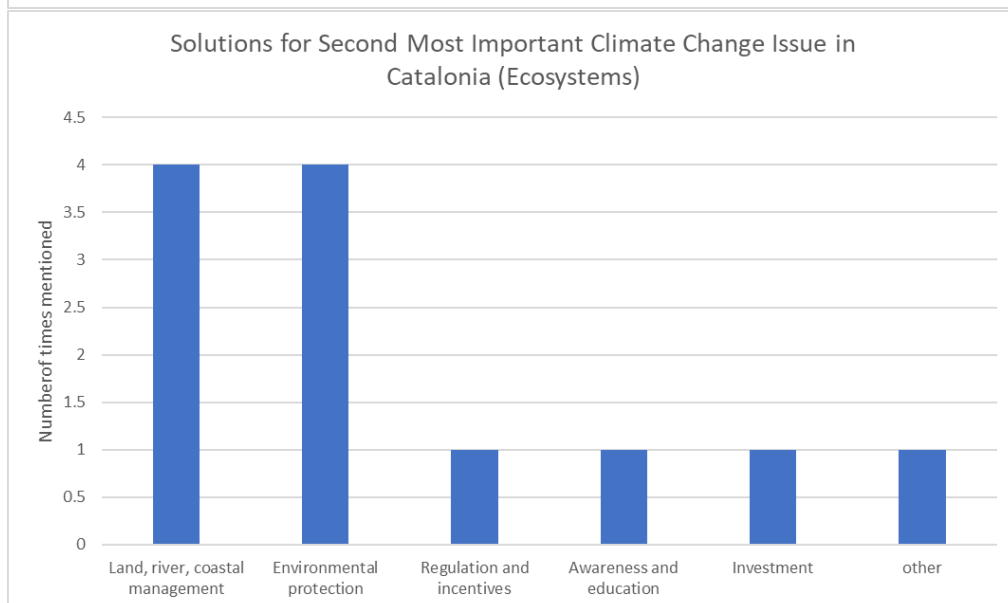
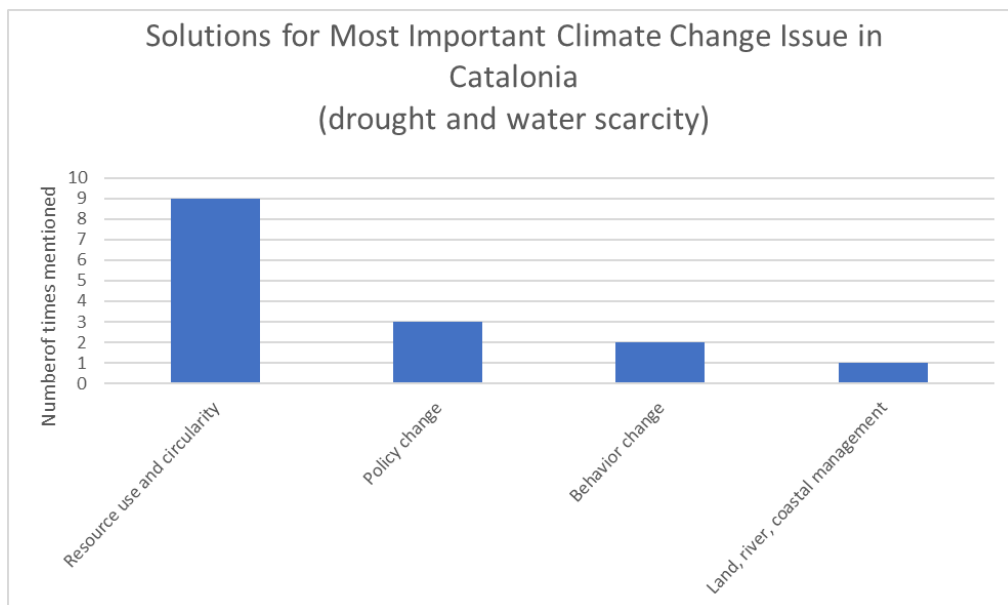
Survey respondents' demographics





Most important problems and solutions as perceived by survey respondents





List of Known Climate Change Initiatives

Community-led local strategies.
Custody areas of the territory, use of natural resources, recovery of dune areas
Regional strategy: Working table for Adaptation to Climate Change in Maresme, promoted by the Regional Council and the collaboration of CREAM.
1.No depopulation of rural areas 2.Management of forests 3.Management of air, terrestrial and marine pollutants
The initiatives I know are all in project/study, not implemented. Example: SUSTEBRE project to make the Ebro delta resilient in the medium term.
Adaptation plans to climate change at regional and local scale.
Adaptation and mitigation of the Ebro delta to the effects of climate change
Climate Plan, Climate Emergency Declaration, Urban Resilience, Green and Biodiversity Plan, Mar Bella Maritime Promenade Project and climate-related port reforms - Barcelona City Council
Aid to promote green energies (solar panels)



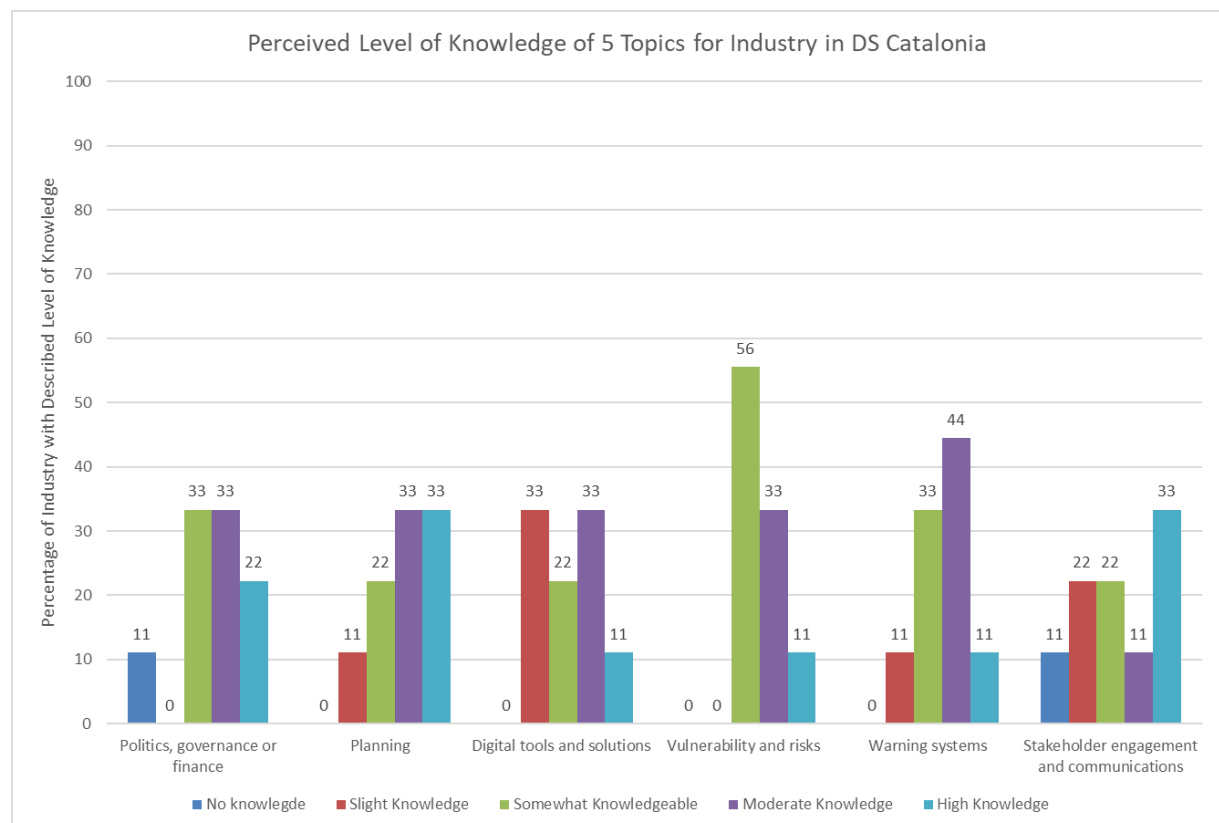
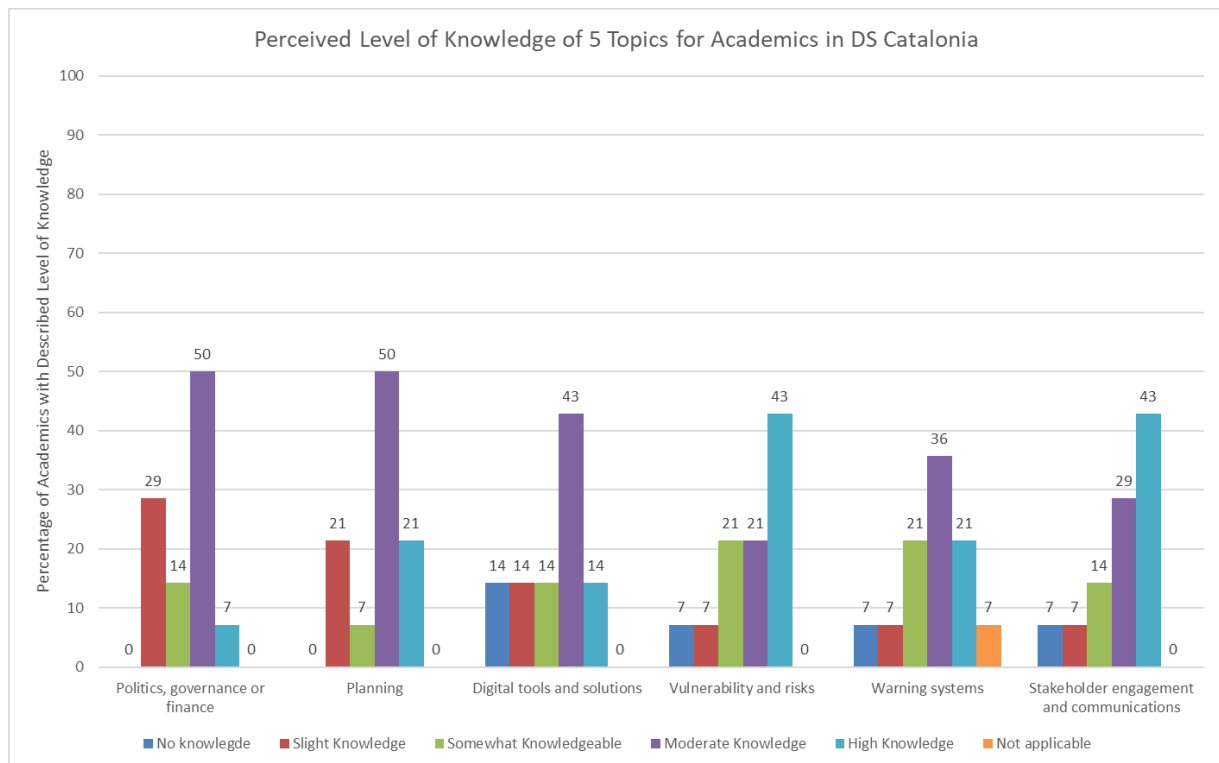
Companies to install green roofs on buildings, policies to encourage the use of public transport, funding to promote initiatives against climate change in Barcelona such as tenders to pay for 75% of a building's green roof or tenders for collaborative initiatives for specific programs against climate change in Barcelona.
Sustainable use of transport (bus-bike), bike lanes, water NGO
'Strategy for the protection of the coast considering the effects of climate change' of MITECO
Solar panels (subsidy), Electric cars subsidy, Citizen cleaning of forests, Tree planting, Recyclable product packaging Garbage separation Etc
In the coastal area, some strategies have been defined for specific areas and a strategy for the entire coast is being drafted. There are some actions that could be associated with the adaptation to the CC (eg the Pletera) although they are not specifically so.
With A LOCAL INITIATIVE for Barcelona's traffic problems.
GEPEC-EdC has created with a new methodology how to generate dunes in a more efficient way than pre-existing methods from marine remains that do not need to be removed from the beaches.
Plan Delta (Government of Spain) Proposal for a pilot test of sediment transfer in Riba-roja
PIMA adapts Coasts, Coastal Protection and Management Plan, Maresme Strategy, Ebro Delta Protection Plan
Local strategies and policies, pilot tests and governance spaces
Local Strategies: Sustainable Energy Action Plan and Manresa Sustainable Energy and Climate Action Plan
The County Council has a Plan that we are updating
Next generation programs
Barcelona is planned to have more trees and green areas in the city centre and fewer cars and more bike? paths.

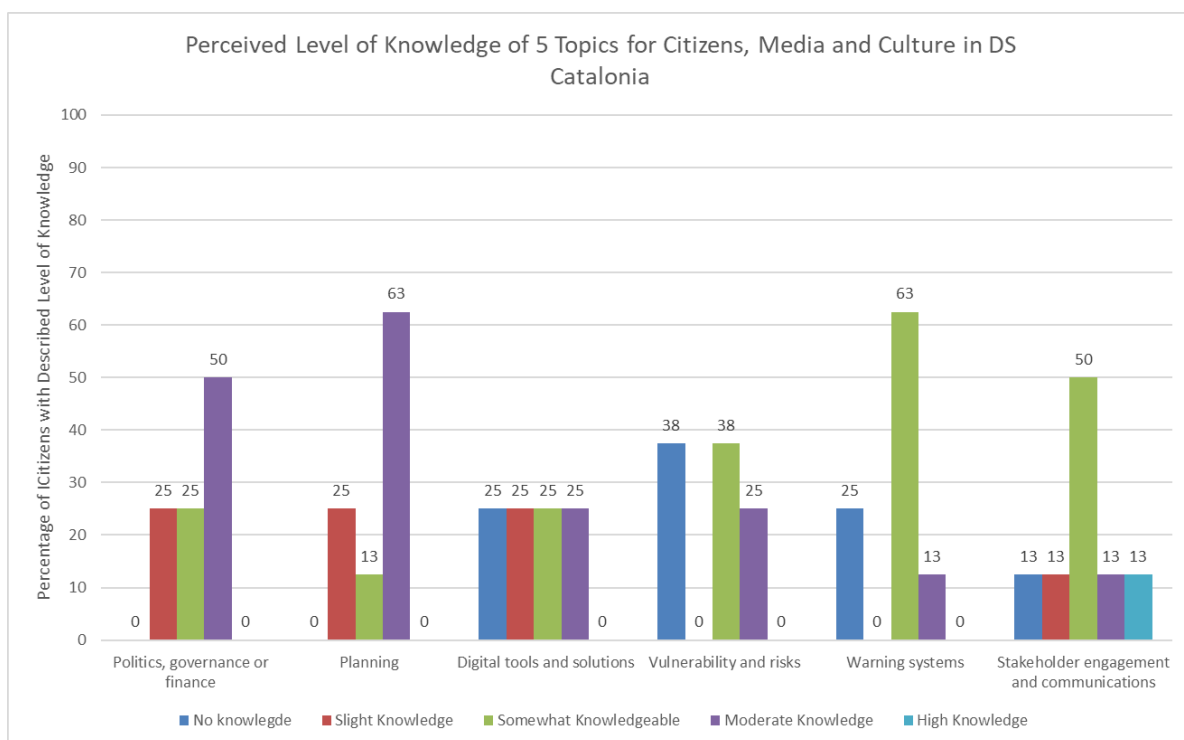
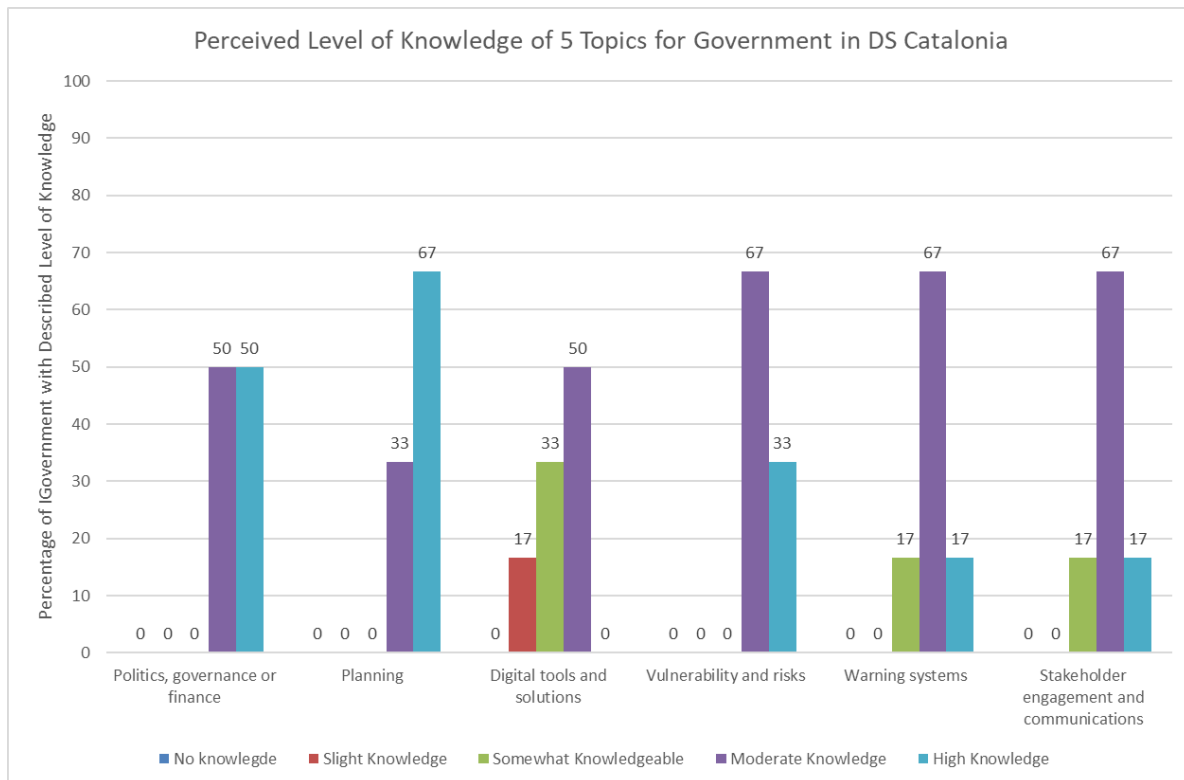
Stakeholders knowledge and perception on climate change

It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. For the Catalonia DS, there were:

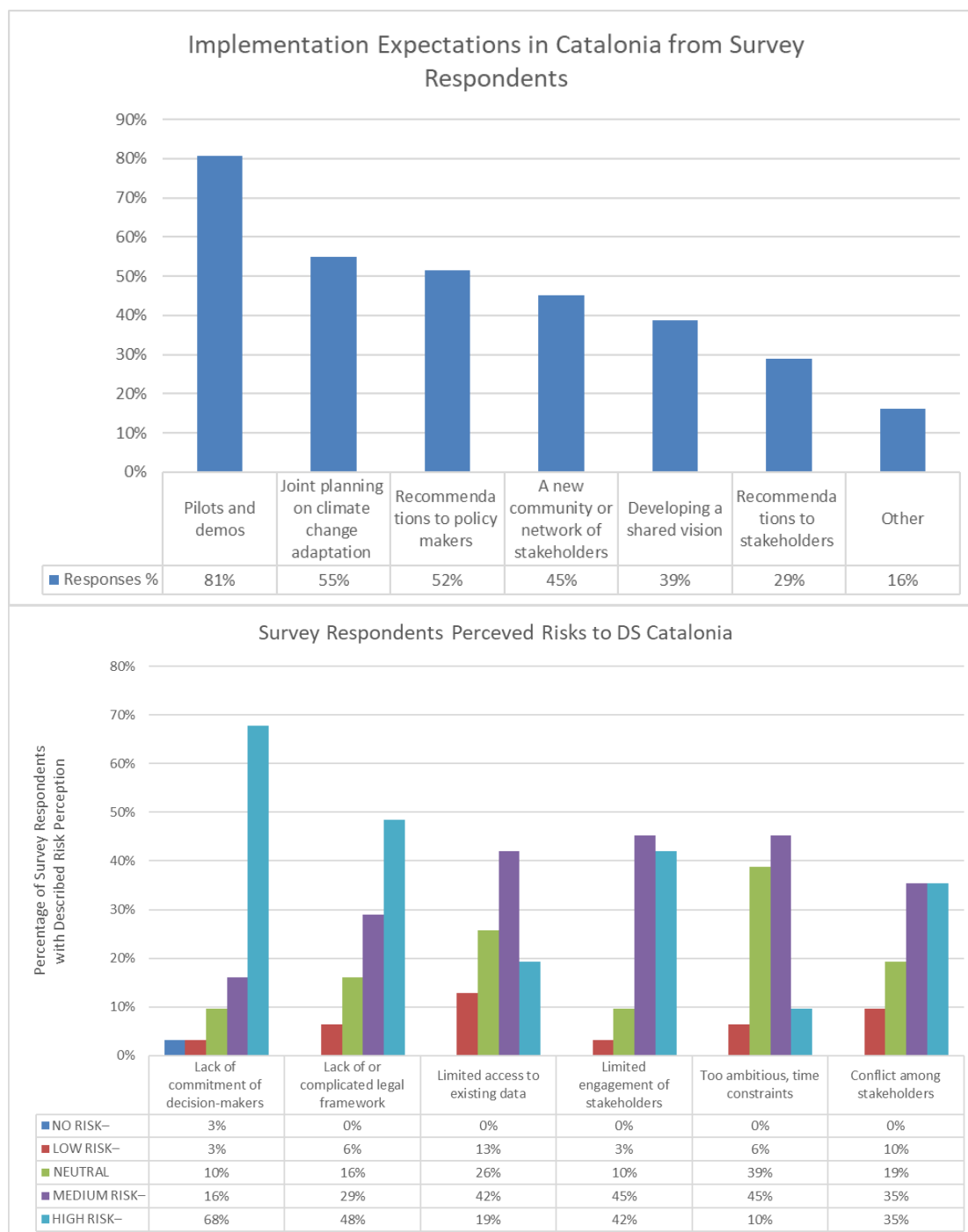
QH Type	Number of respondents on the question about knowledge and perception
Academia	11
Industry	7
Government	5
Citizens, media and culture	6
Other	4
Blanks	4

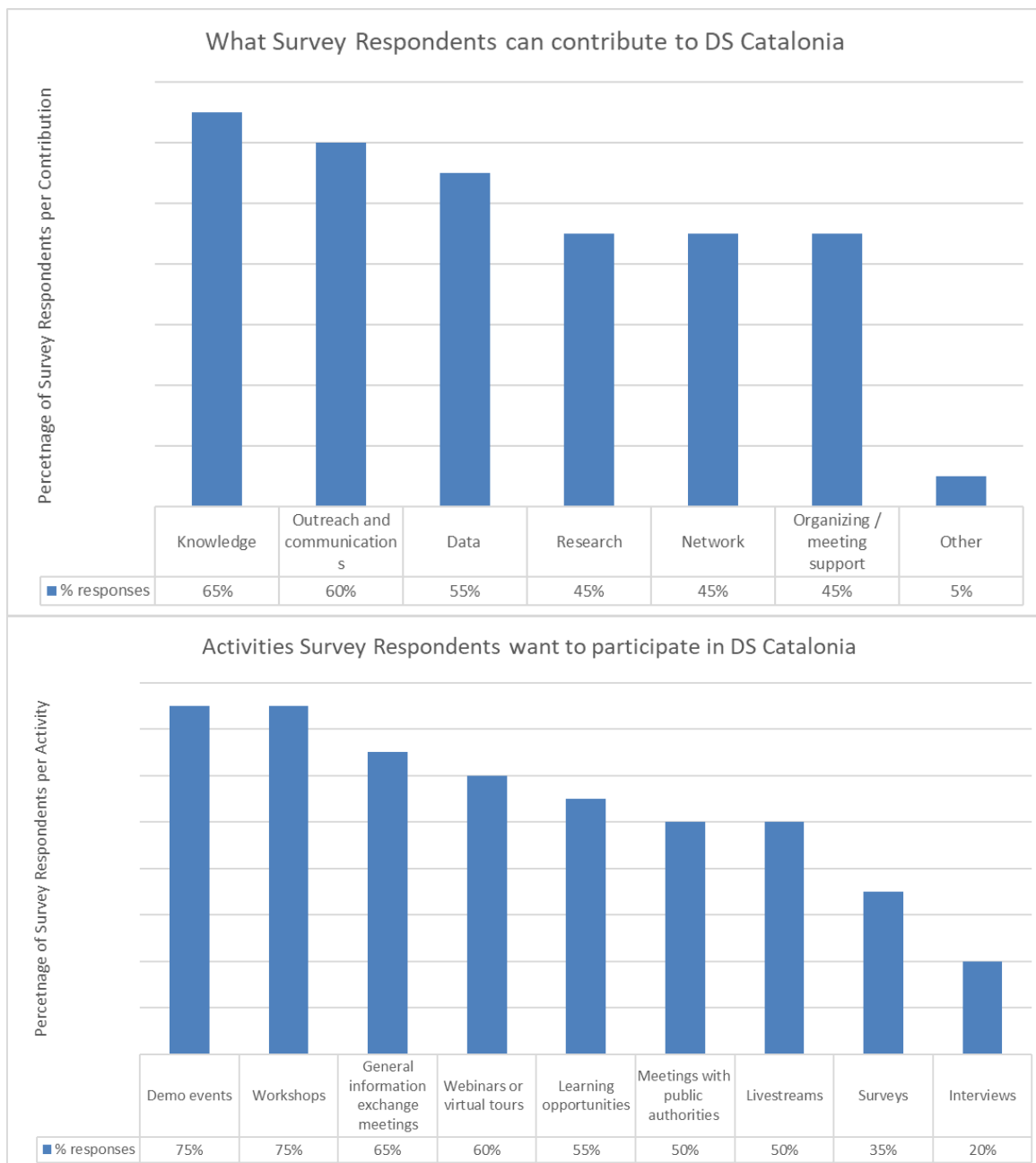




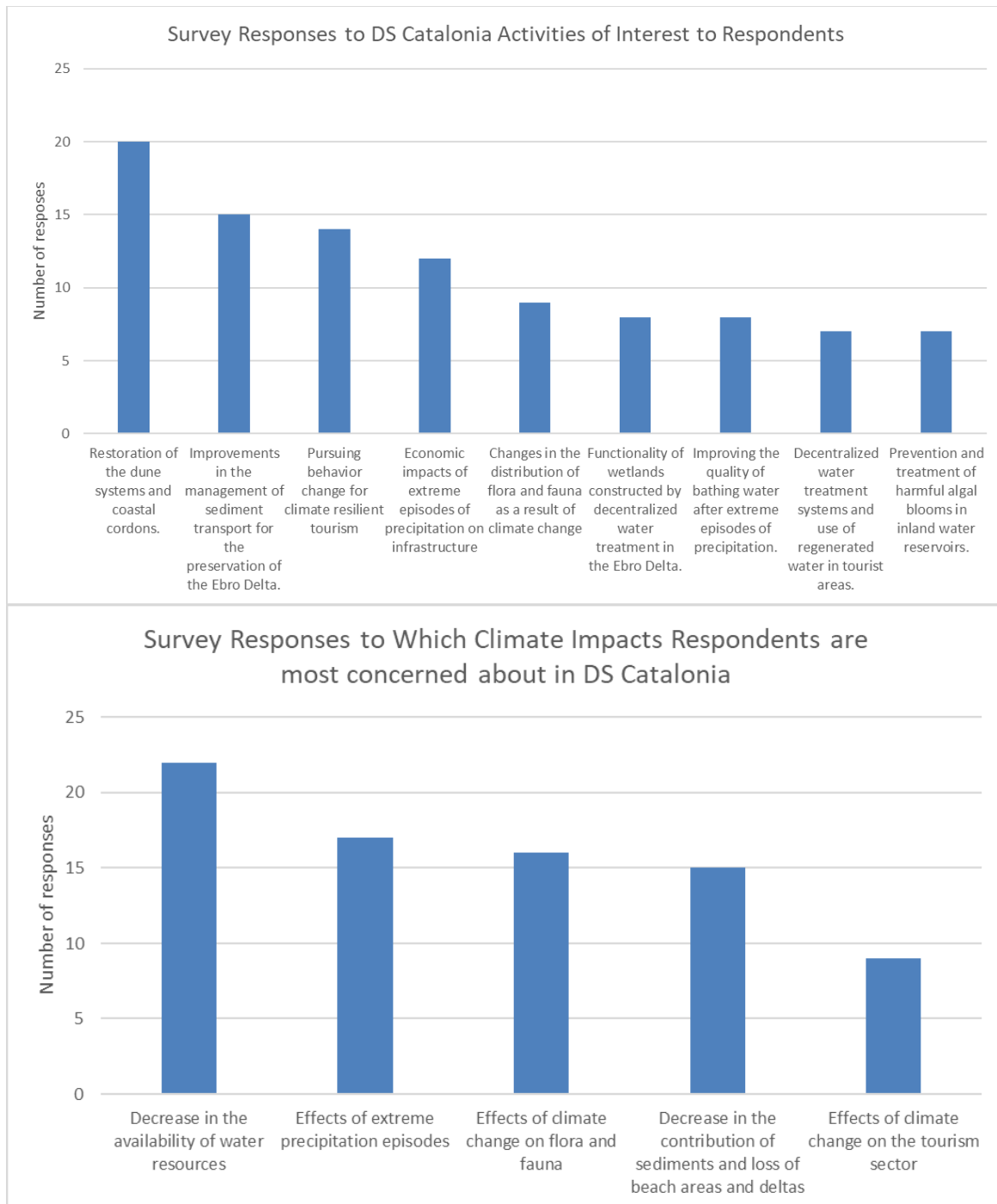


Stakeholders expectation and capacity to contribute to the IMPETUS project



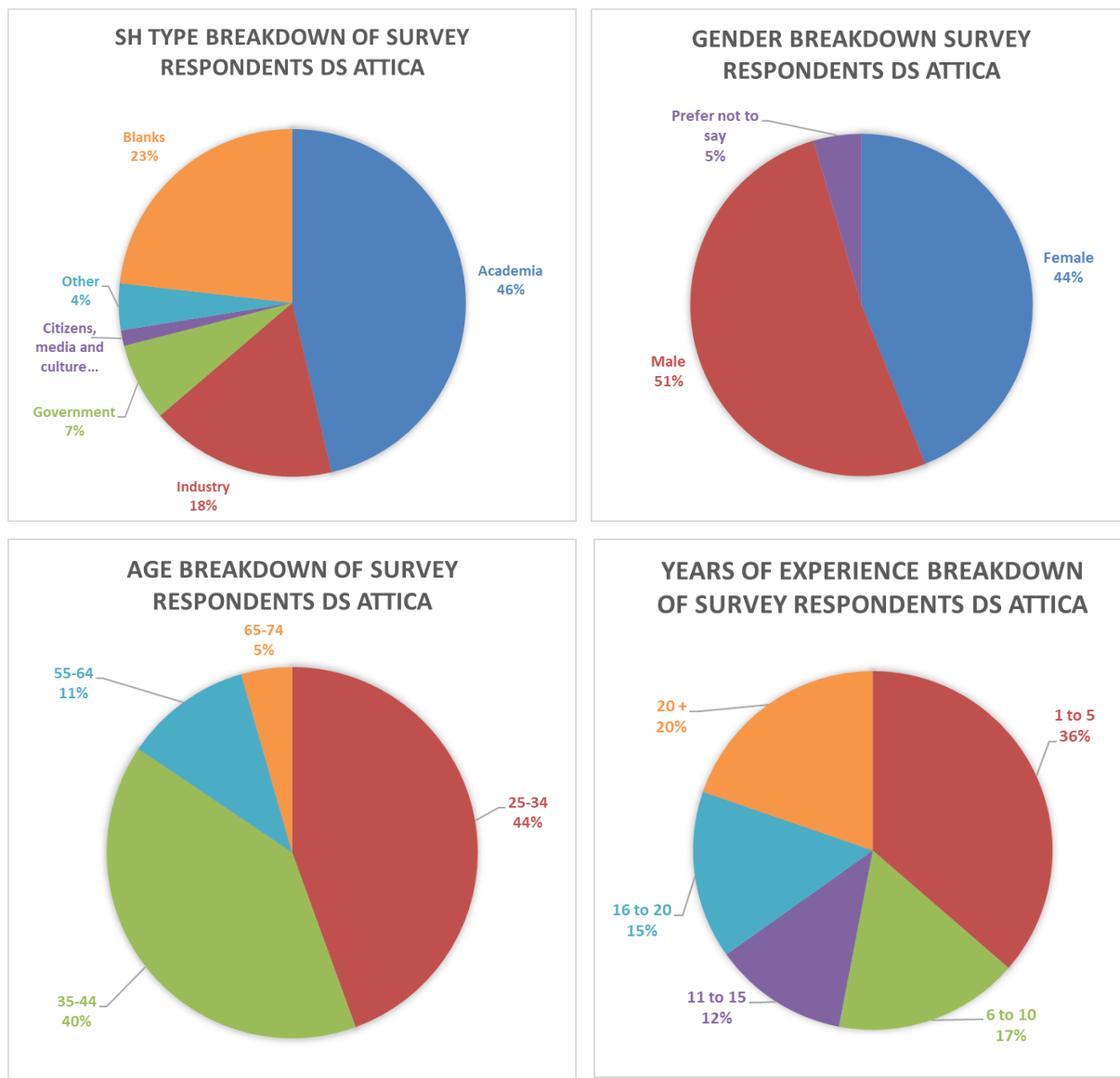


Additional tailored survey questions



DS3 Mediterranean – Attica

Survey respondent demographics

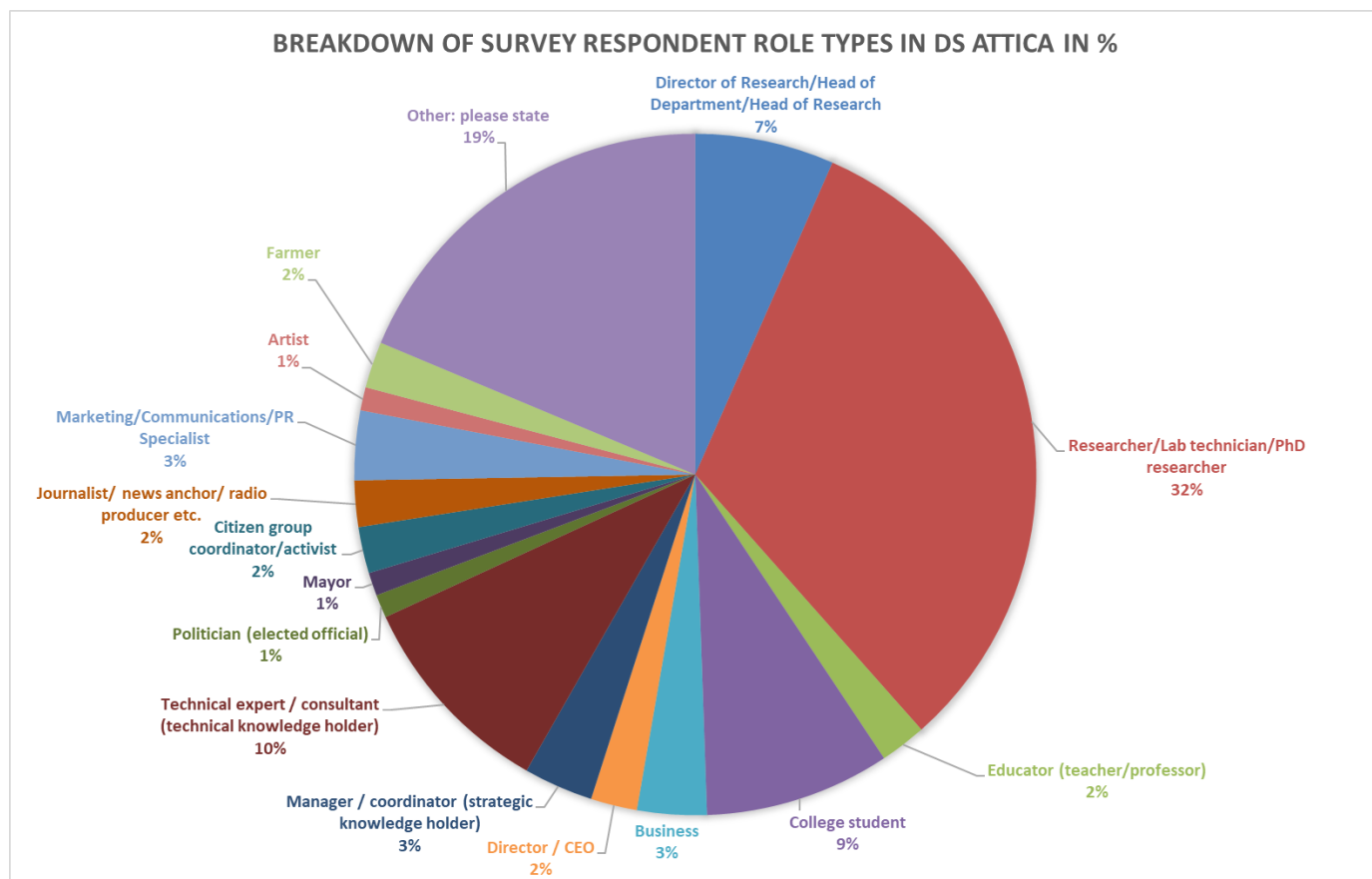


List of Survey Respondent Roles at their Organisations

Role Type	# of Respondents
Director of Research/Head of Department/Head of Research	6
Researcher/Lab technician/PhD researcher	29
Educator (teacher/professor)	2
College student	8
Businessman	3
Director / CEO	2
Manager / coordinator (strategic knowledge holder)	3
Technical expert / consultant (technical knowledge holder)	9
Politician (elected official)	1
Mayor	1



Citizen group coordinator/activist	2
Journalist/ news anchor/ radio producer etc.	2
Marketing/Communications/PR Specialist	3
Artist	1
Farmer	2
Other: please state	17



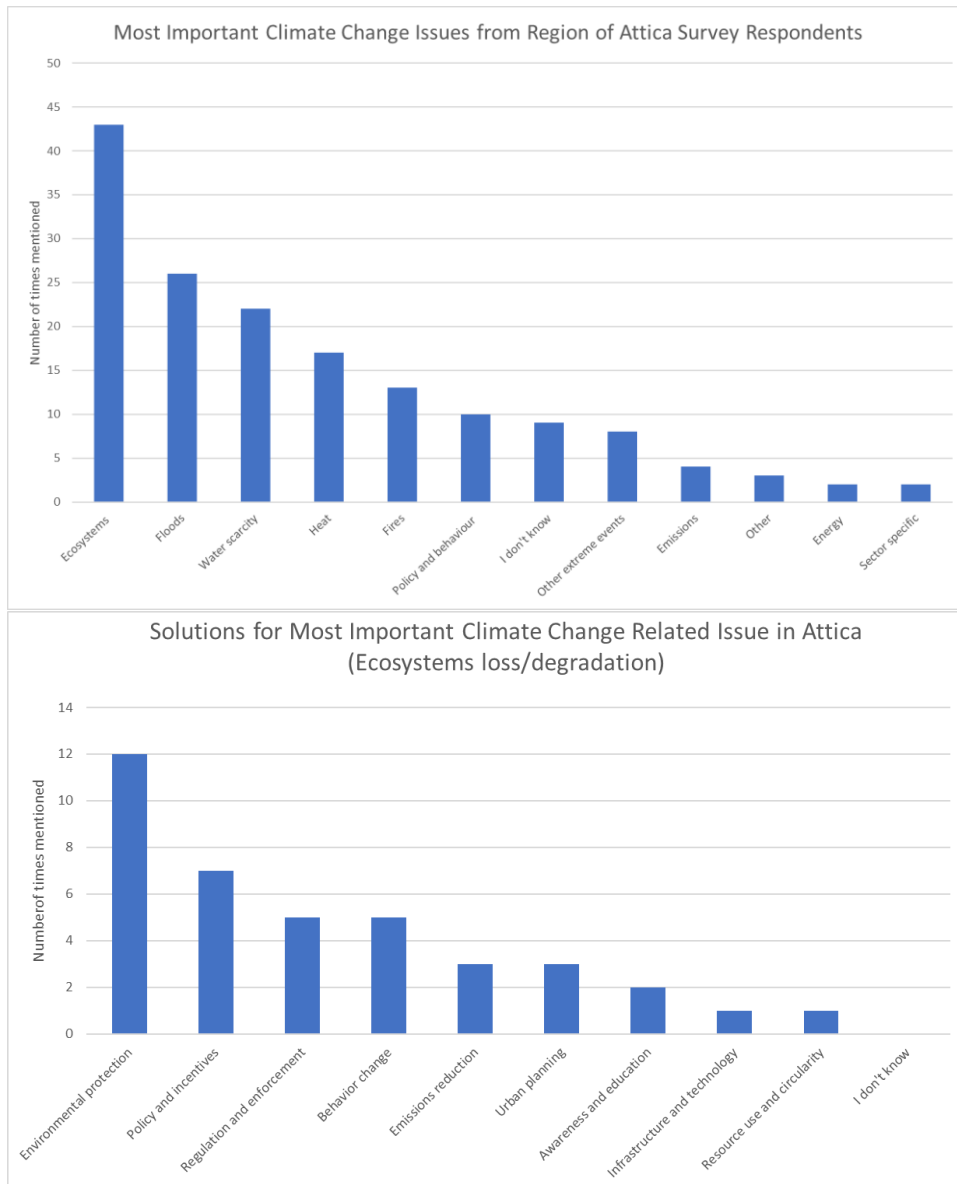
Other:

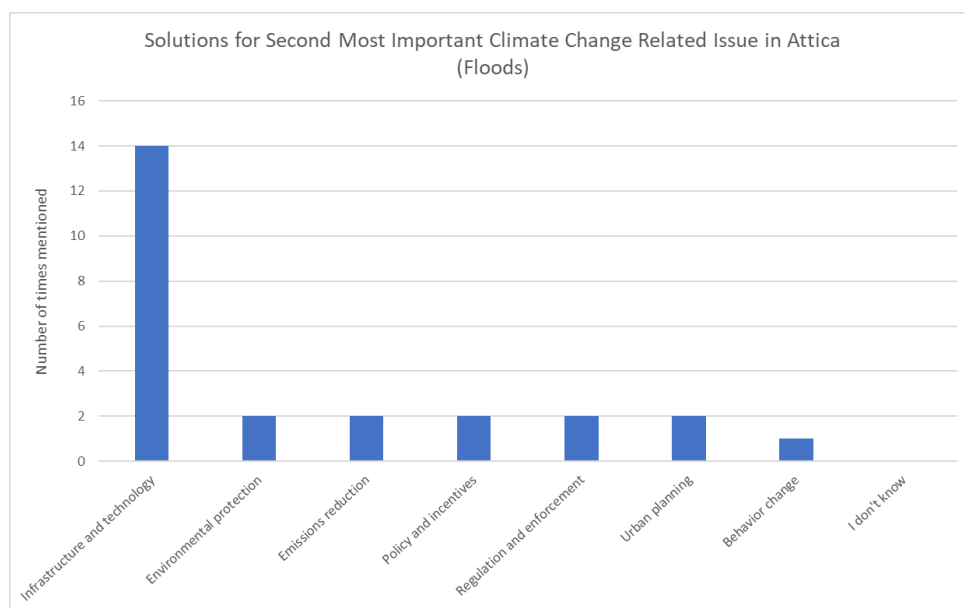
Duplicates removed - See the SH Register and survey data for specifics about each SH.

Employee
Project Development
Administrator
Environmental engineer
I do not work
Administrator
Municipal employee
Project manager
Board member
Project manager
IT Engineer



Most important problems and solutions as perceived by survey respondents in the Region of Attica





List of Known Climate Change Initiatives in the Region of Attica

Protection of the existing forest during the summer months
Regional strategies - National policies - citizen group initiatives
Initiatives by the Municipality and local communities to reforest the nearby stream of Kifissos.
Reforestation with the participation of schools, hikes in the forests to create a link between citizens and ecosystems. Building upgrades for energy savings.
There are multiple initiatives such as the proposed Climate Hub, legislative interventions, C40 and the Resilient Cities Catalyst, as well as all the commitments deriving from, for example, the Covenant of Mayors, but they are still fragmentary and in fact in Attica in particular incomplete.
Regional strategies towards sustainability Local plans for resilient cities in the climate crisis
Regional adaptation plans to KA, inclusion in the 100 resilient cities
Municipal actions: Recycling and bins for organic waste collection
Renewable sources in municipal lighting, plantings
100 Resilient Cities, Athens Climate Action Plan, PESPKA
Anti-flood projects, energy saving projects (e.g. Energy upgrading of buildings, low consumption vehicles, low pollution vehicles, etc.) RES projects.
C40, 100 Resilient Cities, UIA and central policies such as the promotion of electrification and building energy retrofit programs
100 RC, European programs (e.g. ARSINOI of the Municipality of Athens) too many citizen initiatives (e.g. Electra Energy, Organosis GI etc.),
Policy for resilient cities climate change adaptation measures local sustainability plans
Turn to RES
100 Resilient Cities, Regional Strategies, Citizen Initiatives
Regional strategies, 100 Resilient Cities, research projects
ZERO CO2 emission
Impetus Project
European programs in collaboration with Municipalities
Regional Climate Change Adaptation Plan for the Attica Region
LIFE-IP AdaptInGR project Regional climate change adaptation plans. SDAEK Network CLIMPACT 100 Resilient Cities Climate KIC GR

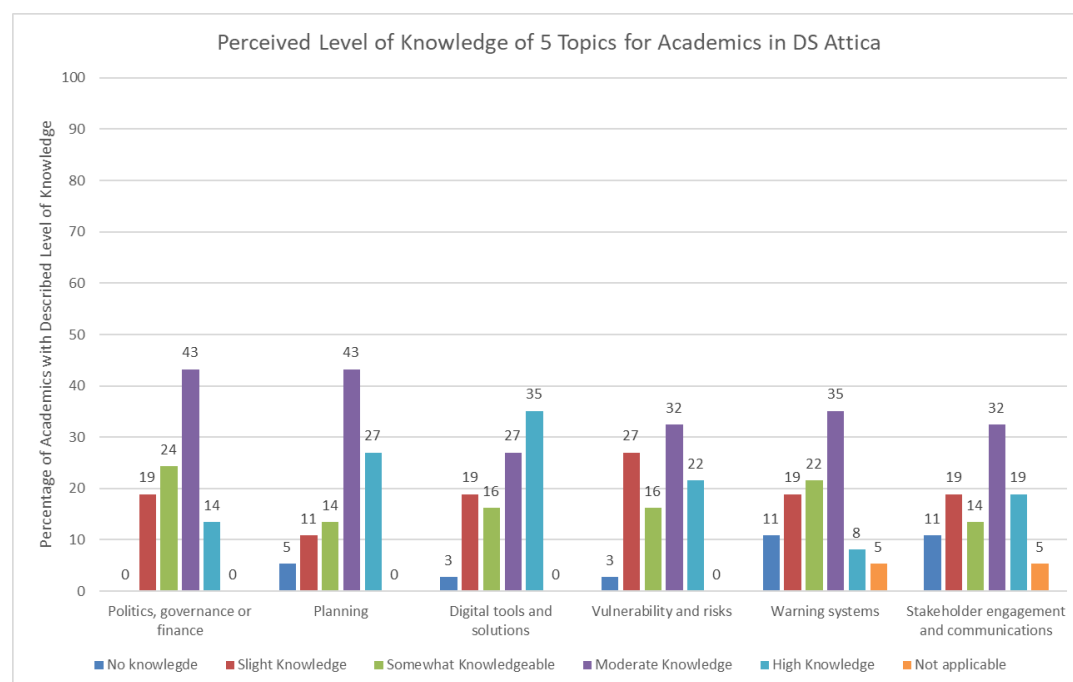


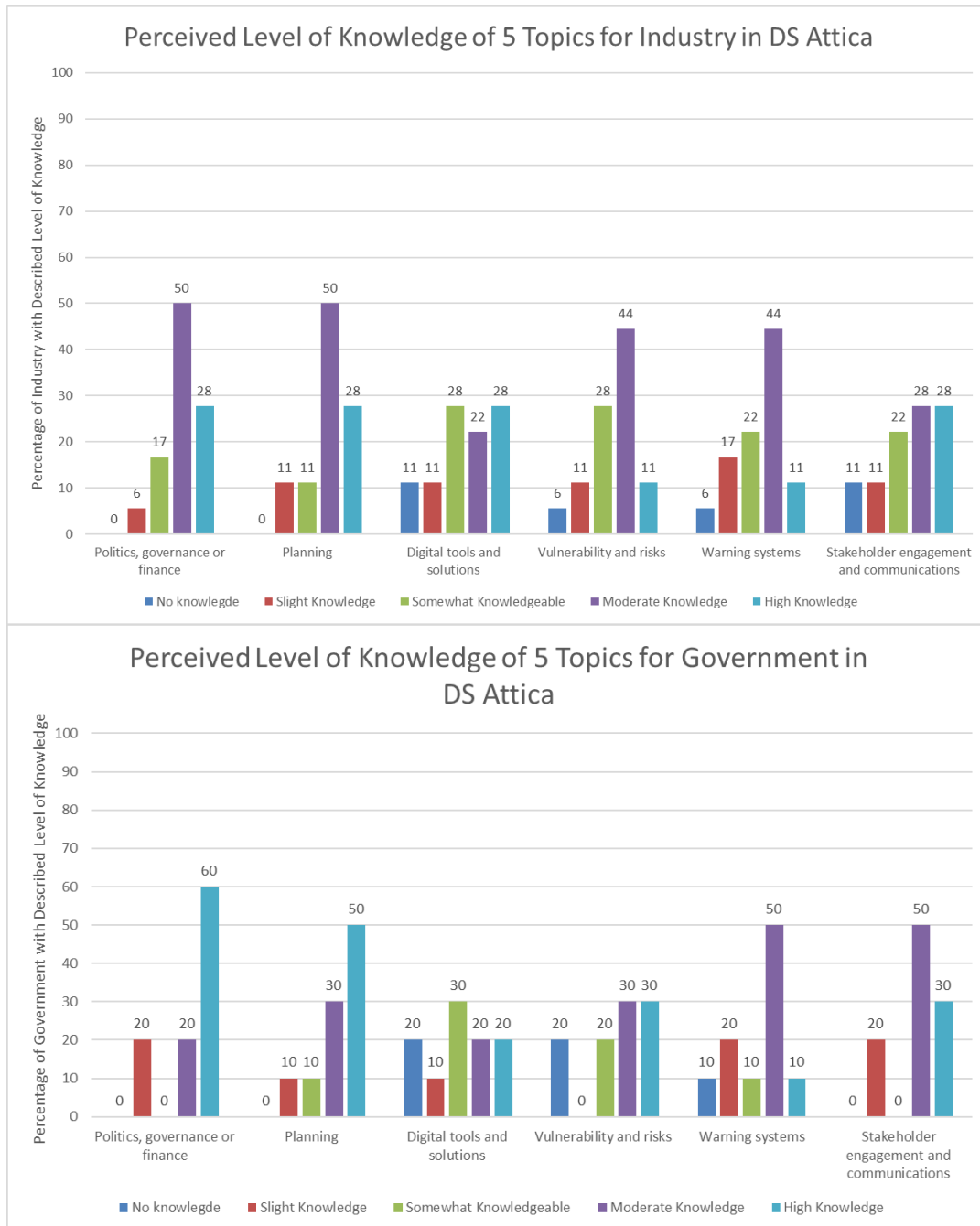
Municipal initiatives for tree planting, study and implementation of SBAK by the municipality, attempt to reduce traffic by car. Solar panels in unexploited areas of the municipality.
Regional Climate Change Adaptation Plan
Resilient Cities, RES Development, Circular Economy Actions
National strategy -ADAPTinGREECE LIFE IP: Boosting the implementation of adaptation policy across Greece Many small local initiatives (Pocket parks)

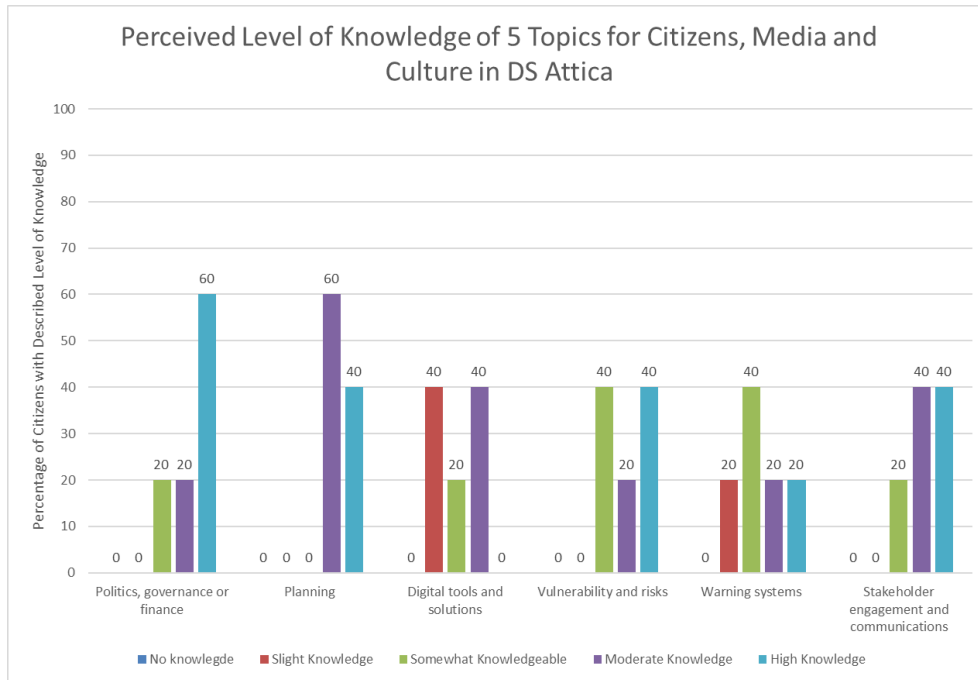
Stakeholders knowledge and perception on climate change per Quintuple Helix Stakeholder Group

It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. For the Attica DS, there were:

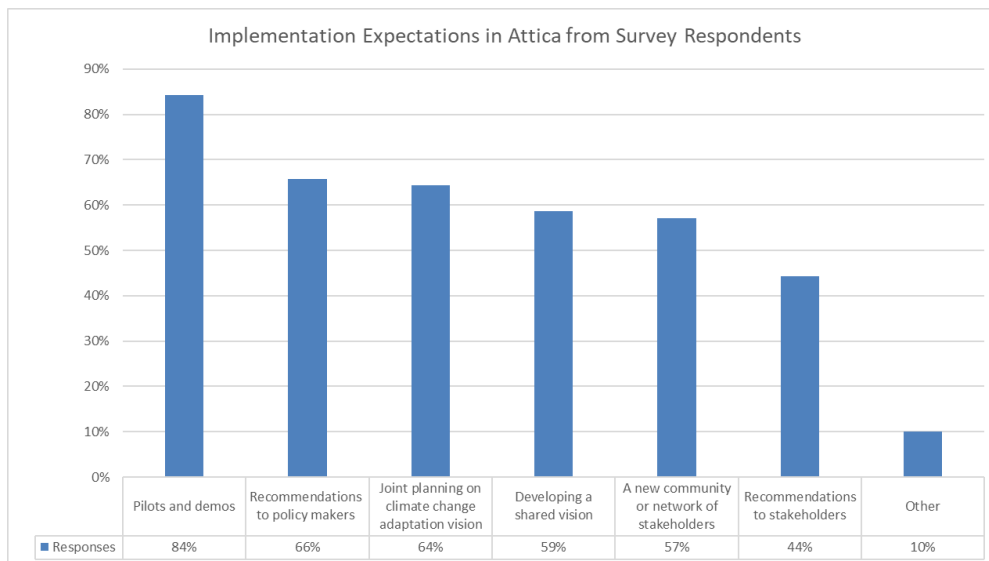
QH Type	Number of respondents on the question about knowledge and perception
Academia	32
Industry	12
Government	5
Citizens, media and culture	1
Other	3
Blanks	16

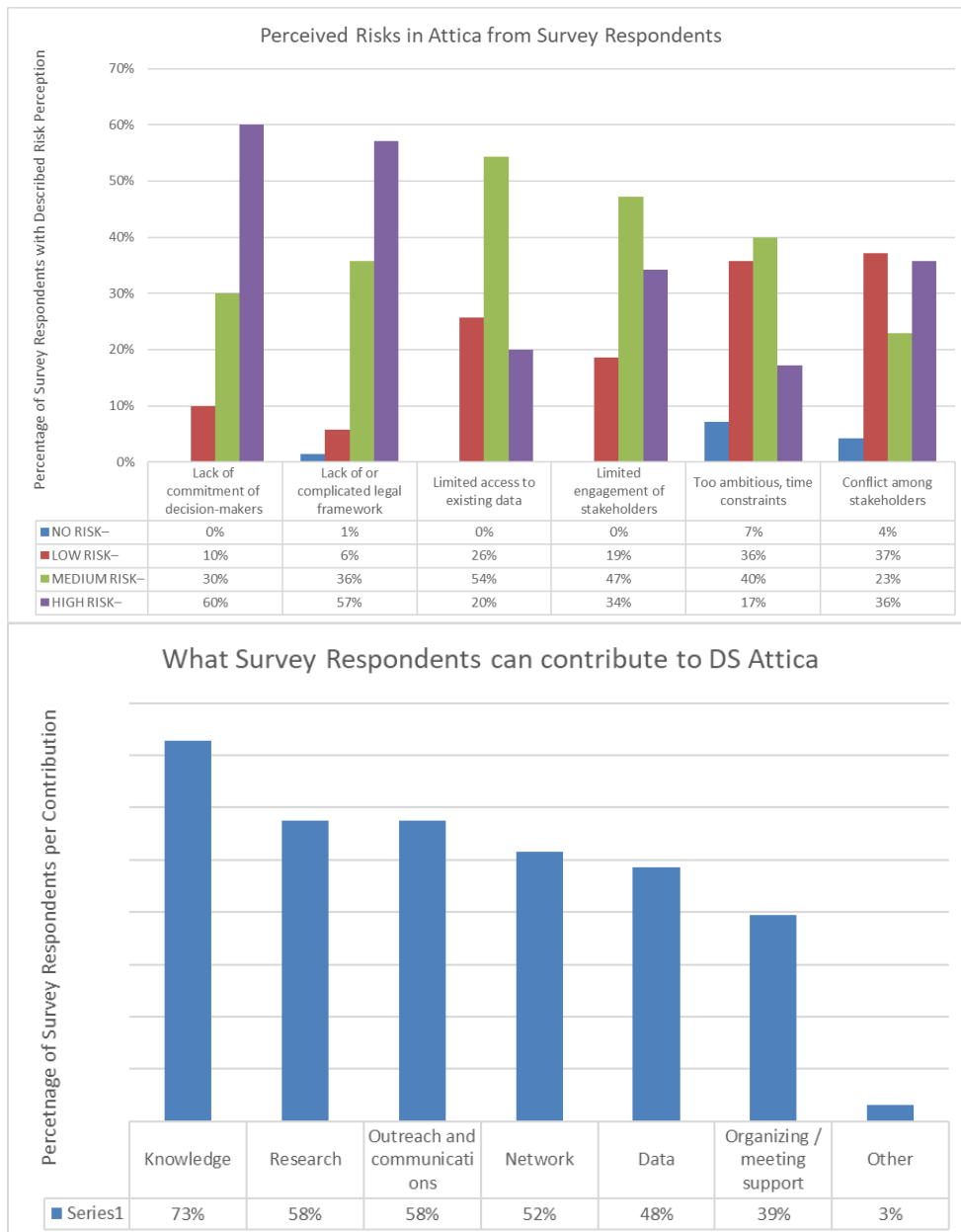


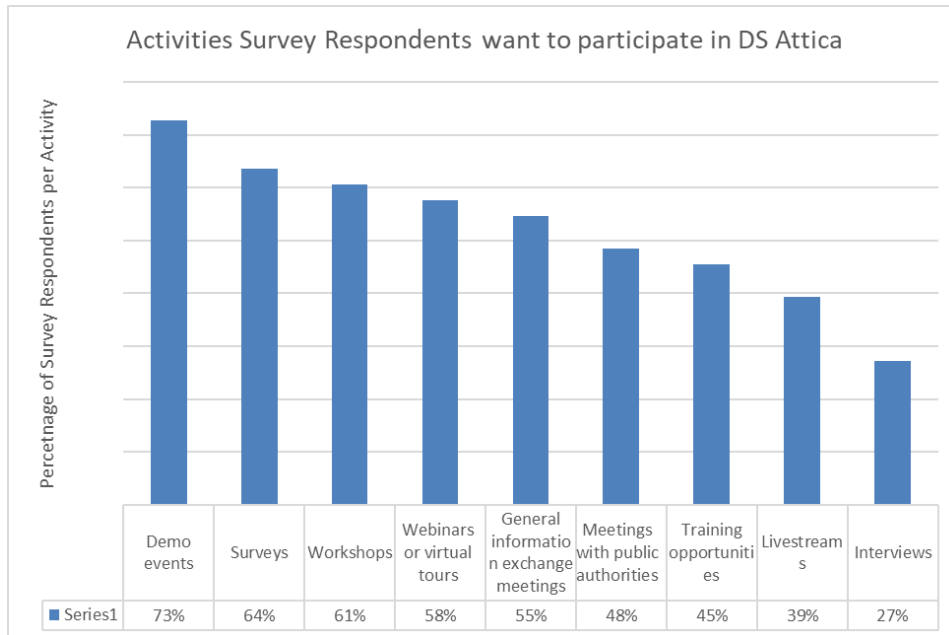




Stakeholders expectation and capacity to contribute to the IMPETUS project

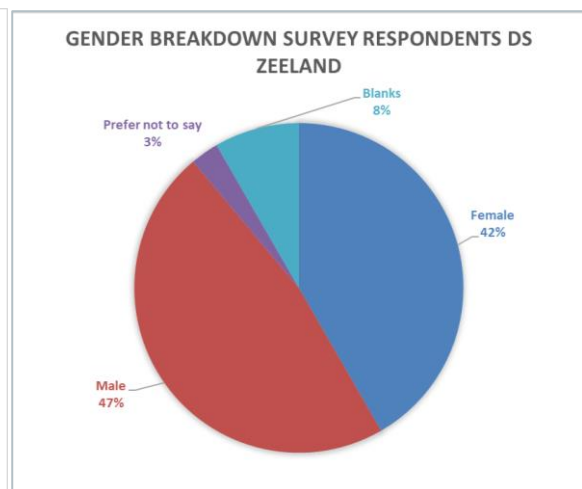
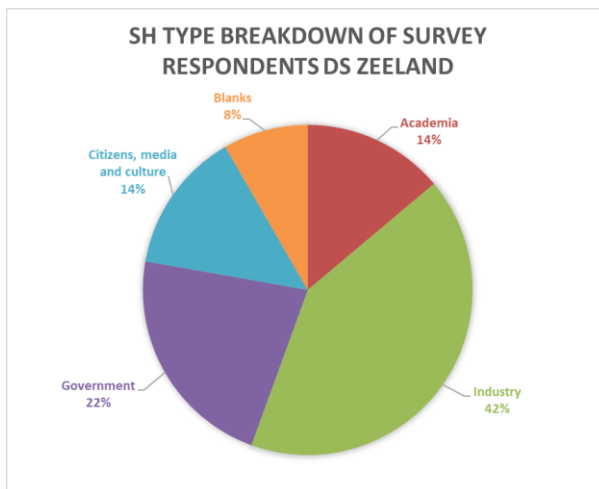


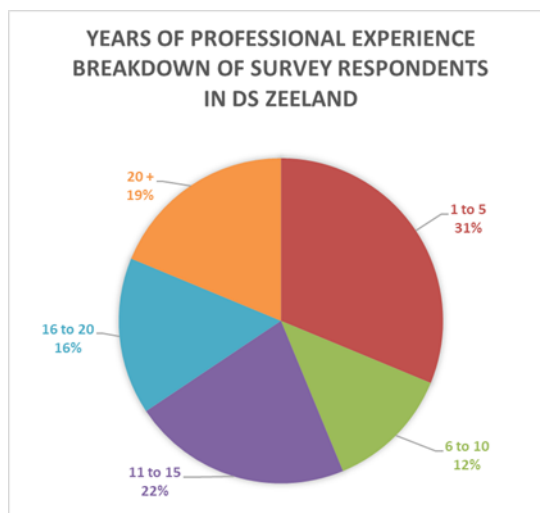
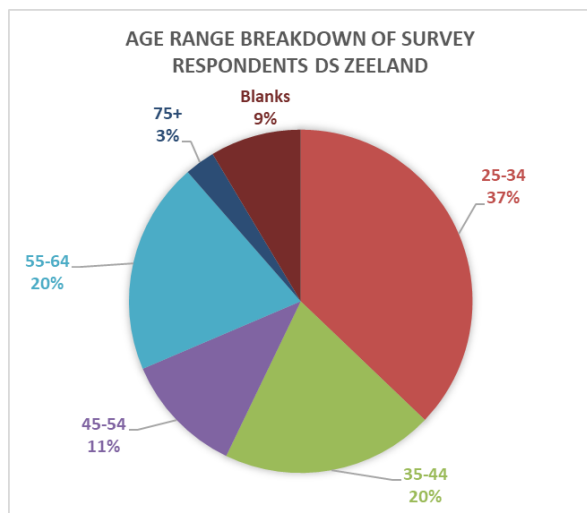




DS4 Atlantic – Zeeland

Survey respondents demographics

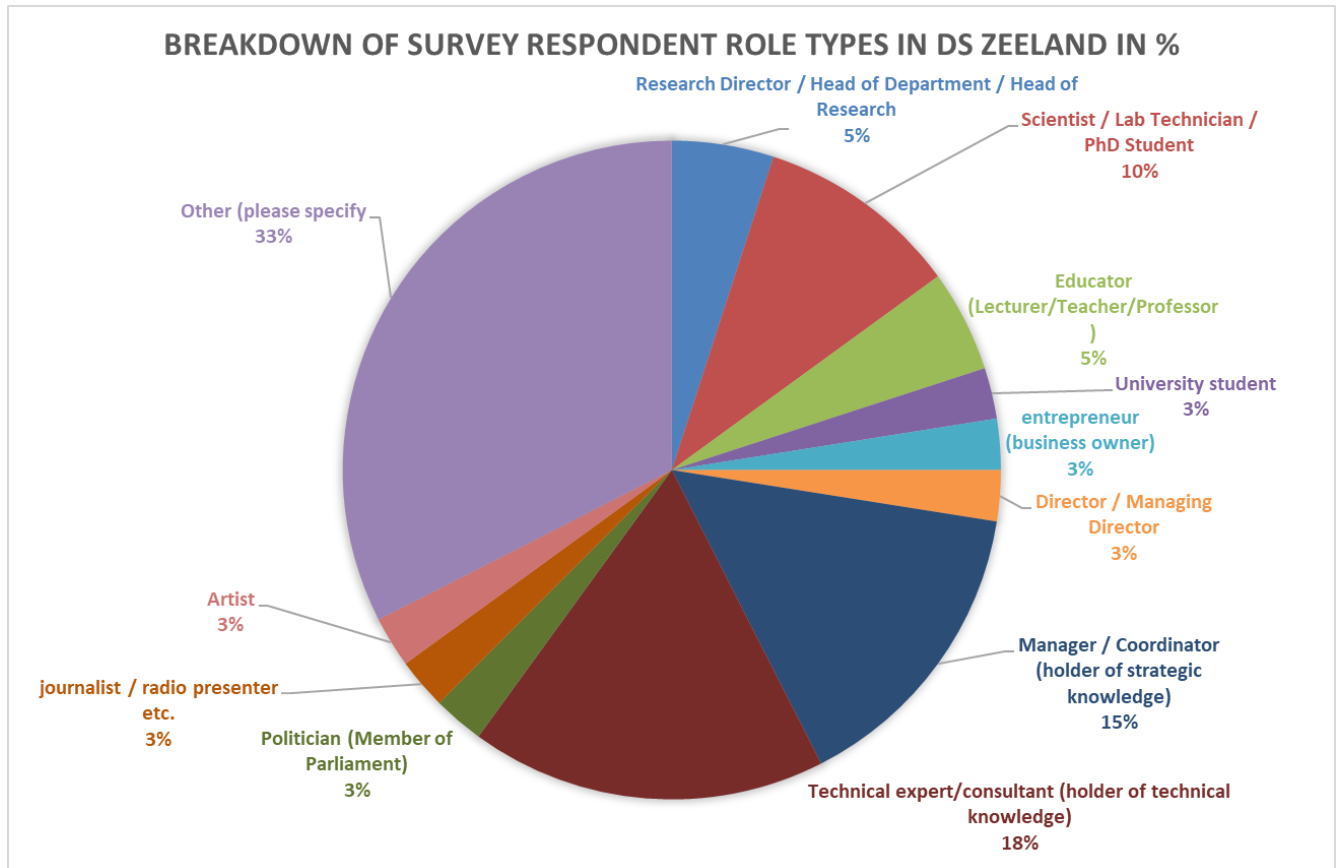




List of Survey Respondent Roles at their Organisations

Role	Numbers
Research Director / Head of Department / Head of Research	2
Scientist / Lab Technician / PhD Student	4
Educator (Lecturer/Teacher/Professor)	2
University student	1
Entrepreneur (business owner)	1
Director / Managing Director	1
Manager / Coordinator (holder of strategic knowledge)	6
Technical expert/consultant (holder of technical knowledge)	7
Politician (Member of Parliament)	1
Mayor	0
Leader of a civic group/activist	0
Journalist / radio presenter etc.	1
Marketing/Communication/Public Relations Specialist	0
Artist	1
Farmer	0
Other (please specify)	13



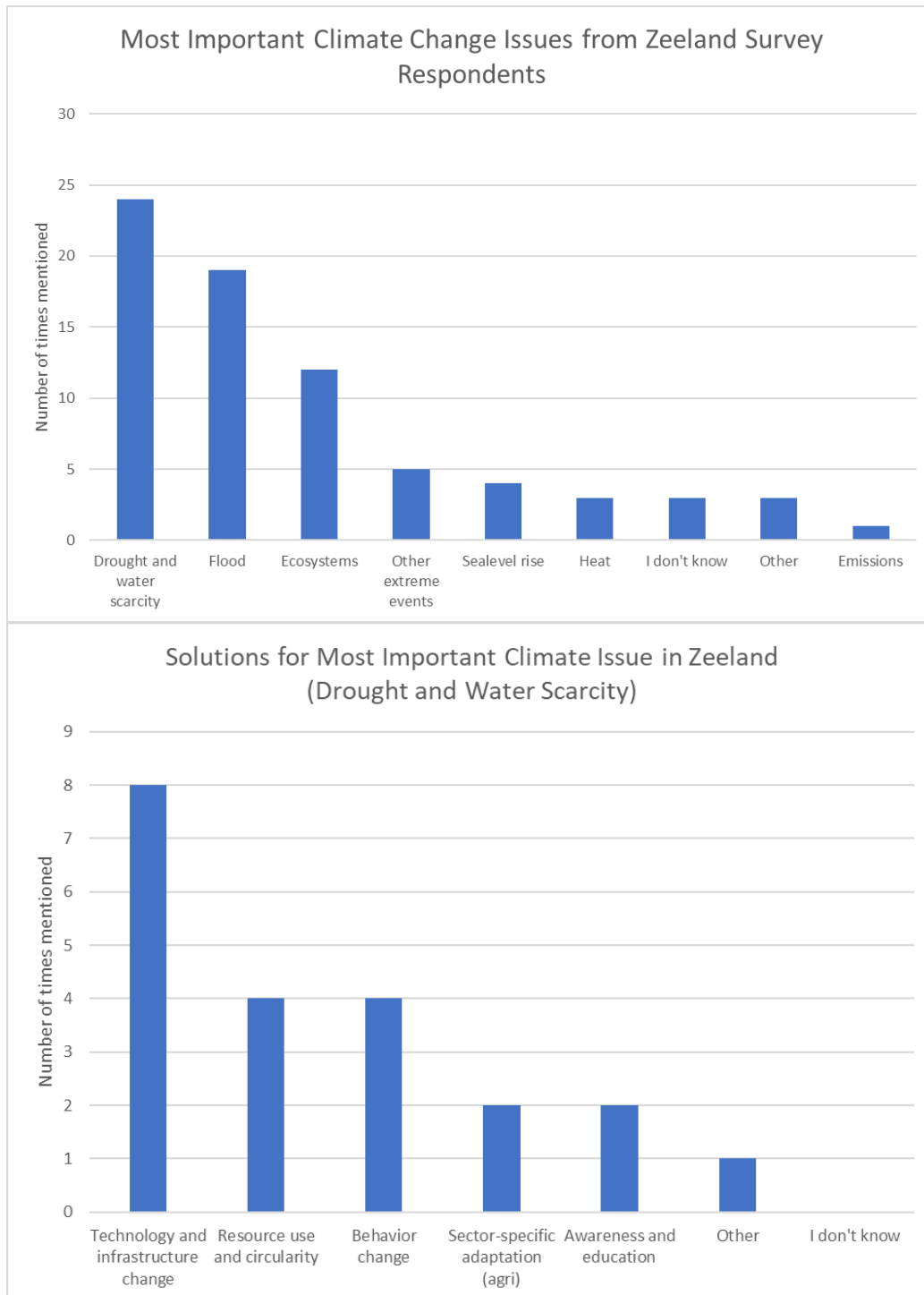


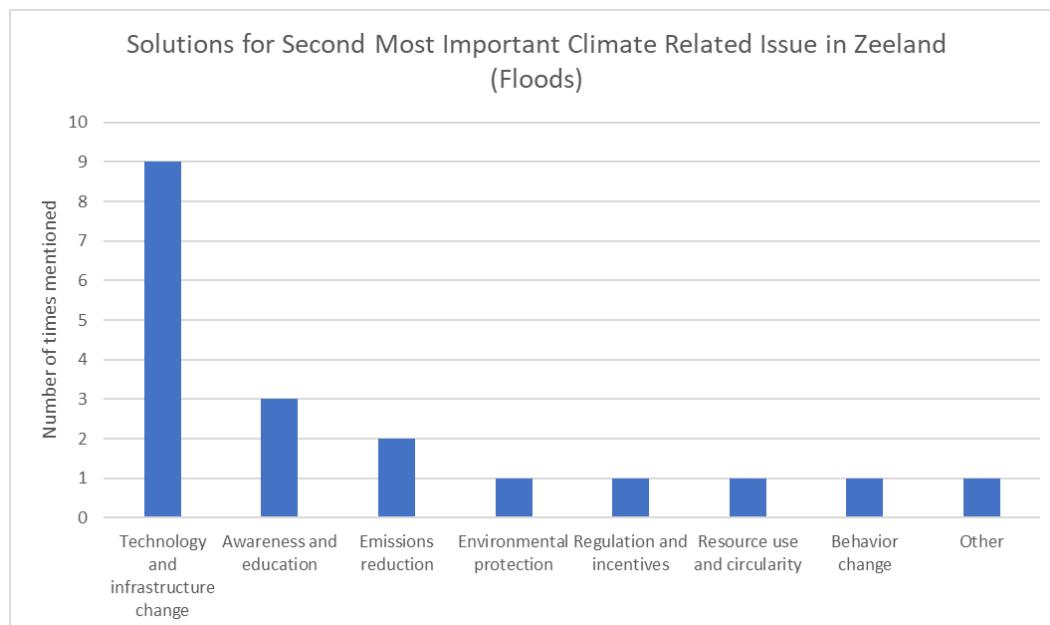
Other:

Duplicates removed - See the SH Register and survey data for specifics about each SH.

Registry of the City Council of Rotterdam
Psychologist
Project engineer
Policy officer
Retired
Mental disability supervisor level 5
Project manager
Strategic advisor
BI Data Analyst
Administration

Most important problems and solutions as perceived by survey respondents





List of Known Climate Change Initiatives

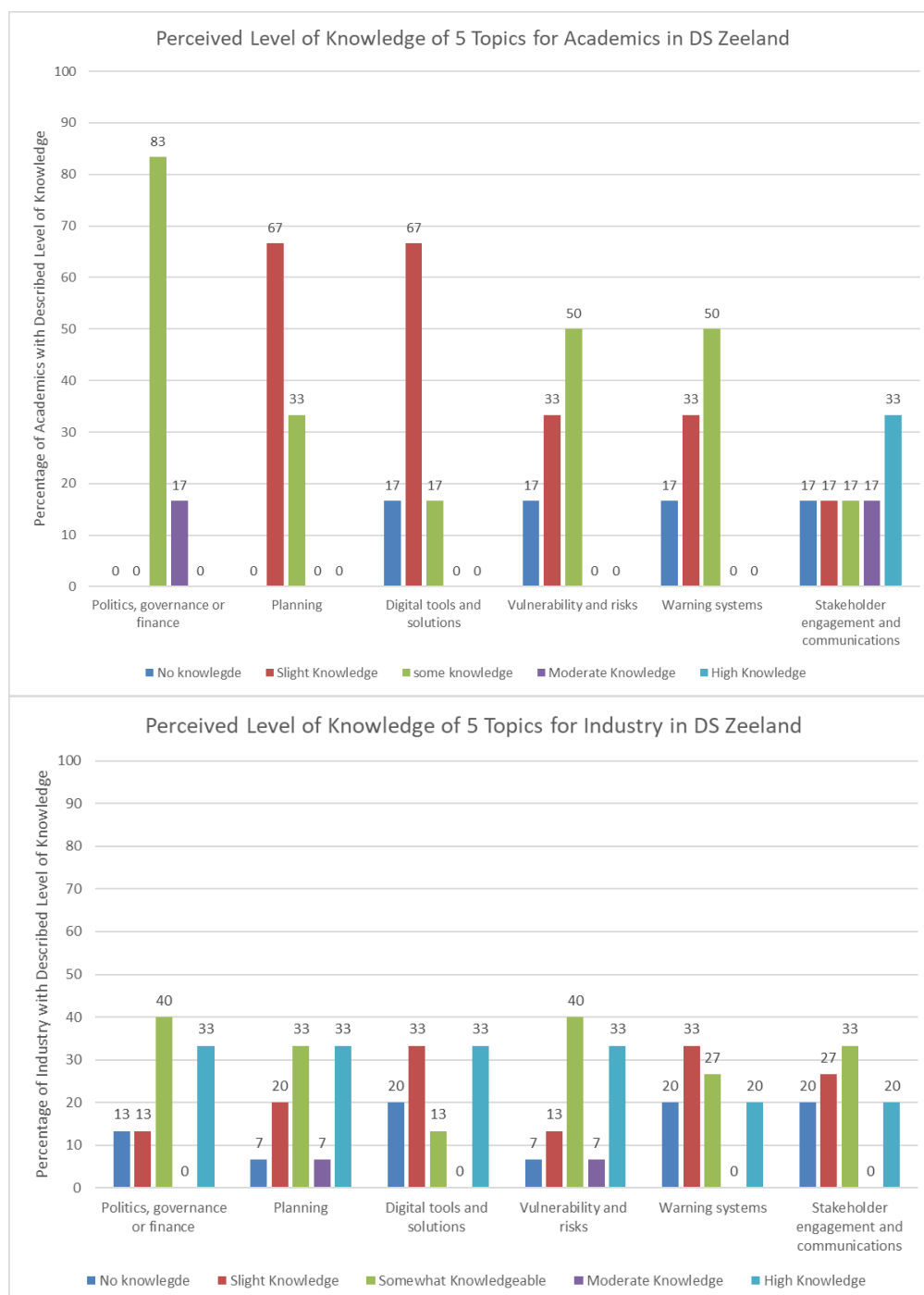
Water buffer squares
NK Tegelwippen, 100 days waste-free, municipal climate adaptation strategy Rotterdam
Next-generation residential areas
Rotterdam climate approach, CCI participation in Rotterdam, CO2 storage North Sea, climate agreement, warm pump subsidy.
Very local: many tiles are removed and facades are laid out. The district council provides a subsidy for this.
Involved in the Climate Adaptation Strategy Zeeland, Rotterdams Weerword and Climate-Powered Delfland.
Wind, solar energy etc
Resident actions, simulation scheme, regional cooperation and (https://www.rivus.net/actueel/nieuwsbericht/2021/climate adaptation/) (https://sway.office.com/li6kKjTghlI8Gvry?ref=Link&loc=play)
Regional: Dutch Championship tile seesaws. Local: 50 shades of green Assendorp
Knowledge base Climate adaptation Schouwen Duiveland Polder2Cs Reply Rotterdam
KasZ, drain store, testing ground for fresh water, Cool towns, green schoolyards
Solar panels wind energy
Installation of heat pumps solar cells windmills Replacing natural gas with hydrogen gas in the production of ammonia
Dyke elevation / monitoring Less meat campaign . By bike to work , better public transport , we have train or tram !
Climate knowledge base, climate adaptive layout/design, dialogues, pilots with water buffer and innovative cultivation, etc.
Living lab Schouwen-Duiveland / Freshwater breeding ground Schouwen-Duiveland
Delta plan Flanders
Implementation agendas with DPRA working regions
Delta Program Spatial Adaptation, with stress tests and risk dialogues in all municipalities - Stress test own assets - Knowledge program Sea level rise
Drafting provincial strategy, local climate dialogues and initiatives to preserve biodiversity
Blue City, Amsterdam circular economy
100 Resilient Cities Rotterdam, Rotterdam water square, dunes, etc.

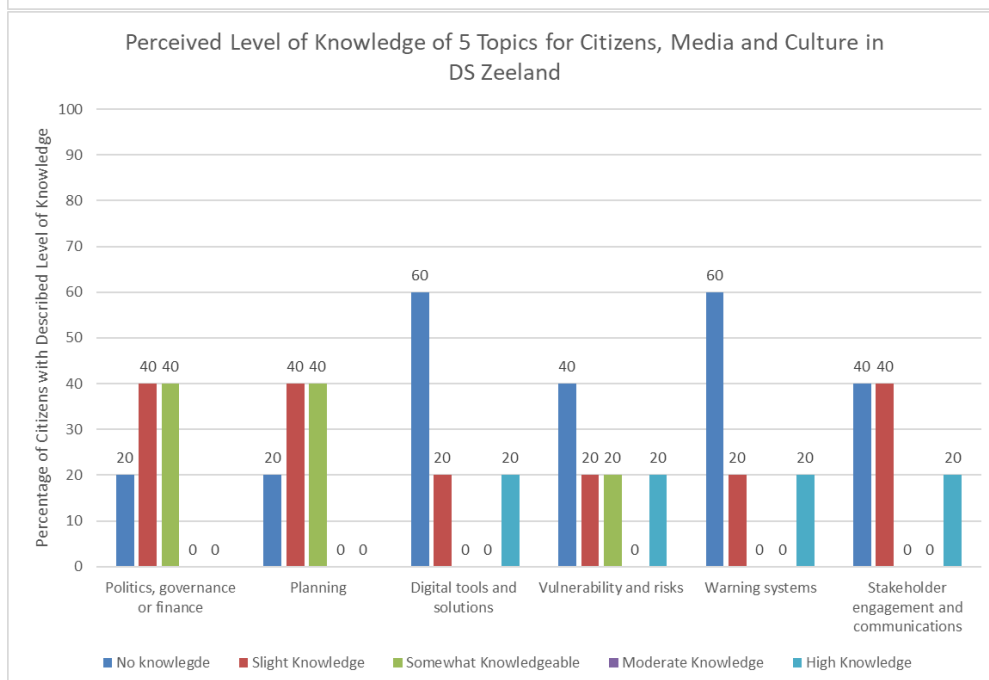
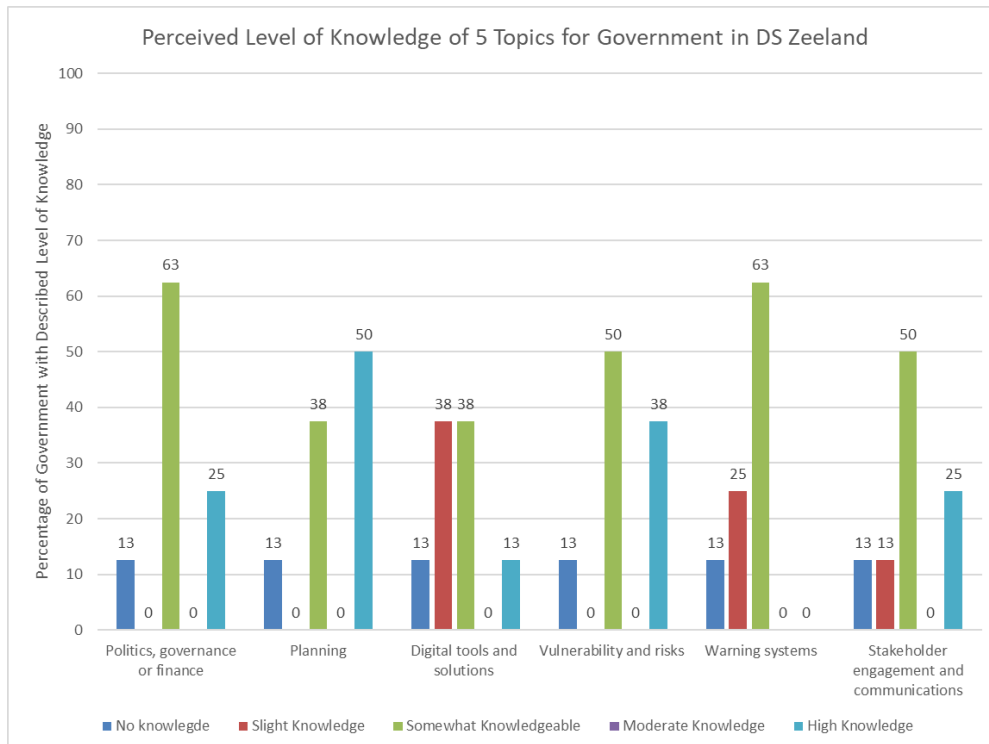


Stakeholders knowledge and perception on climate change

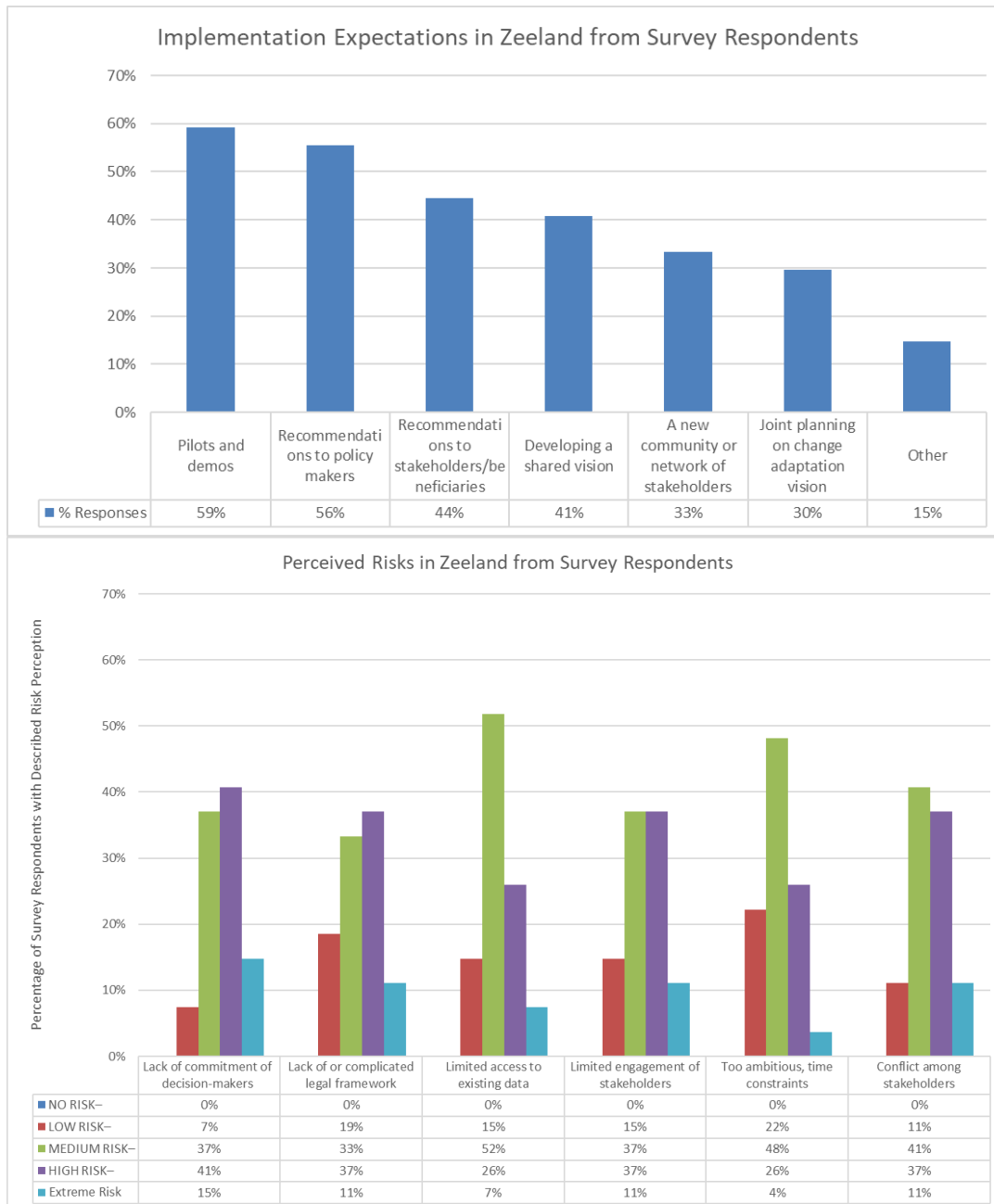
It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. For the Zeeland DS, there were:

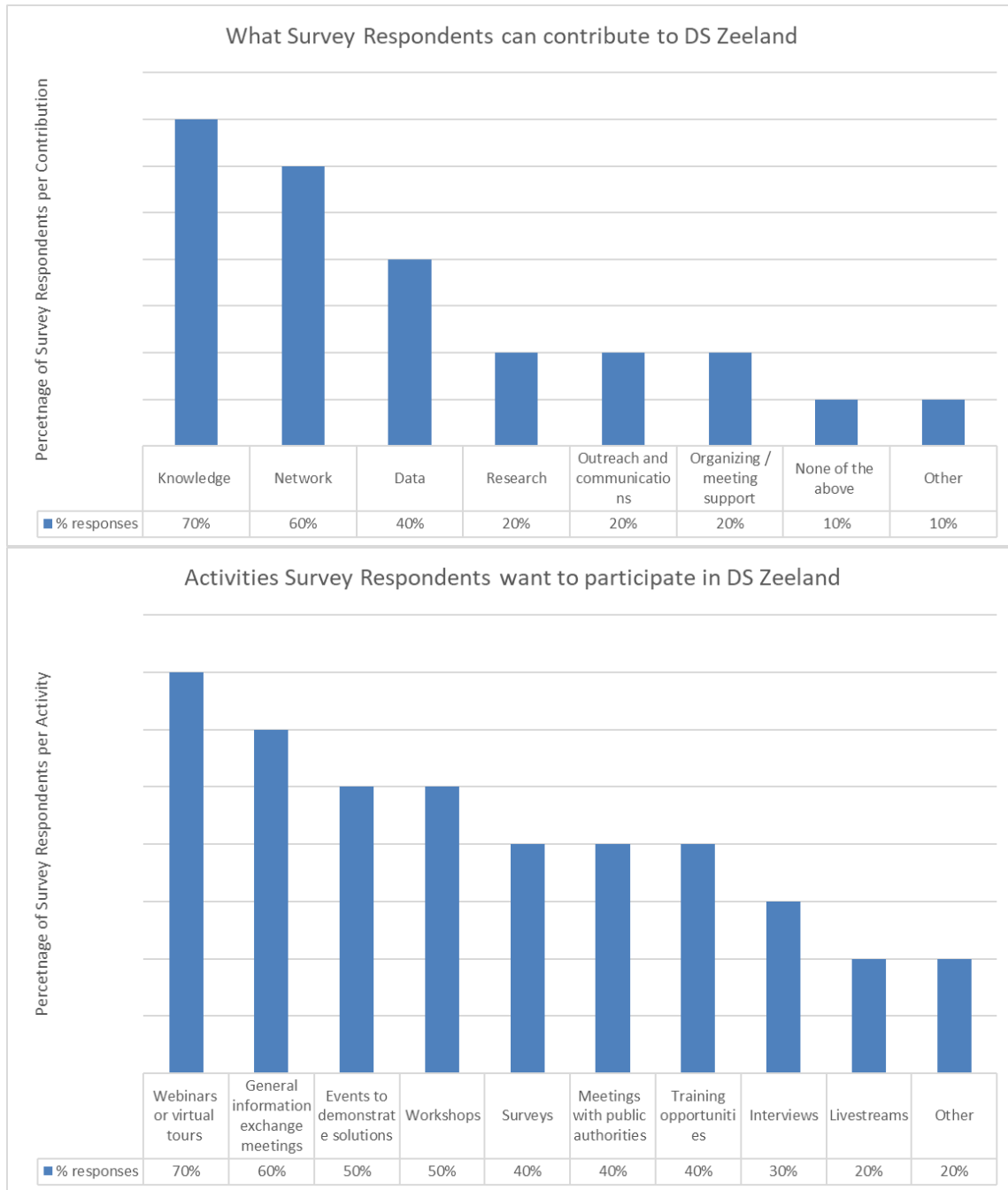
QH Type	Number of respondents on the question about knowledge and perception
Academia	5
Industry	15
Government	8
Citizens, media and culture	5
Blanks	3



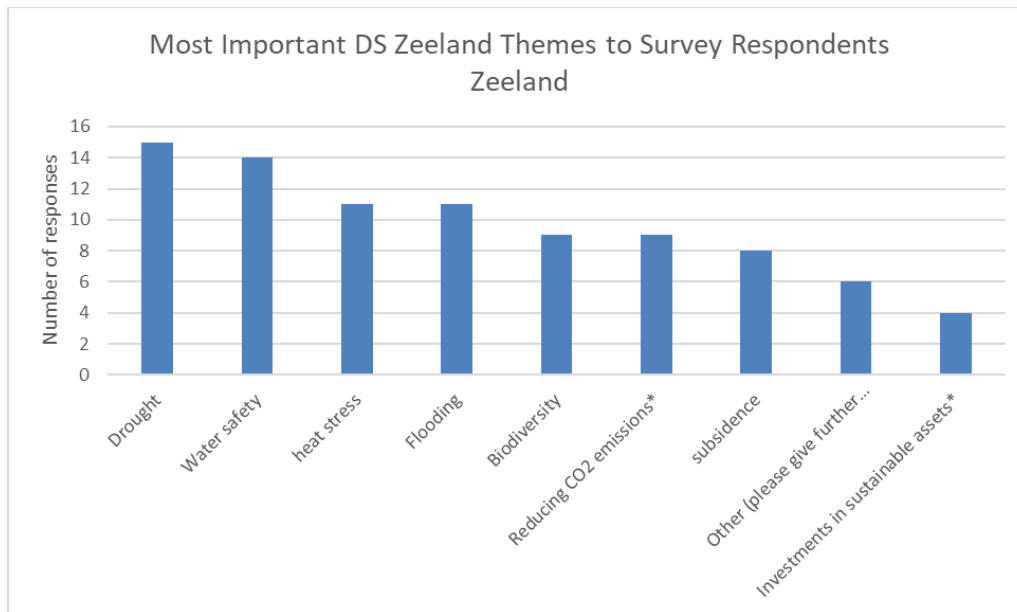


Stakeholders expectation and capacity to contribute to the IMPETUS project





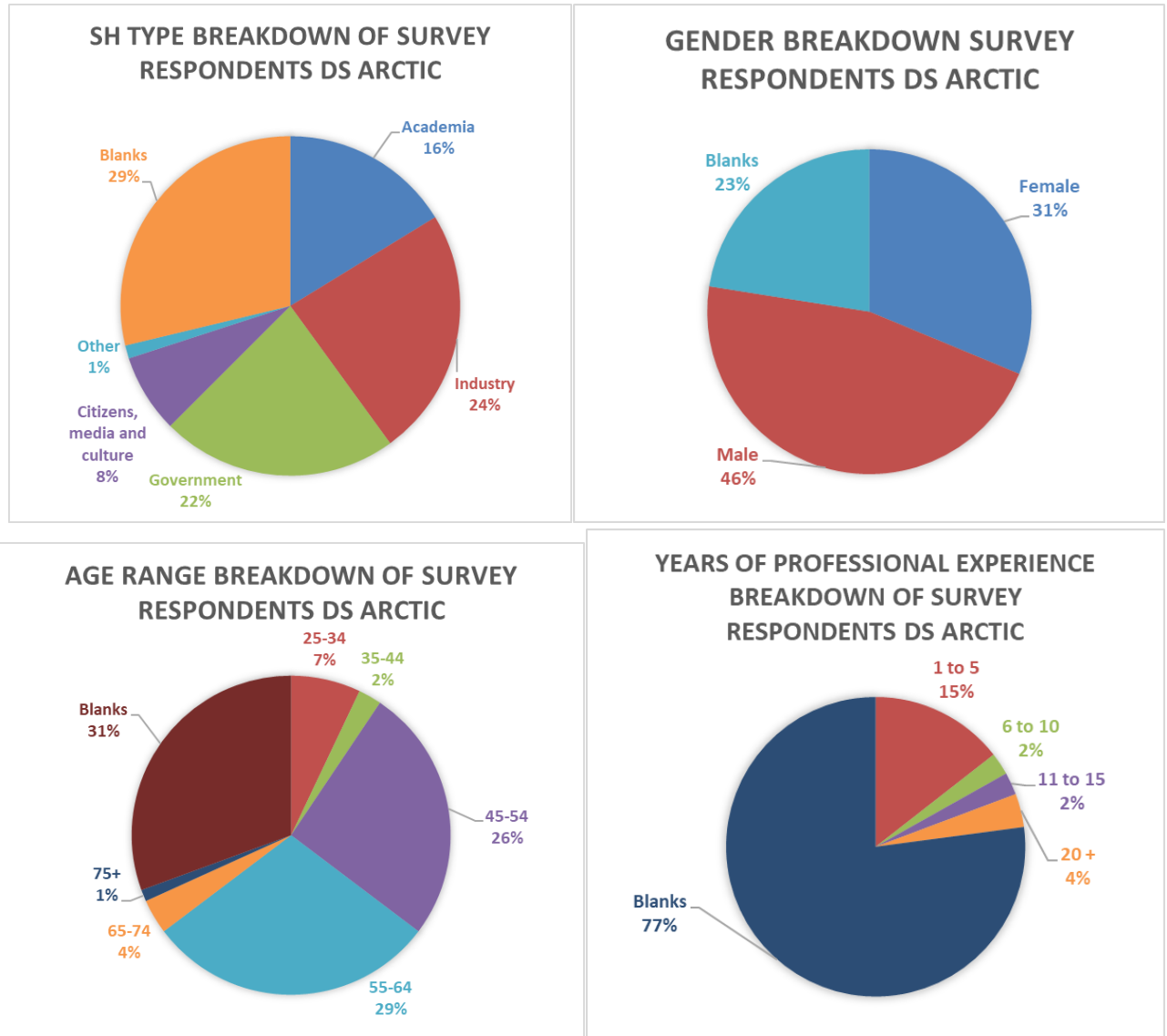
Additional tailored survey questions



DS5 Arctic – Troms and Finnmark

Note that DS5 Arctic had 2 separate surveys distributed, so the analysis is based on the combined survey numbers. Most participants answered the first survey, whereas many less answered the second survey.

Survey respondents demographics*



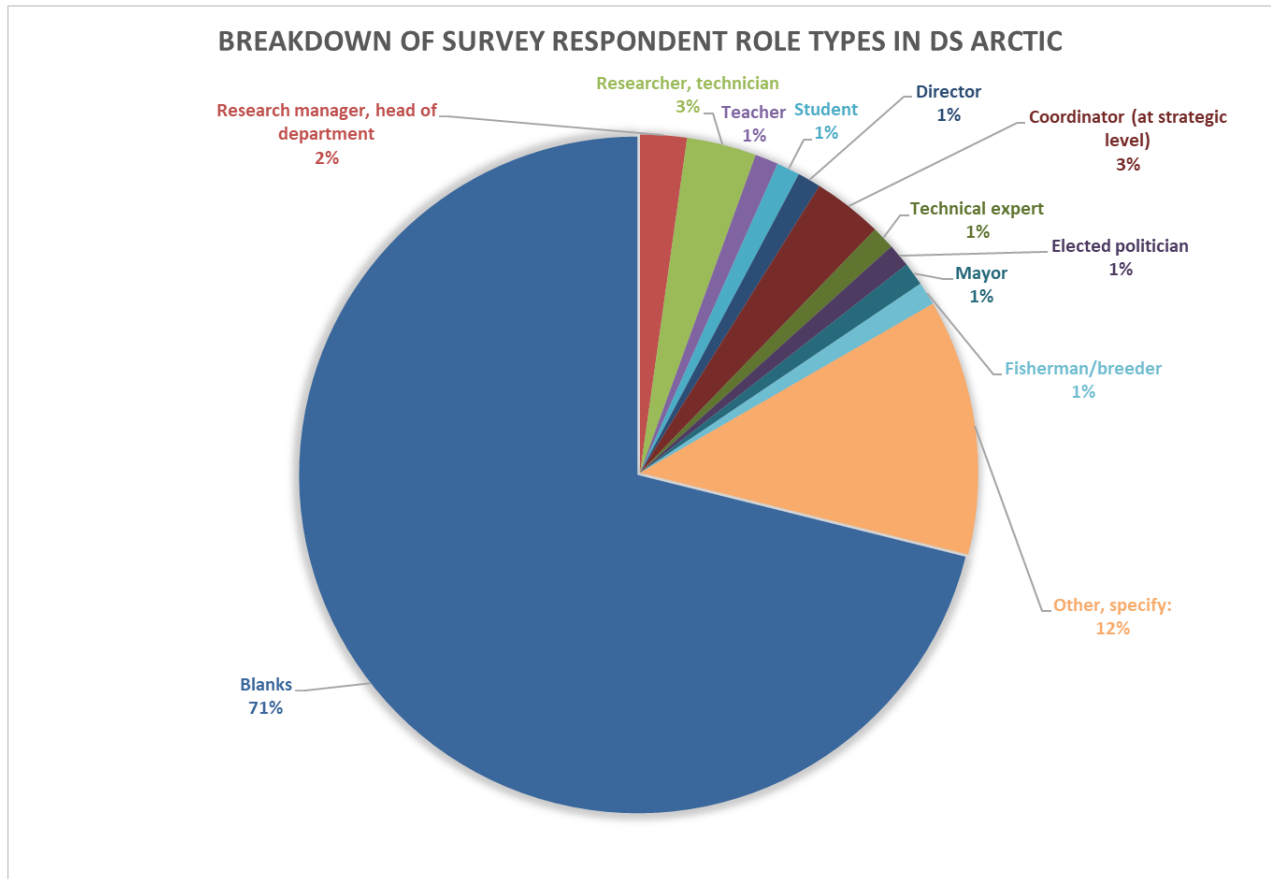
*Years of experience breakdown of survey respondents

Fewer respondents as this question was included in the second survey, hence why there is 77% of responses blank.

List of Survey Respondent Roles at their Organisations

Fewer respondents as this question was included in the second survey, hence why there is 71% of responses blank.



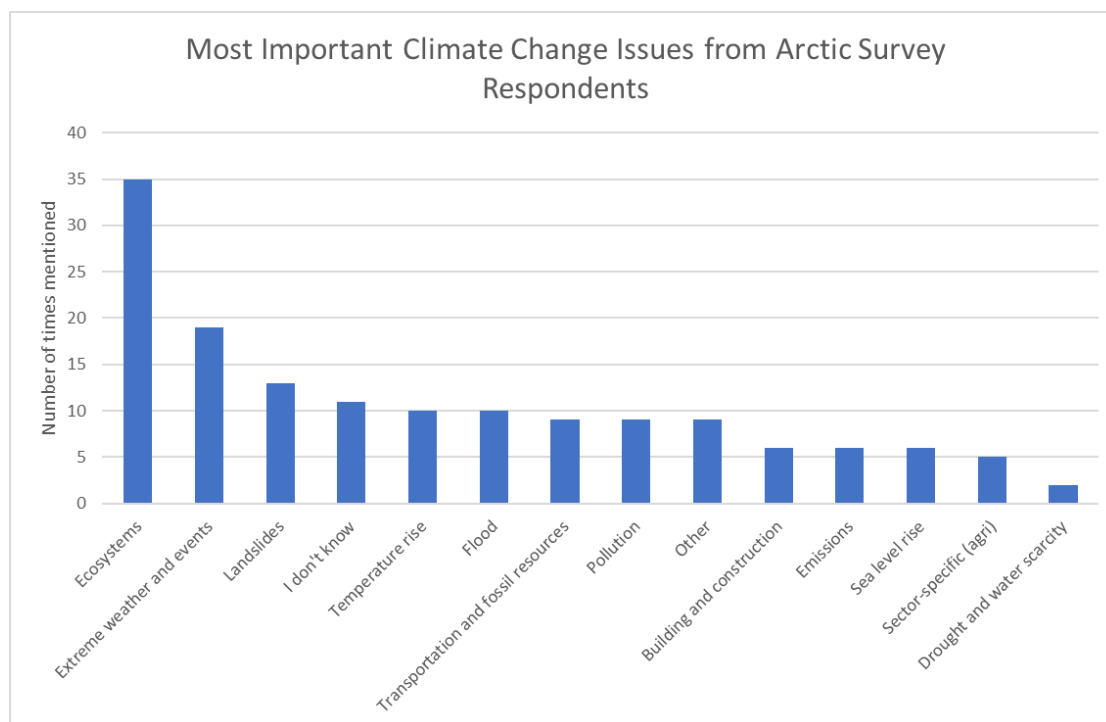


Other:

Duplicates removed - See the SH Register and survey data for specifics about each SH.

Adviser
Architect / planner
Cultural conservation advisor
Will work as a student politician in the coming year
Scholarship holder
Project manager
Works against the farming industry
Advisor (considers, among other things, how climate (emissions and adaptation) is taken care of in plans for consultation)
Professor emeritus
HR senior advisor at UiT and head of the Housing and Byplan Association Nord (BobyNord)

Most important problems and solutions as perceived by survey respondents



Note that the suggested solutions to the most important problems for the DS5 Arctic were not included in this analysis because the survey returned insufficient data about this topic.

List of Known Climate Change Initiatives

Initiatives related to skills development. Submitted an application to become one of the 100 climate-neutral cities. Measures related to climate adaptation in municipal plans.
National and local political strategies, local initiatives (from below)
Waste management, source sorting
To take sea level rise into account when building new buildings
The cycling city of Tromsø
Tromsø municipality aims to become climate neutral. The tolling in Tromsø is partly a climate measure. The investment in developing better opportunities for pedestrians and cyclists in Tromsø is part of it all.
Tromsø municipality has a plan for stormwater management which is followed up in the KPA and regulatory plans, county municipal infrastructure must follow up the county municipality's planning strategy: Troms and Finnmark must be a leading Arctic region in climate change by 2040. I assume this also obliges in relation to climate adaptation
Digital conferences in municipalities, counties and public agencies
Hydrogen investment, Railways, afforestation, electrification of transport, electrification of aquaculture and fishing
Climate-neutral cities (Tromsø), Green mobility', Green pay signs
The hydrogen strategy in which the county council and the Eastern Finnmark Council are key actors Application for support for filling stations for hydrogen and for support for the purchase of hydrogen cars in the municipalities
Climate considerations are taken into account in new construction projects, e.g. related to sea level rise. Tromsø's application to become one of the EU's 100 climate-neutral cities is one initiative.
Fees and restrictions.
Application for 100 climate-neutral cities, climate budget, leading sustainable trainee programme, renewable energy, sustainability program at UIT



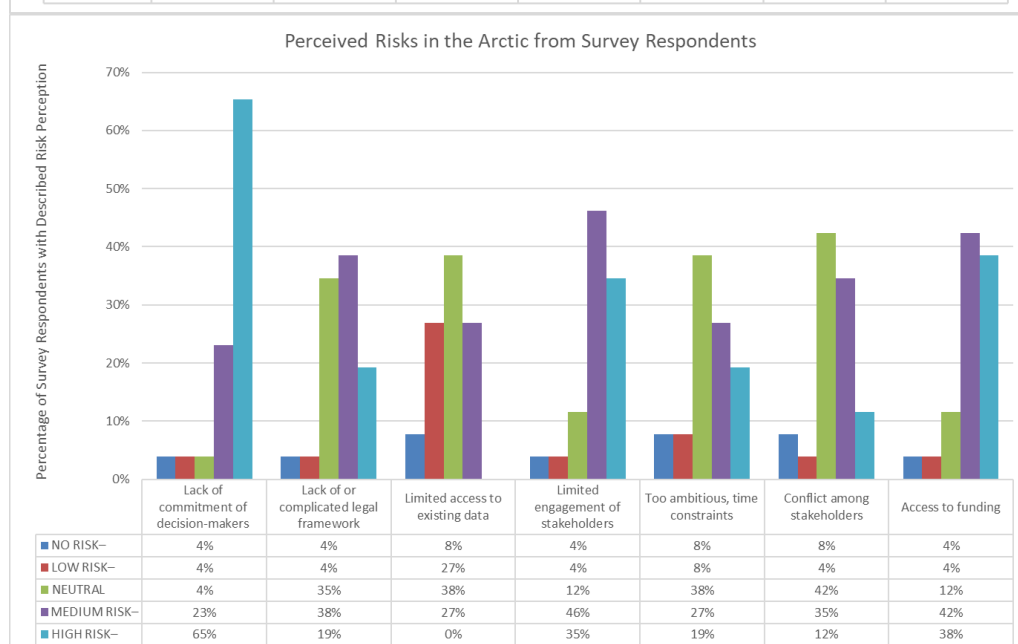
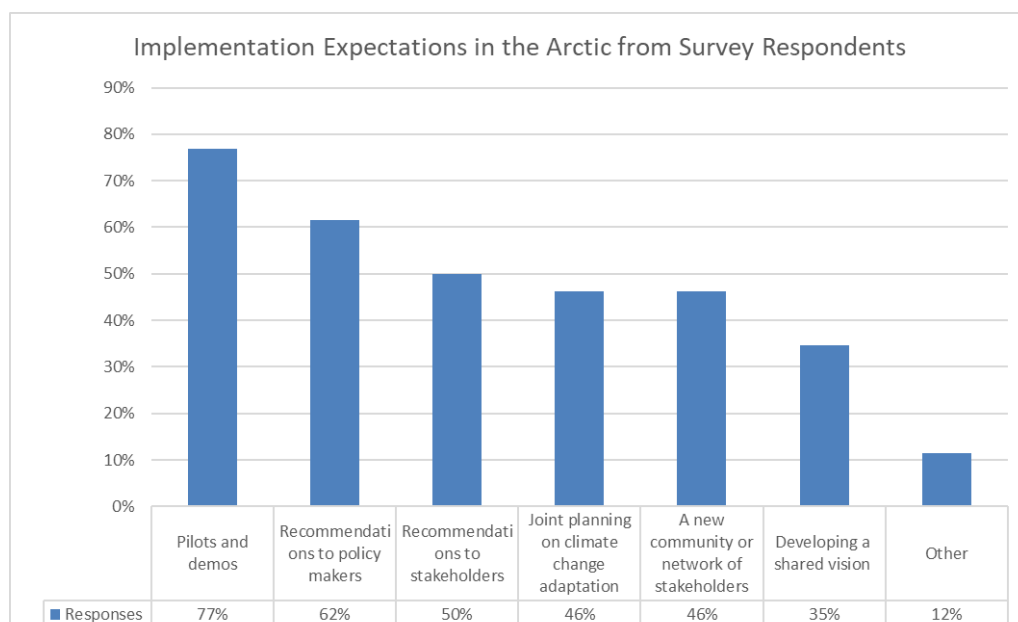
They exist. In other words, Tromsø municipality has been very ambitious in terms of goals and future plans. Ex. declared climate and environmental crisis, ambitious climate, energy and environmental plan and application for 100 climate-neutral cities. Having said that, Tromsø is unfortunately very bad at pursuing the goals. Very little action has been taken to actually reduce greenhouse gas emissions and we are completely on the ground in relation to our targets. Although we had a solid reduction in emissions in 2020, we know very well that it was due to the pandemic, as almost all of those cuts were in shipping (cruise) and aviation (travel/tourism). I am disappointed.

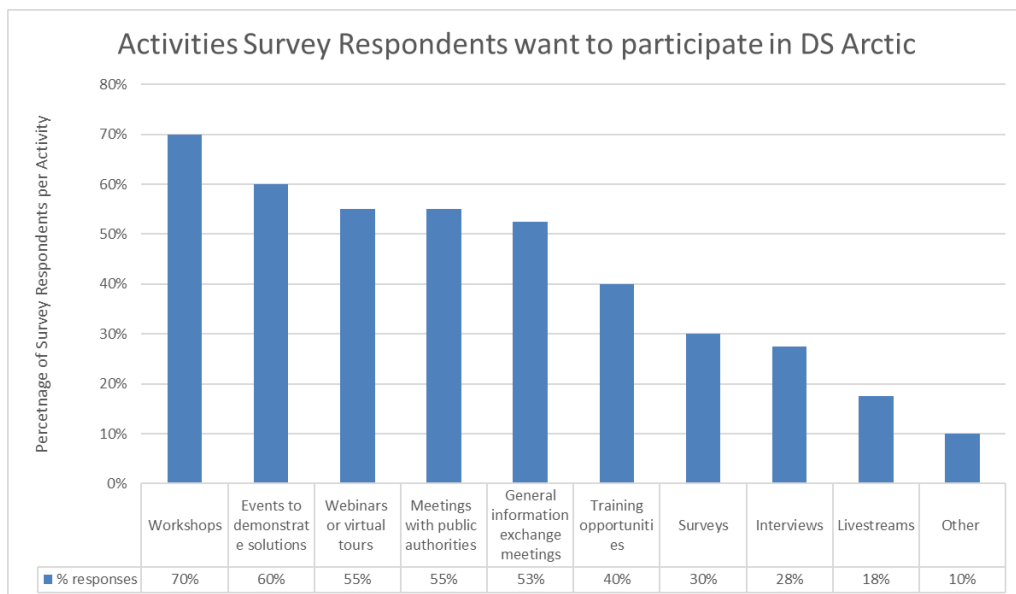
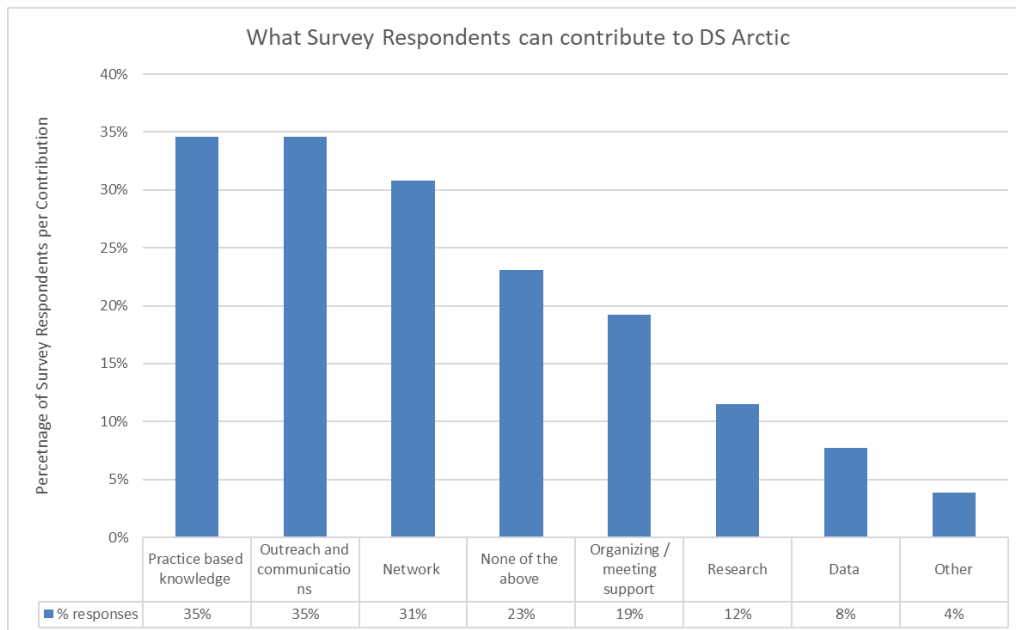
Traffic lift with a focus on bus, walking and cycling. Tolls for cars

Stakeholders knowledge and perception on climate change

No data for these questions from DS5 Arctic.

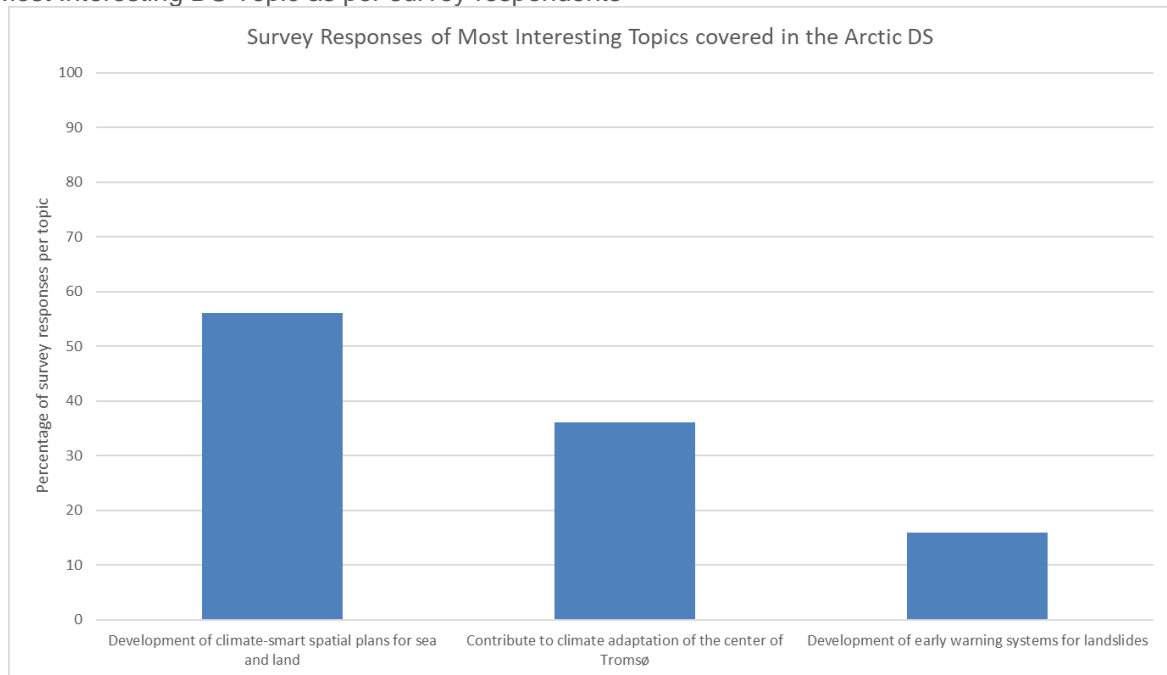
Stakeholders expectation and capacity to contribute to the IMPETUS project





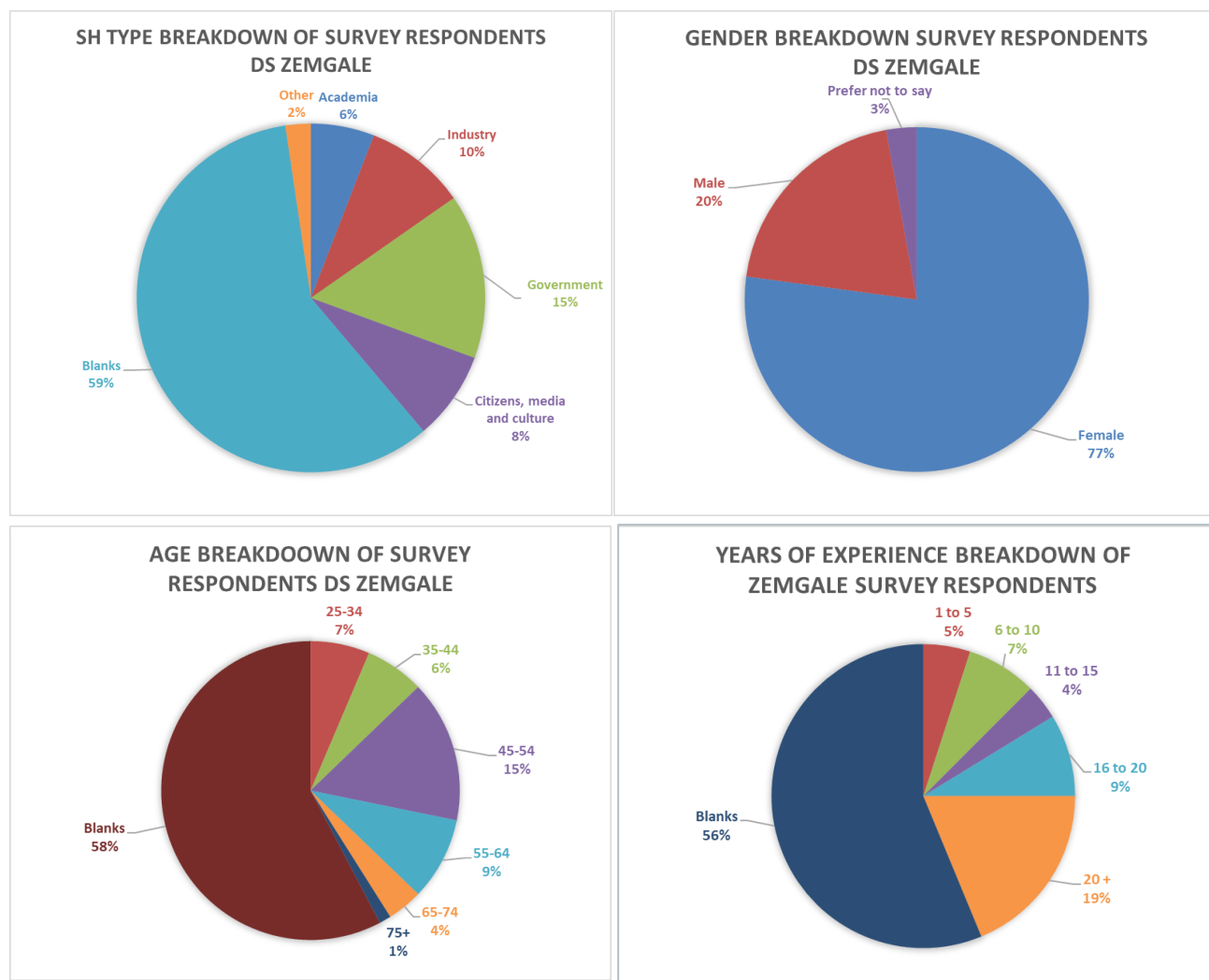
Additional tailored survey questions

Most Interesting DS Topic as per survey respondents



DS6 Boreal – Zemgale

Survey respondents demographics

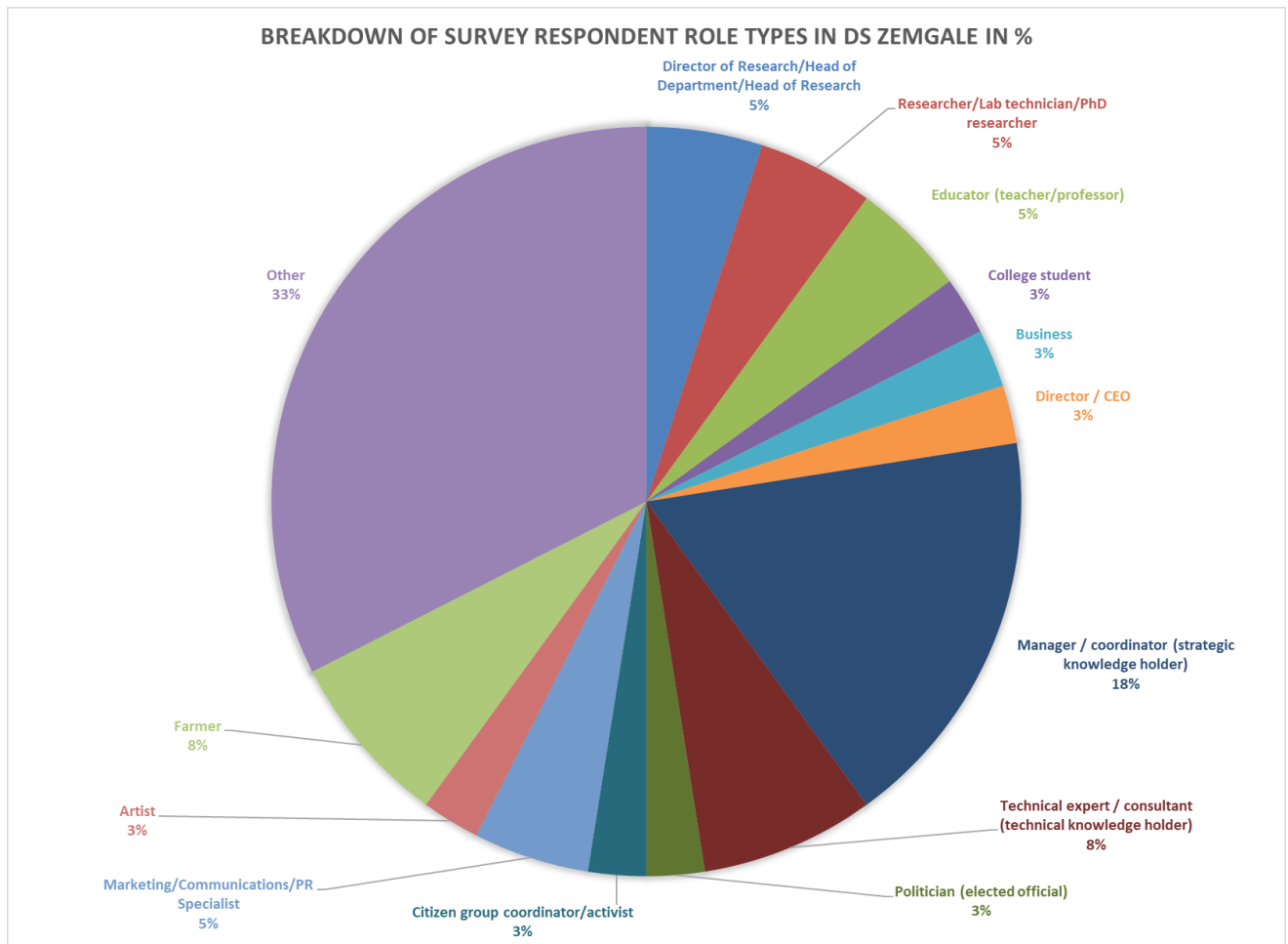


List of Survey Respondent Roles at their Organisations

Role	#
Director of Research/Head of Department/Head of Research	2
Researcher/Lab technician/PhD researcher	2
Educator (teacher/professor)	2
College student	1
Business	1
Director / CEO	1
Manager / coordinator (strategic knowledge holder)	7
Technical expert / consultant (technical knowledge holder)	3
Politician (elected official)	1
Mayor	0
Citizen group coordinator/activist	1
Journalist/ news anchor/ radio producer etc.	0
Marketing/Communications/PR Specialist	2



Artist	1
Farmer	3
Other	13



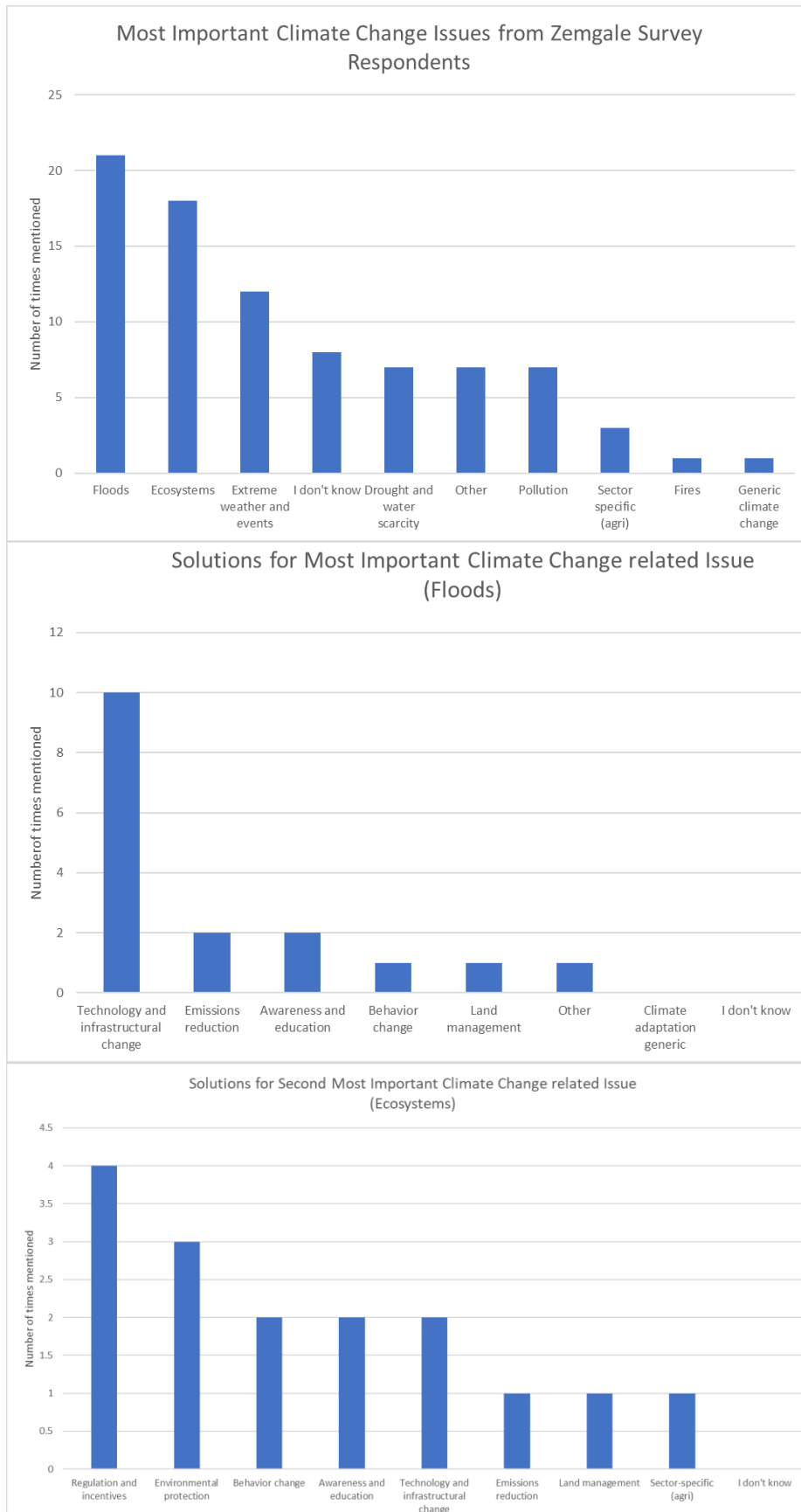
Other:

Duplicates removed - See the SH Register and survey data for specifics about each stakeholder.

Finance
Environmental expert
Head of the Mineral Materials Laboratory
Project Manager
Environmental management specialist
Agricultural expert



Most important problems and solutions as perceived by survey respondents



List of Known Climate Change Initiatives

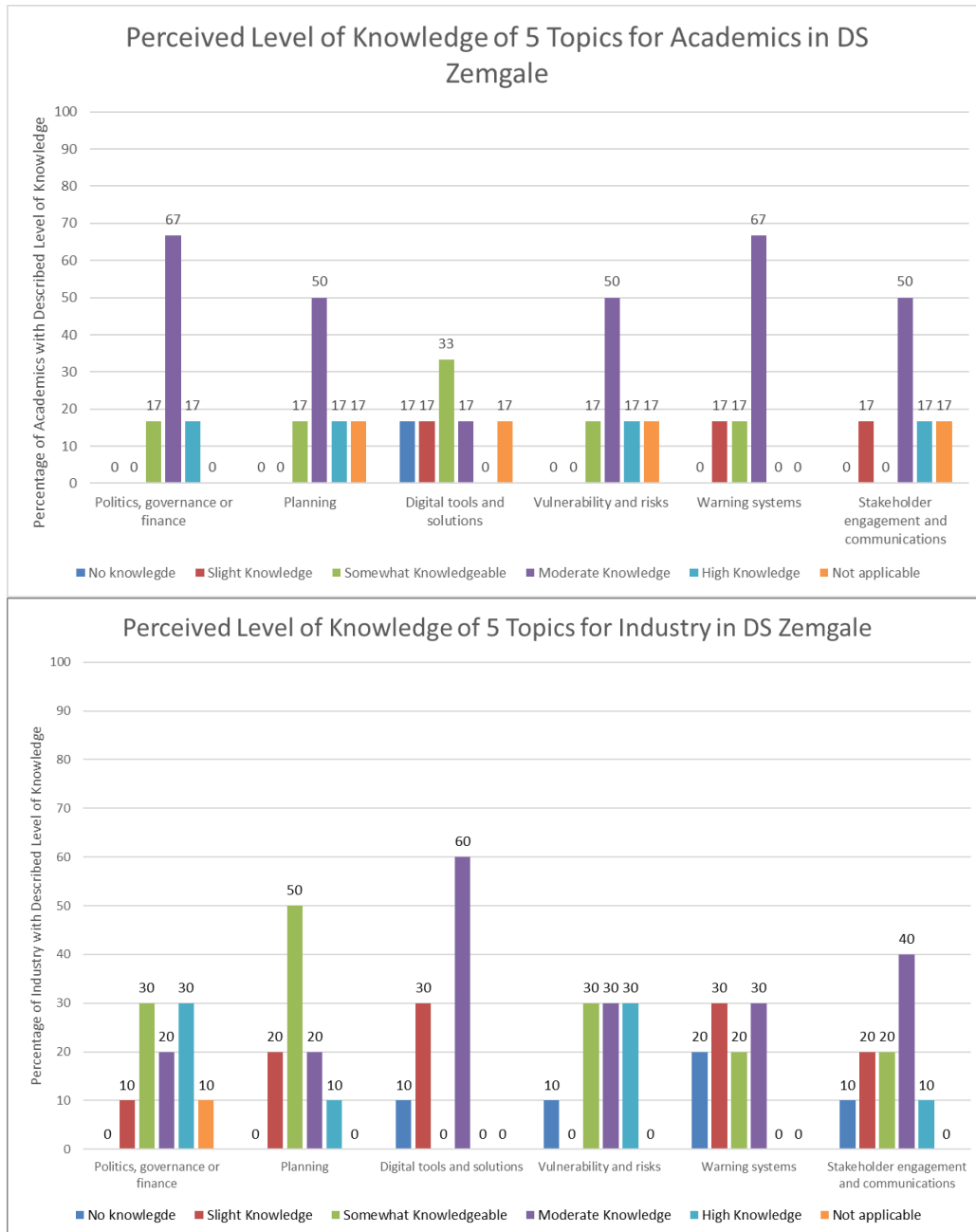
Improving the condition of the river environment, which increases self-purification capabilities; connections to the common water supply system, use of solar collectors for energy production
Use of solar energy
SECAP, Covenant of Mayors
A series of state and local governments
Projects, sectoral, municipal strategies and action plans
Replacement of street lighting, informative projects of environmental NGOs
National development strategy and climate change adaptation plan, Zemgale regional development strategy, EU co-financed projects (for example H2020: IMPETUS project)
Development of a strategy for the use of sewage sludge.
Development of a strategic plan
Waste management Mēmele, Mūsa and Lielupe reserve, construction of small HPPs in Mēmele, Mūsa suspended
An energy and climate plan has been developed.
At the regional level, such a serious initiative is not felt. I would like to emphasize the essential importance of local government. In Ozolniekos, for example, in my opinion, many apartment buildings have been insulated only with the support of the municipality, after the regional reform, I do not see that this will continue.
Local initiatives
Both planning and practical operations
Participation in the project
Flood warning and prevention system in Jelgava
Sustainable energy and climate action plan of the city of Jelgava

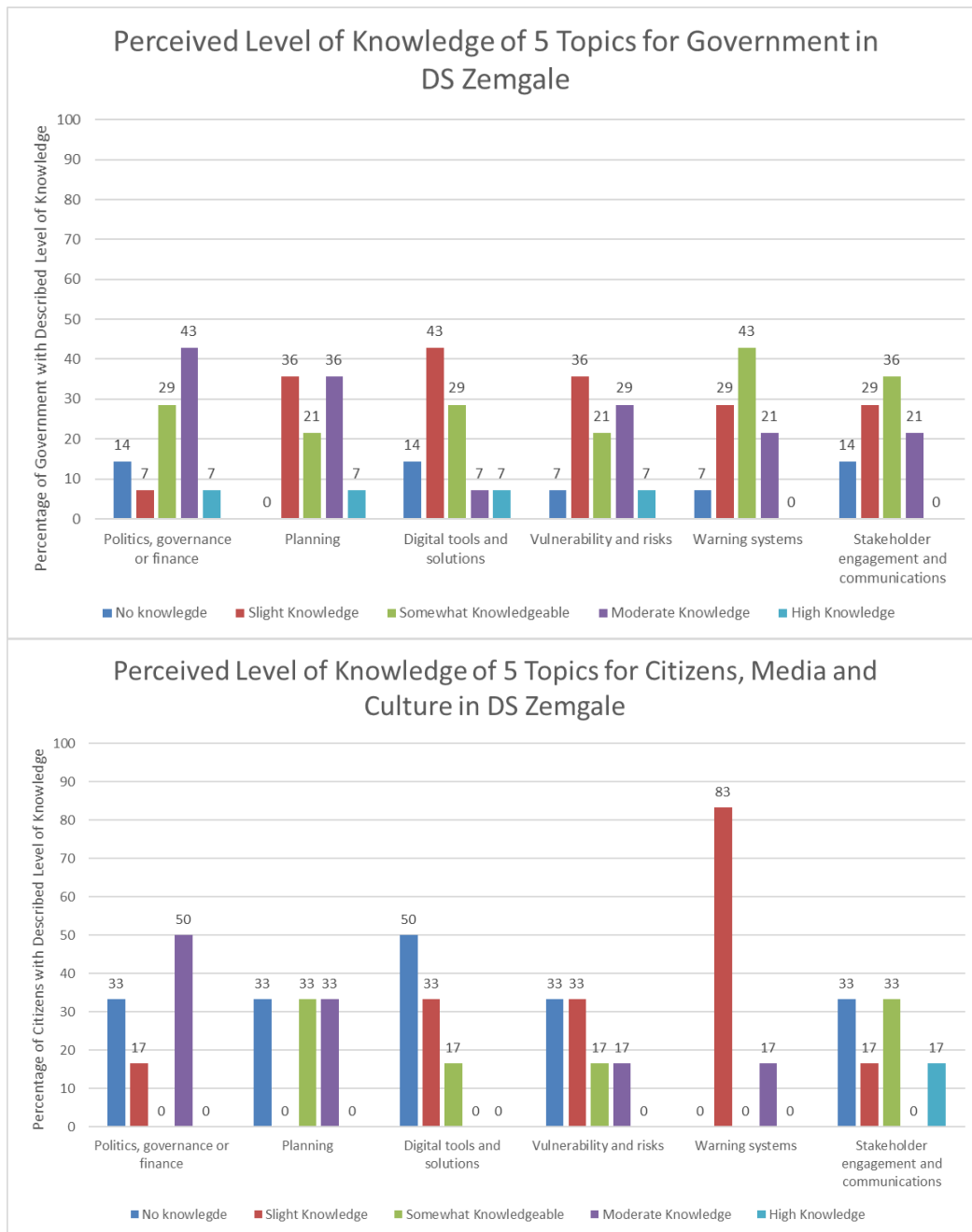
Stakeholders knowledge and perception on climate change

It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. For the Zemgale DS, there were:

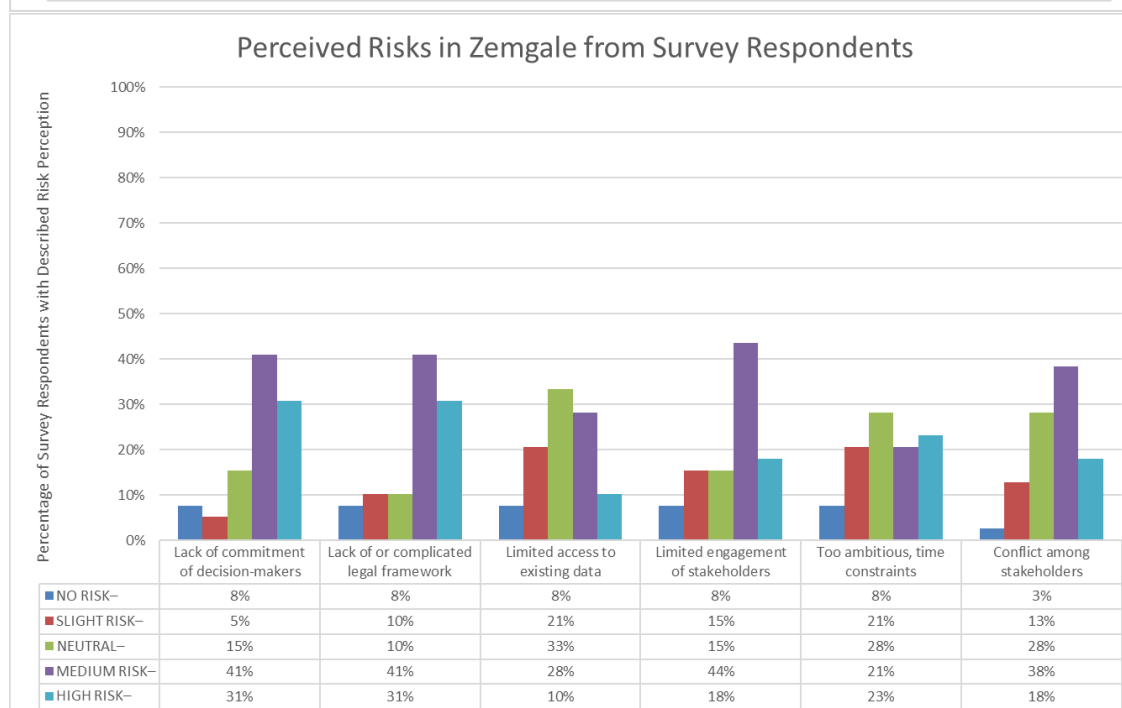
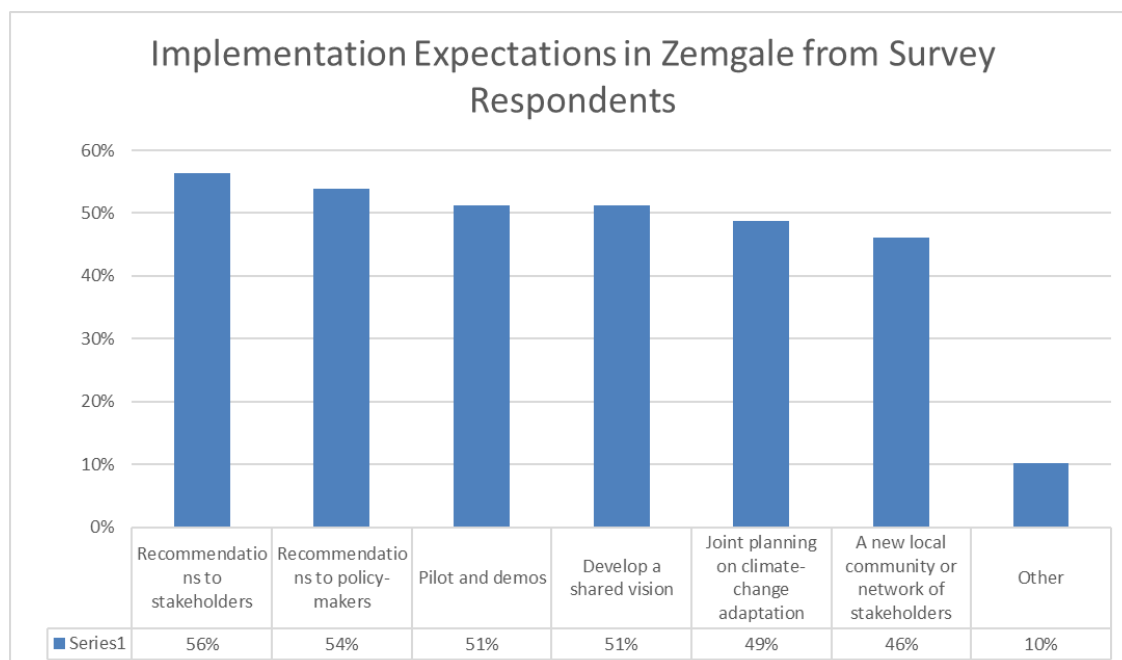
QH Type	Number of respondents on the question about knowledge and perception
Academia	5
Industry	8
Government	13
Citizens, media and culture	7
Other	2
Blanks	50

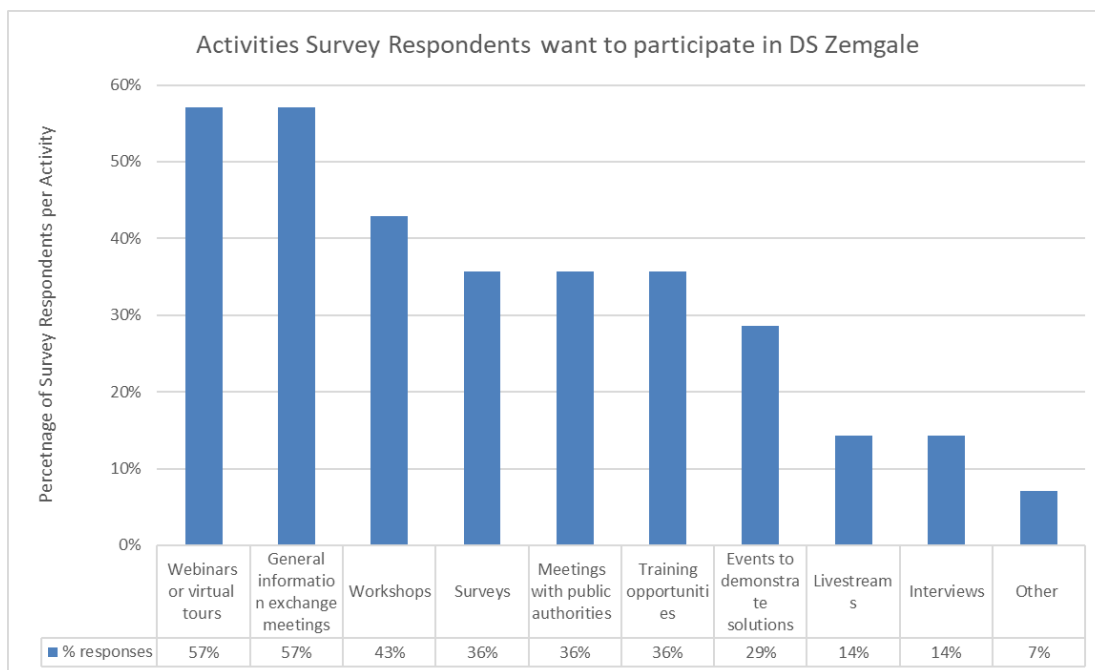
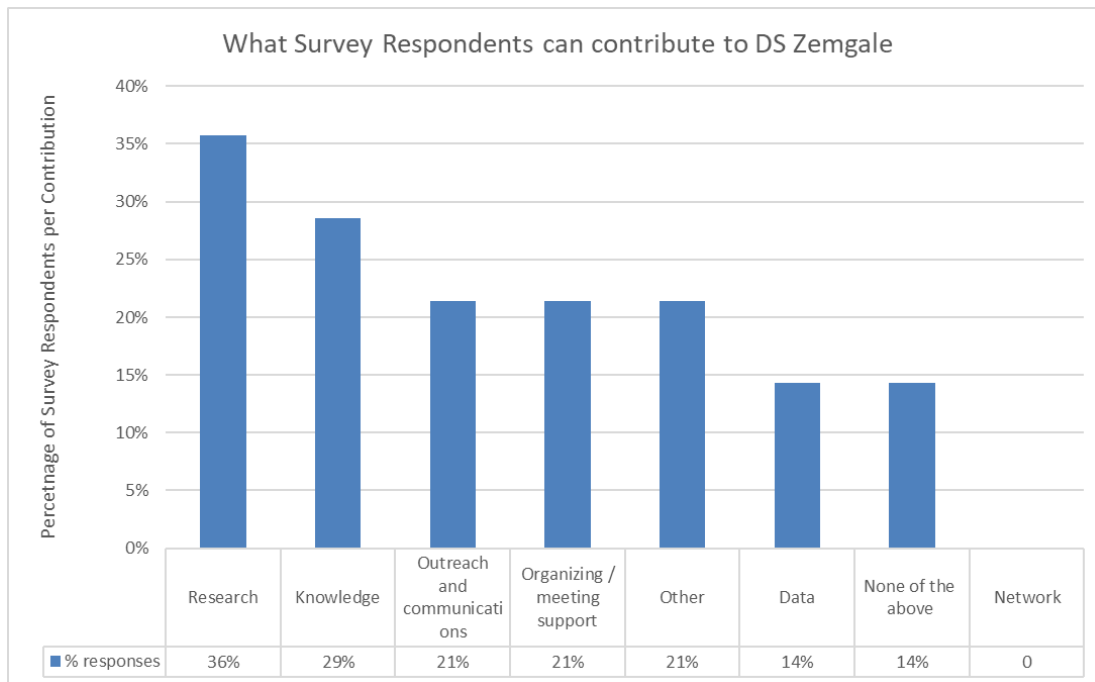






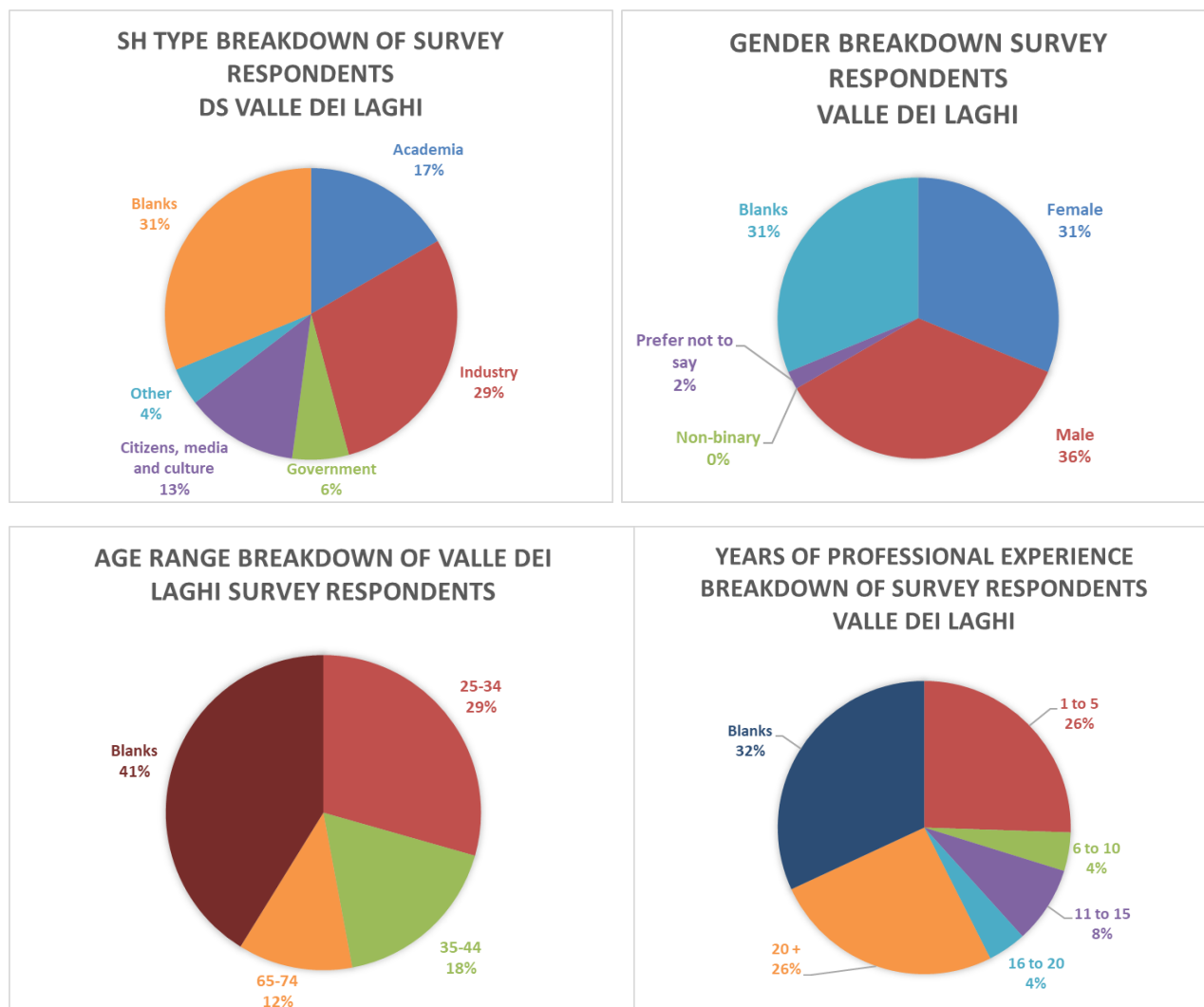
Stakeholders' expectation and capacity to contribute to the IMPETUS project





DS7 Mountain – Valle dei Laghi

Survey respondents demographics

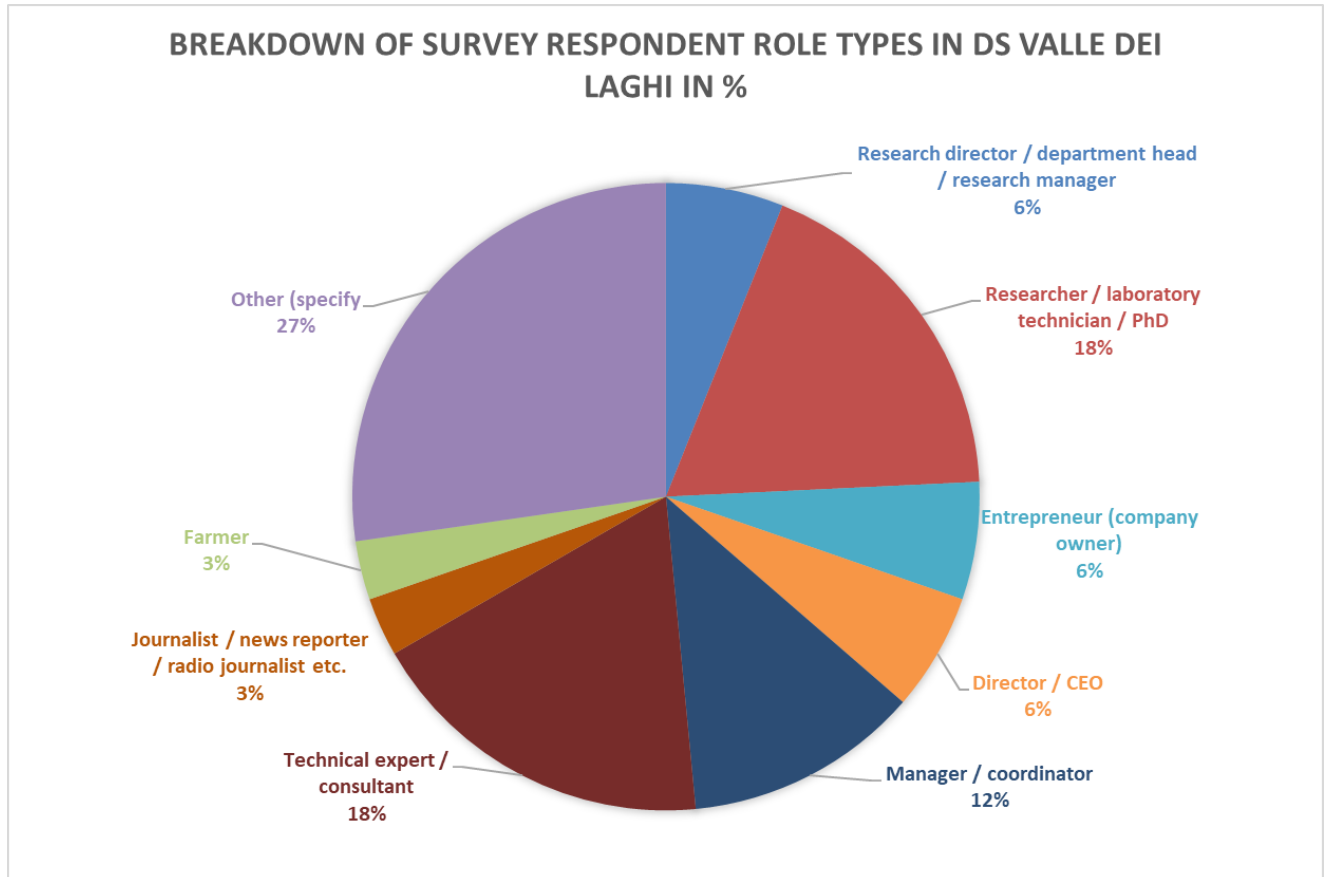


List of Survey Respondent Roles at their Organisations

Research director / department head / research manager	2
Researcher / laboratory technician / PhD	6
Trainer (teacher / teacher / professor)	0
Student	0
Entrepreneur (company owner)	2
Director / CEO	2
Manager / coordinator	4
Technical expert / consultant	6
Politician	0
Mayor	0
Leader of a citizen / activist group	0
Journalist / news reporter / radio journalist etc.	1
Marketing / communication / public relations specialist	0



Artist	0
Farmer	1
Other (specify	9



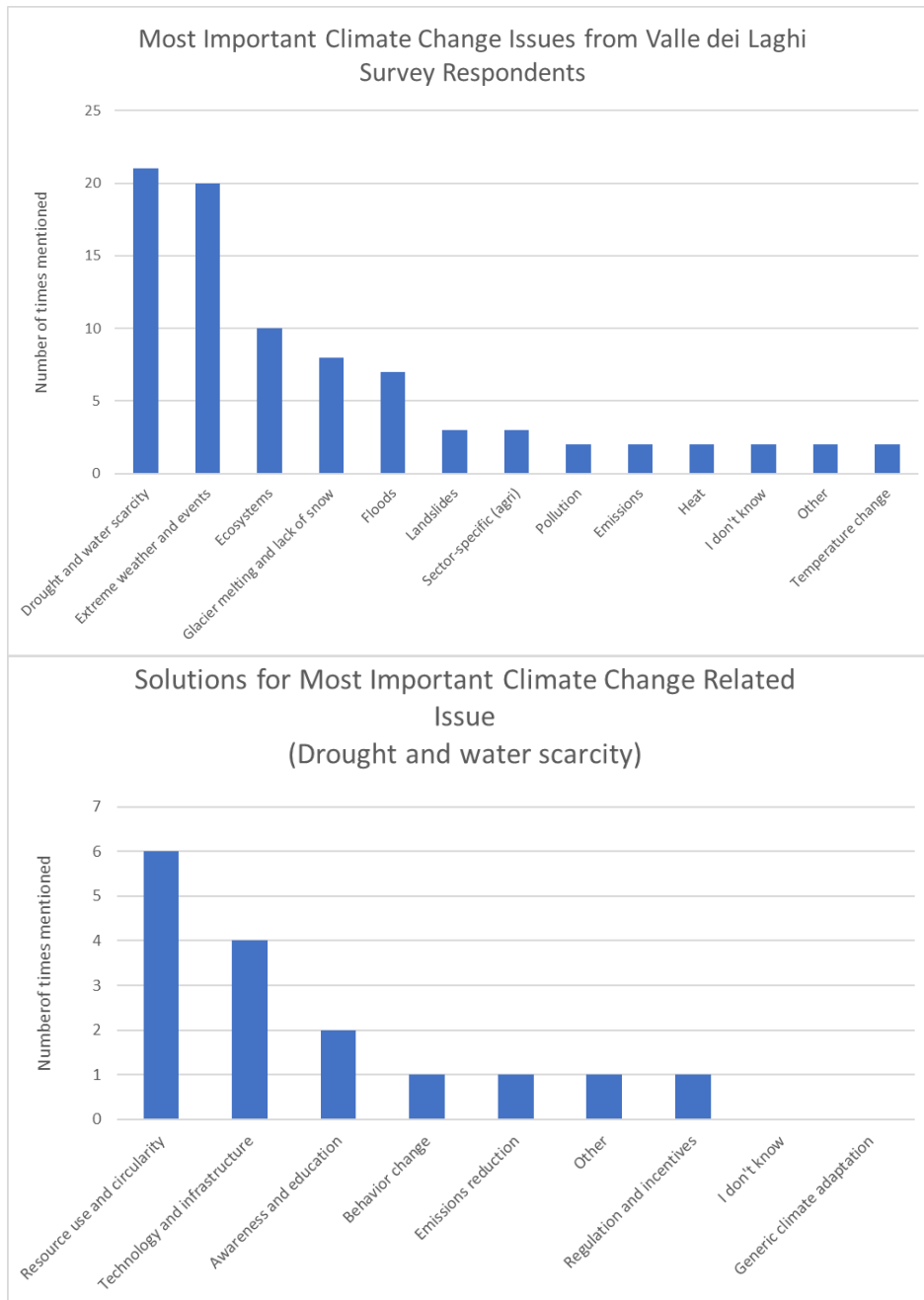
Other:

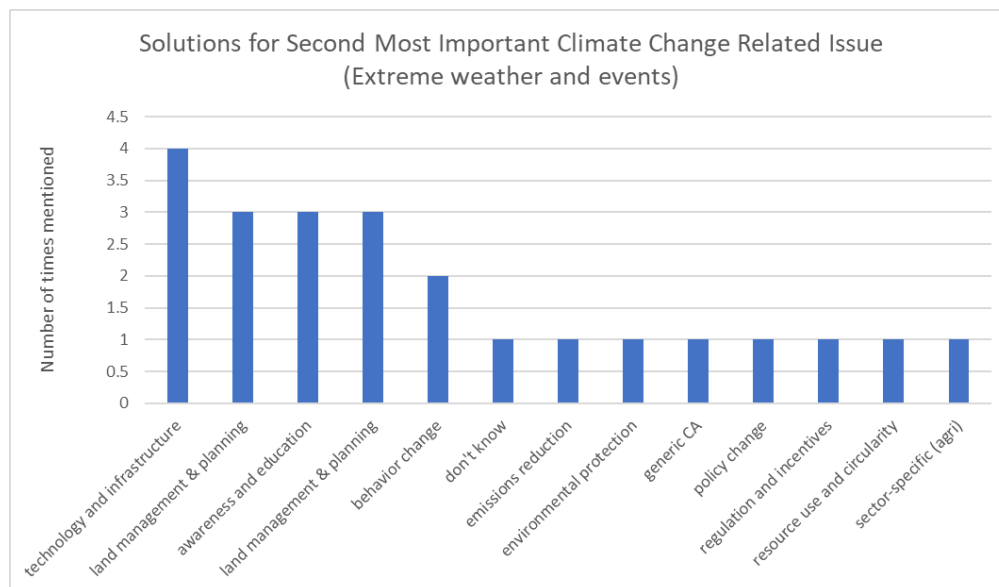
Duplicates removed - See the SH Register and survey data for specifics about each stakeholder.

Technician
Receptionist
Business Analyst - Insurance sector
Deputy office manager
Section president Sat Vezzano
Office worker
Administrative manager



Most important problems and solutions as perceived by survey respondents





List of Known Climate Change Initiatives

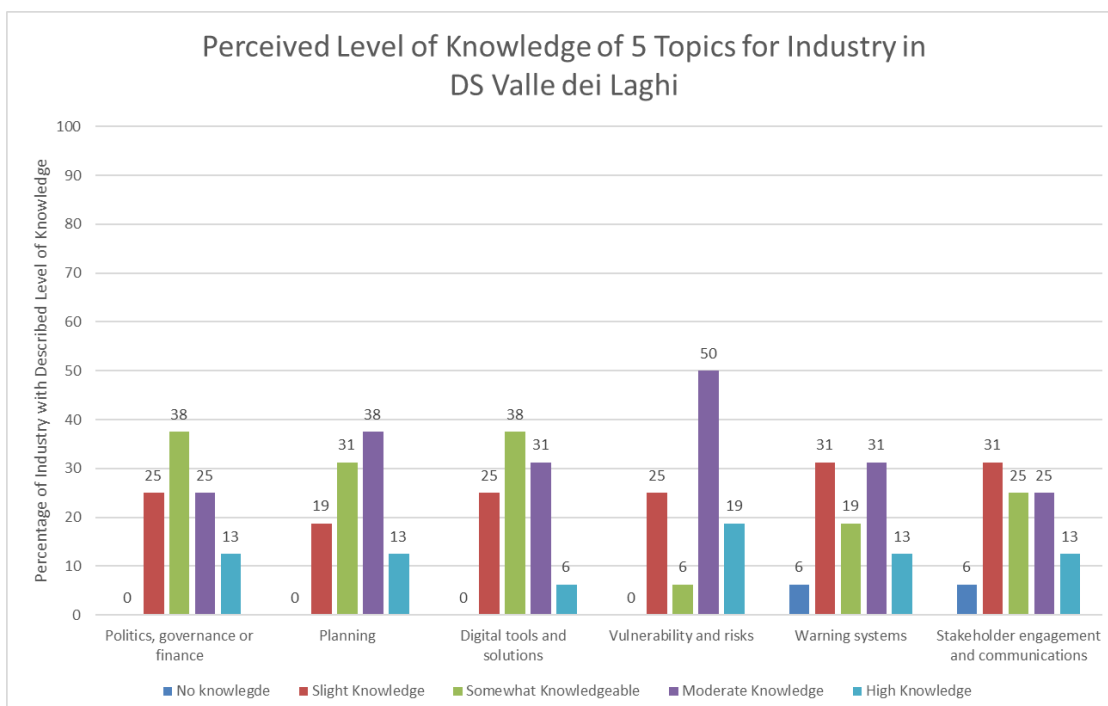
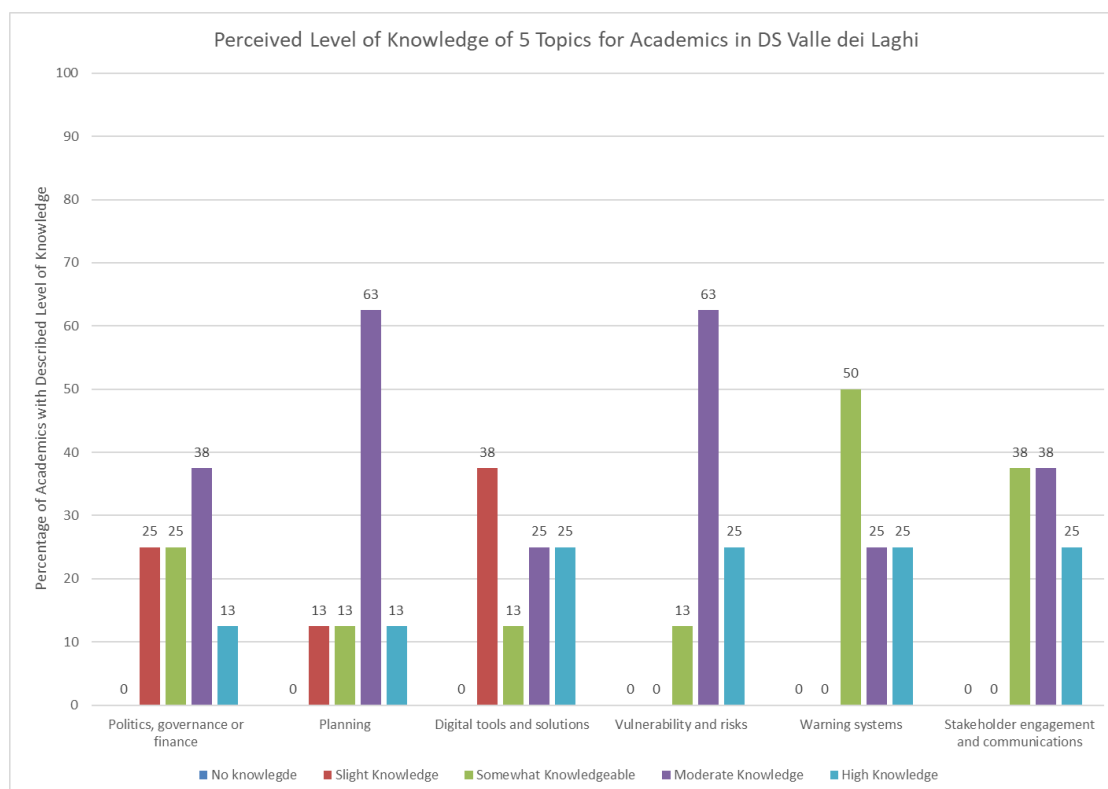
Spross
Provincial environmental energy plan, work of research bodies (Mach Foundation, Kessler Foundation, Department of Civil, Environmental and Mechanical Engineering of the University of Trento, Muse)
"Trentino clima 2021-2023" work program, future Provincial Mitigation / Adaptation Strategy, SECAP of the Municipality of Trento, local entrepreneurial initiatives
Activities carried out in the field of pei on the multifunctionality and multidisciplinary of water, activities to structure risk management solutions suitable to the needs of companies,
GAS - pesticide use - hybrid buses
Context analysis and evaluation of actions that have a positive impact on both the agricultural sector and the environment Pat
Changes in cultivated agricultural varieties, covering glaciers with sheets to prevent melting
Awareness raising events and local regulations
Regional strategy for sustainable development, Lombardy Plan
Risk management tools in agriculture
Conversion of public lighting LED thermal adaptations expansions renewable energy - energy derived from industrial plants
High-altitude basins are being built to produce artificial snow (wrongly)
Provisional plan
Trentino climate program 2021 - 2023
Provincial strategy for adaptation to climate change in preparation
National strategy "Adaptation to climate change" and action plan as well as pilot program "Adaptation to climate change"
https://www.bafu.admin.ch/bafu/de/home/themen/klima/fachinformationen/fertigung-klimawandel.html
https://www.klimaland.bz/klimaplan-energie-suedtirol-2050/

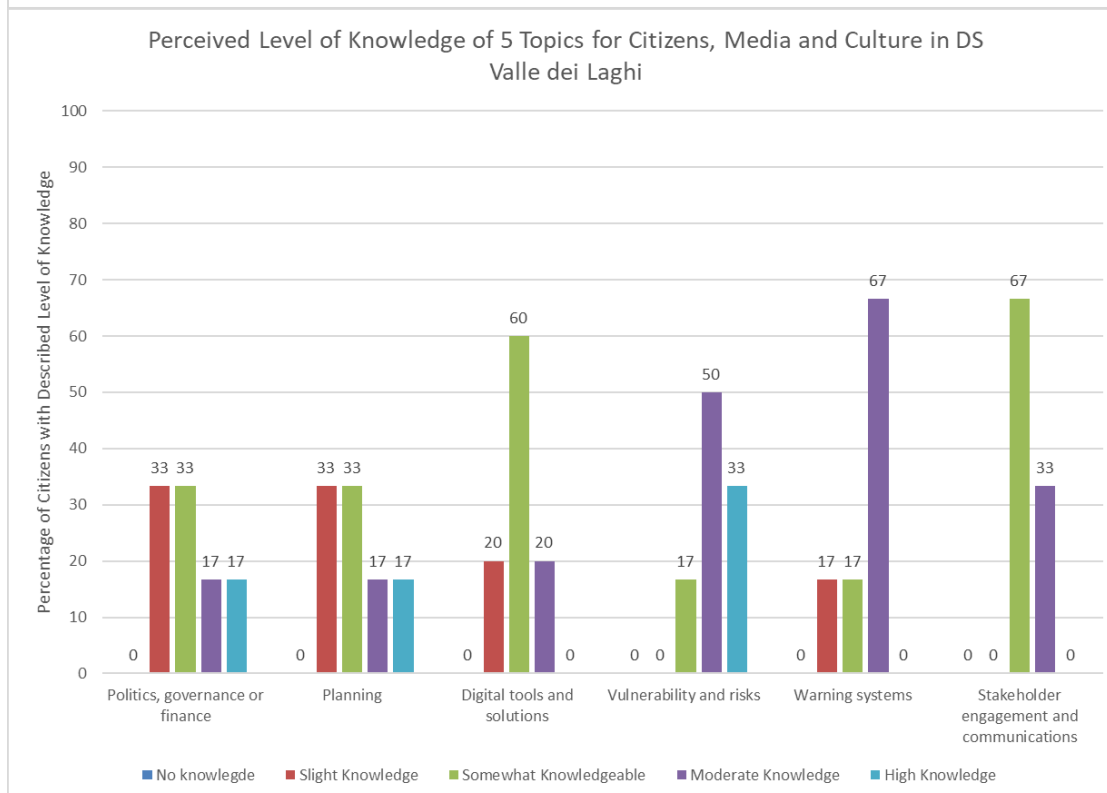
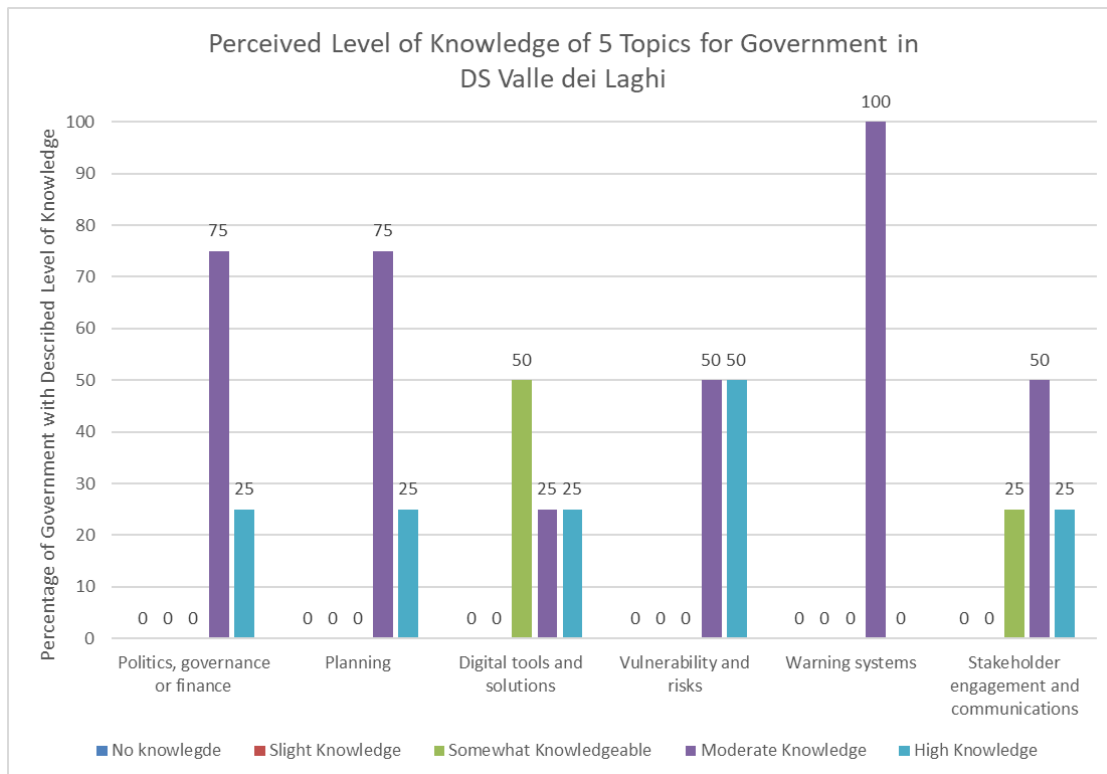
Stakeholders knowledge and perception on climate change

It is important to note that the knowledge and perception of climate change below for each QH group varies in number of respondents, sometimes greatly. For the Valle dei Laghi DS, there were:

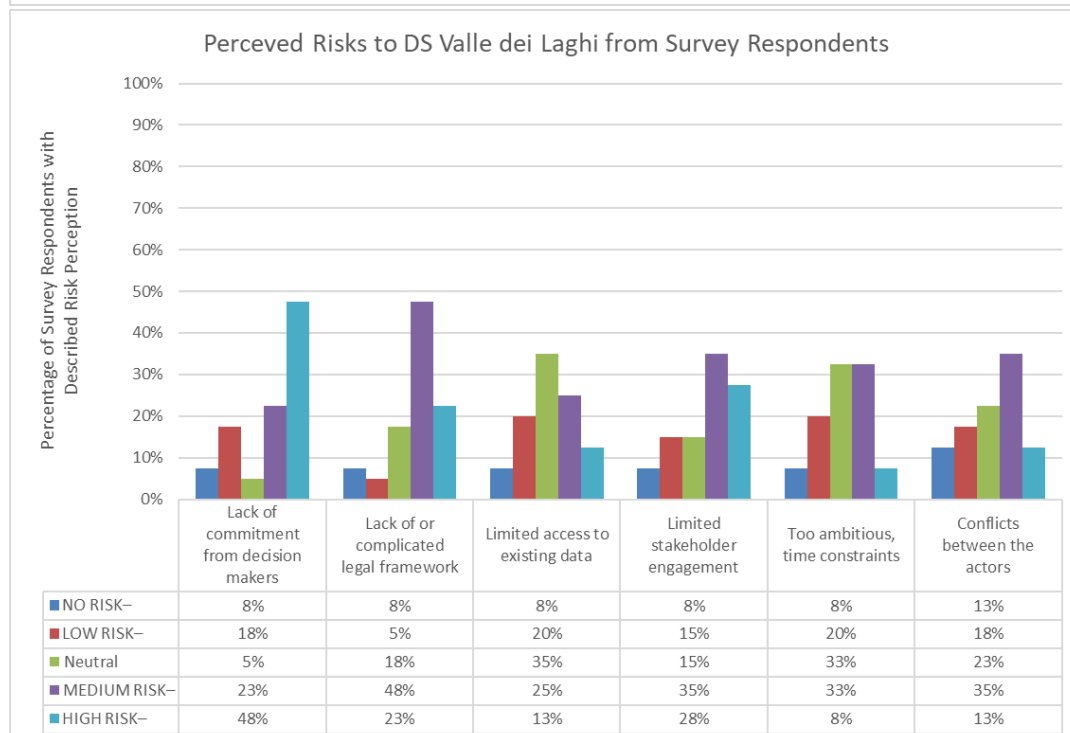
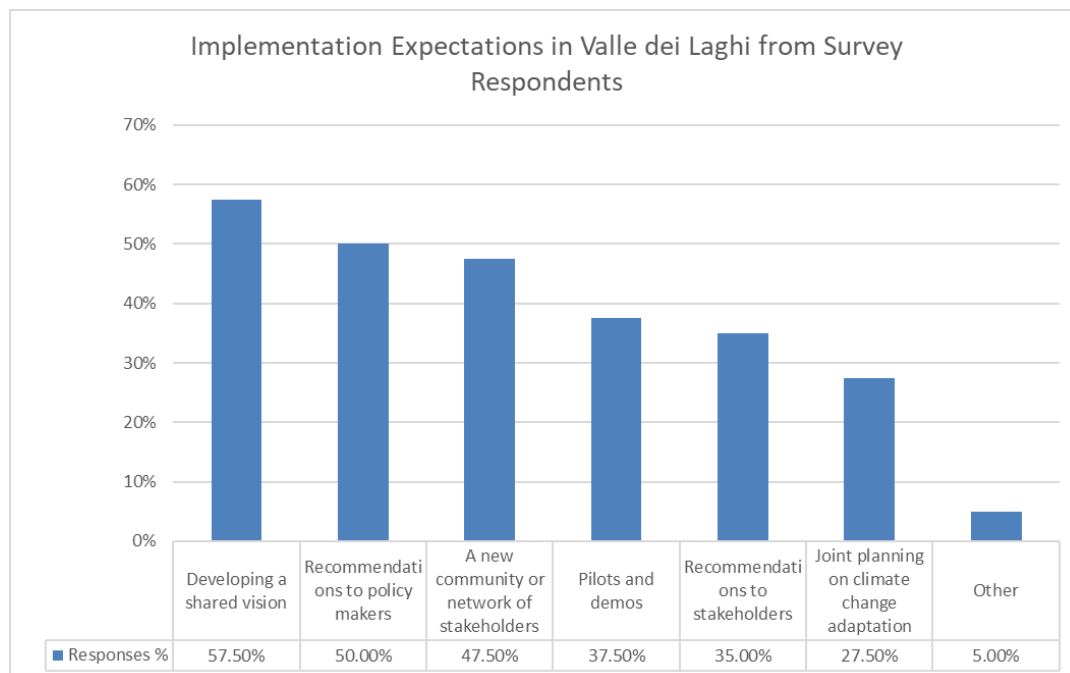


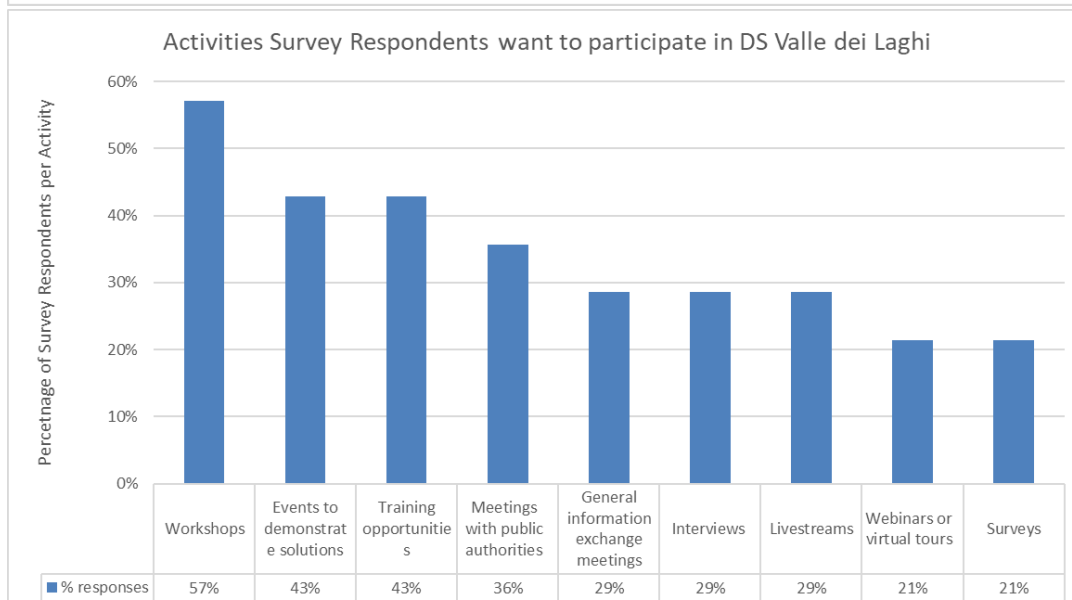
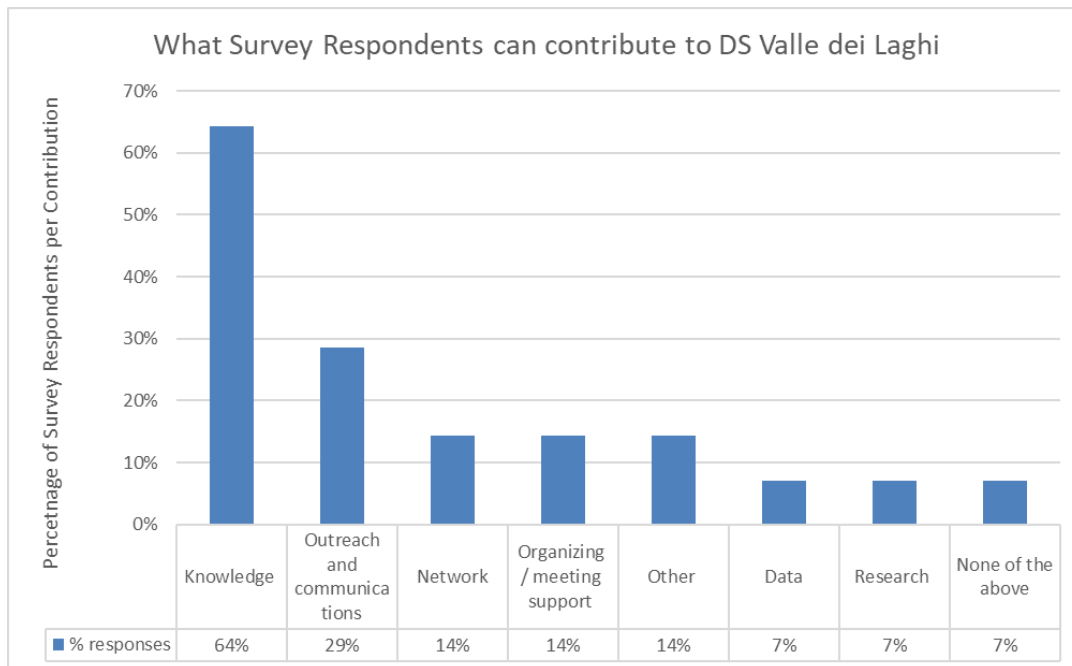
QH Type	Number of respondents on the question about knowledge and perception
Academia	8
Industry	14
Government	3
Citizens, media and culture	6
Other	2
Blanks	15





Stakeholders expectation and capacity to contribute to the IMPETUS project





Annex 2: List of Organisations per Demo-Site per Quintuple Helix Stakeholder

Note: Duplicates for each DS list of organisations removed.

DS1 Continental – Berlin-Brandenburg

Quintuple Helix Stakeholder Type	List of Organisations
Academic System	<ul style="list-style-type: none"> • adelphi • PIK • Ecologic • TU Berlin • FU Berlin • Buero fuer Angewandte Hydrologie (BAH) • Fresh Thoughts Consulting GmbH • Kompetenzzentrum Wasser Berlin • Projektträger Jülich • Charité/BIH
Industry and Economic System	<ul style="list-style-type: none"> • Berliner Wasserbetriebe • Initiative Wasserversorgung Metropolregion • Kommunales Nachbarschaftsforum e.V. • Landesbauernverband Brandenburg • WasserCluster Lausitz e.V. • frag' die Lieblingssuchmaschinen • IVU Traffic Technologies AG • BDR (Bundesdruckerei)
State, Government and Political System	<ul style="list-style-type: none"> • Ministerium für Landwirtschaft, Umwelt und Klimaschutz • German Working Group on water issues • Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) • SenUMVK • Landeshauptstadt Potsdam • Umweltbundesamt, Kompetenzzentrum Klimafolgen und Anpassung • German Environmental Agency • Stadtfraktion Bündnis 90/Die Grünen
Uninformed Citizens, Media and Culture	<ul style="list-style-type: none"> • Ufa Fabrik Berlin e.V. • a tip: tap e.V

DS2 Coastal – Catalonia

Quintuple Helix Stakeholder Type	List of Organisations
Academic System	<ul style="list-style-type: none"> • CEITSAZA - Centro Tecnológico del Agua en el Desierto (Chile) • Centre d'Estudis Avançats de Blanes (CEAB-CSIC)



	<ul style="list-style-type: none"> • CREAM • IRTA La Ràpita • Laboratori d'Enginyeria Marítima de la Universitat Politècnica de Catalunya · BarcelonaTech (LIM/UPC) • Salut i/o farmàcia • Universitat de Girona • Observatori de l'Ebre
<p>Industry and Economic System</p>	<ul style="list-style-type: none"> • Agència de Viatges i producte turístic del llaut Lo Sirgador • Aigües de Manresa • Associació càmpings del Mediterrani i Associació de Càmpings de la Costa Daurada i les Terres de l'Ebre • Associació càmpings turisme Tarragona • Associació d'Empresaris d'Hostelaria de la Província de Tarragona. • Associació de Càmpings de Girona • Associació de Càmpings de la Costa Daurada i de les Terres de l'Ebre (vicepresident); i Director del Camping & Resort Sangulí de Salou • Associació de productors agraris de les Terres de l'Ebre PRODELTA • Cambra de comerç de Tortosa • Cambra de Comerç i a ADELA, propietària de Casa Piñana • Càmping Bungalow Resort & Spa La Ballena Alegre • Càmping de Tamarit • Camping Las Dunas • Comunitat de Regants Sindicat Agrícola de l'Ebre • Comunitat General de Regants del Canal de la Dreta de l'Ebre • Consell Comarcal del Maresme • Consorci d'aigües de Tarragona • Directora de l'Hotel Hostal Sport de Falset, Responsable d'Internacionalització de la Cambra de Comerç de Reus i Secretària de l' AEHT. • Enginyeria • Enoturisme , propietari del Cellar i Casa Piñol • Escola Kite Surf Sant Pere Pescador • Estació Náutica de la Ràpita, oficina de Turisme de la Ràpita • Fasewind • Federació Empresarial d'Hostelaria i Turisme de Tarragona Província. • GEPEC • Hotel Corona de Tortosa • l'Associació de professionals de Turisme en Administracions Locals de Catalunya • Port Aventura • Port Segur de Calafell • Propietari de Beniemocions • QU4TRE Consultoria Ambiental • Salut i/o farmàcia • sector turístic en la direcció territorial de Catalunya de CaixaBank • Serra de Prades Resort • Tech Data • Turisme Rural, ATUREBRE, propietari de cases rurals



	<ul style="list-style-type: none"> • Unió de pagesos • Parc Natural del Delta de l'Ebre, Unió de Pagesos (arrosers)
<p>State, Government and Political System</p>	<ul style="list-style-type: none"> • Agència Catalana de l'Aigua, Àrea d'abastament • Agència Catalana de l'Aigua, Àrea de qualitat • Aigües Ter-Llobregat • Ajuntament de Barcelona • Barcelona Cicle de l'Aigua, SA • Ajuntament de Calafell • Ajuntament de Sant Pere Pescador • Ajuntament de Tamarit • Confederación Hidrográfica del Ebro • Consorci d'Aigües de Tarragona • Departament d'acció climàtica • Departament de salut • Dirección General de la Sostenibilidad de la Costa y el Mar • Generalitat de Catalunya, subdirector general de Coordinació d'Actuacions al Litoral, Entorns Rurals i Muntanya • Parc Natural del Delta de l'Ebre • Parc Natural dels Aiguamolls de l'Empordà • Parc Natural dels Ports • Patronat de Turisme a les Terres de l'Ebre • Patronat de Turisme de Cambrils • Patronat de Turisme de Salou • Servei d'Ordenació del Litoral • Taula de consens del Delta de l'Ebre • Turisme de Tortosa • Ajuntament d'Amposta (regidora) • Ajuntament d'Amposta (alcalde)
<p>Uninformed Citizens, Media and Culture</p>	<ul style="list-style-type: none"> • Campanya pels sediments • For you and tree • Associació Càmpings Tarragona • GEPEC-EdC (Grup d'Estudi i Protecció dels Ecosistemes Catalans-Ecologistes de Catalunya) • IAEDEN Salvem L'Empordà • ONG Imago Desarrollo Social y Cultural • plataforma defensa ebre • Plataforma en Defensa de l'Ebre • SEO Bird Life • SOS Costa Brava • Taula del Llobregat • Associació de veïns del Centre d'Amposta • Associació Veïns del Grau • Associació Veïns del Poble Nou • Associació Veïns Eucaliptus (AVIPAE) • Associació Veïns de Favaret

DS3 Mediterranean – Attica

Quintuple Stakeholder Type	Helix	List of Organisations
Academic System		<ul style="list-style-type: none"> National Observatory of Athens/ Institute of Environmental Research and Sustainable Development School of Civil Engineering NTUA/Laboratory of Applied Hydraulics School of Civil Engineering NTUA/Laboratory of Hydrology and Water resources management School of Civil Engineering NTUA/Laboratory of Sanitary Engineering Athens University of Economic and Business/ Department of International and European Economic Studies Head of Research IMP&AA – NTUA Mediterranean Agronomic Institute of Chania (MAICH) National Technical University of Athens (NTUA) ICCS - ELKE (NTUA) Mediterranean Agronomic Institute of Chania
Industry and Economic System		<ul style="list-style-type: none"> Agricultural Association of Paiania Agricultural Association of Spata Agricultural & Viticultural Cooperative of Paiania Agricultural & Viticultural Cooperative of Koropi Agricultural & Viticultural Association of Spata Agricultural Association of Markopoulo Agricultural Cooperative of Marathon Trade Association of Municipality of Marathon Association of Hoteliers of Municipality of Marathon Athens - Attica Hotel Association Mantis Business Innovation Ernst & Young (Hellas) Certified Auditors Accountants S.A./Climate Change and Sustainability Services Ministry of Environment & Energy CHEMITEC Co. F.D.S.A. of Central Greece PUMPKIN TELEMACHUS EYDAP Greener than Green Technologies AE
State, Government and Political System		<ul style="list-style-type: none"> Region of Attica - Civil Protection and Environment- Deputy Governor Region of Attica Region of Attica- General Directorate of Development Planning, Projects and Infrastructure Region of Attica- General Directorate of Development Planning, Projects and Infrastructure Region of Attica- General Directorate of Sustainable Development and Climate Change



	<ul style="list-style-type: none"> • Region of Attica- General Directorate of Sustainable Development and Climate Change/National contact point for LIFE in Region • Region of Attica- Directorate of Engineering works • Region of Attica- Regional Unit of Eastern Attica-Directorate of Engineering works • Region of Attica- General Directorate of Sustainable Development and Climate Change - Directorate of Environment and Climate Change • Region of Attica- HUB Directorate of Engineering works • Region of Attica- HUB Directorate of Environment • Decentrized Administration of Attica region - General Directorate of Spatial Planning & Environmental Policy - Directorate of Water Resources • Decentrized Administration of Attica region - General Directorate of Spatial Planning & Environmental Policy - Directorate of Environment and Spatial Planning • Ministry of Environment- General Directorate of Water Resources • Ministry of Environment- Directorate of Protection and Management of Aquatic Environment • Directorate of Water Services Planning and Management • Ministry of Environment- General Secretariat of Environment and Water Resources • Ministry of Environment- General Secretariat of Environment and Water Resources • Ministry of Environment- National Contact Point for LIFE Climate Action/ GREEK LIFE TASK FORCE • Ministry of Environment/ GREEK LIFE TASK FORCE/Prasino Tameio • Municipality of Pireaus • Municipality of Athens City • Municipality of Koropi • Municipality of Koropi/Water and Sewerage Office • Municipality of Koropi/ Directorate of Technical Services- Department of plumbing, land improvement works and water supply/sewerage • Municipality of Koropi/Directorate of Environment and Green Areas • Municipality of Marathonas • Municipality of Marathonas/Department of Hydraulic & Land Improvement Works • Municipality of Marathonas/ Department of Water Supply and Green Areas • Municipality of Marathonas/ Department of Environment and Green Areas maintenance • Municipality of Rafina Pikermi • Municipality fo Rafina Pikermi/ General Secretariat of Municipality • Municipality of Saronikos
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	<ul style="list-style-type: none"> • Municipality of Saronikos/ Directorate of Technical Remunerative Services & Infrastructure Projects • Municipality of Saronikos/ Directorate of Technical Remunerative Services & Infrastructure Projects - WATER SUPPLY • Municipality of Saronikos/ Directorate of Environment and Quality of life • Municipality of Saronikos/Deputy Mayor for Technical Services, European Programs and Tourism • Municipality of Markopoulo-Mesogaia • Municipality of Markopoulo-Mesogaia/Directorate of Technical Services • Municipality of Markopoulo-Mesogaia/Department of Engineering works and Studies • Municipality of Markopoulo-Mesogaia/Department of Water supply and sewerage • Municipality of Markopoulo-Mesogaia/Department of Water supply and sewerage • Municipality of Markopoulo-Mesogaia/Department of Water supply and sewerage • Municipality of Spata -Artemida • Municipality of Lavreotiki • Municipality of Vari-Voula-Vouliagmeni • Municipality of Paiania Glyka Nera • Mayor of Water supply and sewerage • Municipality of Dionisos • Municipality of Acharnes Thrakomakedones • Municipality of Acharnes Thrakomakedones/ Directorate of Environment and Green areas • Ministry of Environment/ /Prasino Tameio • Municipality of Athens
<p>Uninformed Citizens, Media and Culture</p>	<ul style="list-style-type: none"> • Ecocity • Elliniki Etaireia Prostatias Fysis • WWF Greece • Greenpeace Greece • Real Group (Radio, Press, Digital) • Ert/Klima • Sto Kokkino Radio/ Radio Show The Union • Efsyn + Sto Kokkino Radio/Art And The City Radio Show/Coultoural Reportage • Athens 984 Radio • Lifo / Free Press For Athens City • Alpha Radio Station • Athensvoice/ Free Press- Radio • Athensvoice Free Press- Radio /Environment Column • Kathimerini- Online And Press Newspaper • Naftemporiki.Gr- Online And Press Newspaper • I-Efimerida.Gr Online Newspaper • Avgi.Gr - Online And Press Newspaper • Sto Kokkino Radio/ Radio Show The Union



	<ul style="list-style-type: none"> • Efimerida Ton Syntakton/ Online Newspaper • Archelon • EcoREC • Greenagenda.Gr • Ecotec.Gr • Skai Tv & Radio • Myota.Gr • Newspaper Dimoprasion • Ypodomes.Gr Newspaper • Efimerida Ton Syntakton/ Online Newspaper • Eleftheros Typos Newspaper • Proto Thema Newspaper • Aygi Newspaper • Athenian Macedonian News Agency • Eco Enimerosi.Gr • Athenian Macedonian News Agency • Water & Waste Online Press • Athenian Macedonian News Agency • Aftodioikisi.Gr Portal For Local Authorities • Ingr-To Vima-Ta Nea Newspapers • Ethnos Newspaper • Agronea.Gr • Piraeus365.Gr • Ta Nea Newspaper • Kathimerini- Online And Press Newspaper • To Vima Newspaper • Naftemporiki.Gr- Online And Press Newspaper • Skai Tv & Radio • Real News Newspaper • Ecozen.Gr • Insider.Gr
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DS4 Atlantic – Zeeland

Quintuple Stakeholder Type	Helix	List of Organisations
Academic System		<ul style="list-style-type: none"> • Universiteit Utrecht • Hogeschool Zeeland • TU Delft University • KWR
Industry and Economic System		<ul style="list-style-type: none"> • Watersnoodmuseum te Ouwerkerk • Rijkswaterstaat • Nelen & Schuurmans • Nok • Zelfstandige • EVIDES • IKEA • De Watergroep



	<ul style="list-style-type: none"> • Waterschap
State, Government and Political System	<ul style="list-style-type: none"> • Ministerie van Infrastructuur en Waterstaat • Waterschap Hollandse Delta • Hoogheemraadschap Schieland en de Krimpenerwaard • Gemeente Rotterdam • Gemeente Schouwen Duiveland • Provincie Zuid-Holland • Provincie Zeeland • Gemeente Reimerswaal • Gemeente Vlissingen • Gemeente Dordrecht • Rijkswaterstaat • Gemeente Middelburg • waterschap Hollandse Delta
Uninformed Citizens, Media and Culture	

DS5 Arctic – Troms-Finnmark

Quintuple Stakeholder Type	Helix	List of Organisations
Academic System		<ul style="list-style-type: none"> • UiT - The Norwegian Arctic University • CARE- Center for avalanche research and education • NOFIMA • Nord-Troms videregående skole • Institute of Marine Research • Veterinærinstituttet • Senja Næringshage AS • Blått kompetansesenter • Nordkapp Videregående Skole • Dyrøyseminaret • Akvaplan Niva • KUPA • Møreforskning • Lerøy Aurora AS • Halti Næringshage
Industry and Economic System		<ul style="list-style-type: none"> • Profio Ltd • Totalrenovering • Total eiendom • Sweco • Asplan viak • Multiconsult • Norconsult • Pellerin • NODA • NFTR • Nord-Norsk arkitektforening



	<ul style="list-style-type: none"> • Arkitektur og planlegging • Hamperokken arkitekt • TOFAN Arkitektur • Arkitektkontoet Armundsen • Arnestedet • Barlinhaug • Besteforeldrenes klimaaksjon • Frabene • UN Global Compact Norge • Statsbygg Nord Tromsø Administrasjon • Arktos Arkitektur AS • Utpost AS • Lo:Le Landskap og plan AS • Forening/interesseorganisasjon fiskeri / havbruk • Waste • Fiskarlaget Nord • Norges fiskarlag • Norges kystfiskarlag • BIVDU • Norges Råfisklag • Fiskarlaget Nord • BIVDU • SjømatNorge • Sintef Ocean AS • Marine Harvest AS • Nordlaks AS • Grovfjord Mek. Verksted AS • REFA AS • Haplast AS • Arnøylaks AS • Lerøy Aurora AS • Salaks AS • NSK AS • Nordavind utvikling • FHF • Mattilsynet • JMHansen • Harstad Mek. Verksted • Gratangllaks AS • Sparebanken Nord-Norge
<p>State, Government and Political System</p>	<ul style="list-style-type: none"> • The Norwegian Coastal Administration • The Norwegian Energy Regulatory Authority • The Norwegian Public Roads Administration • County Governor Troms and Finnmark • County council administration • Tromsø municipality (Planning Department, Municipal Council, Planning Department (cultural heritage), Information dept., Planning Department (climate, environment, agriculture), Business development) • (NVE) Norwegian Water Resources and Energy Directorate



	<ul style="list-style-type: none">• Troms and Finnmark County (TFFK)• Norwegian Geological Survey (NGU)• Tromsø Municipality• Klimanettverk Nord-Norge Alta kommune• Husbanken nord• Kommunalbanken• iTromsø• Nordlys• ND Nordnorsk debatt• Tromsø By• DSB region Nord-Norge• Tromsø havn• ARC-center• Ungdomsrådet Tromsø• Public administration, Norwegian Food Safety Authority• County Governor - Statsforvalteren.no• Directorate of Fisheries• The Norwegian Mapping Authority• Norwegian Food Safety Authority• Samediggi• Statens vegvesen• Avinor• Forsvarbygg• Kysverket• Alta Municipality• Balsfjord Municipality• Bardu Municipality• Båtsfjord Municipality• Berlevåg Municipality• Dyrøy Municipality• Gamvik Municipality• Gratangen Municipality• Hammerfest Municipality• Harstad Municipality• Hasvik Municipality• Ibestad Municipality• Karsajok Municipality• Karlsøy Municipality• Kautokeino Municipality• Kvæfjord Municipality• Kvænangen Municipality• Kåfjord Municipality• Lavangen Municipality• Lavangen Municipality• Loppa Municipality• Lyngen Municipality• Målselv Municipality• Måsøy Municipality• Nesseby Municipality• Nordkapp Municipality
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	<ul style="list-style-type: none"> • Nordreisa Municipality • Porsanger Municipality • Salangen Municipality • Senja Municipality • Skjervøy Municipality • Storfjord Municipality • Sørreisa Municipality • Sør-Varanger Municipality • Tana Municipality • Tjelsund Municipality • Vadsø Municipality • Vardø Municipality • Vest-Finnmark Regional Council • East-Finnmark Regional Council • North-Troms Regional Council • Hålogalandsrådet (Regional Council) • Tromsø-area Regional Council • Middle-Troms Regional Council • Statsforvalteren • Miljødirektoratet
Uninformed Citizens, Media And Culture	<ul style="list-style-type: none"> • Hansjordnesbukta Residents' Organisation • Gyllenberg and Prestvannet Residents' org. • The Old City of Skansen • The Old City Entrepreneurs • Stiftelsen Tromsø Gamleby • Framtiden i våre hender • Naturvernforbundet

DS6 Boreal – Zemgale

Quintuple Stakeholder Type	Helix	List of Organisations
Academic System		<ul style="list-style-type: none"> • Latvia University of Life Sciences and Technologies • University of Latvia. Faculty of Geography and Earth sciences • RTU ZIC • RTU (Eit Climate-kic hub latvia representative) • SIA AC Konsultācijas • Beetroot Lab, RAKUS • Forest Research Institute Silava UL ĢZZF on the seashores
Industry and Economic System		<ul style="list-style-type: none"> • MEDITEC SIA • ZZ Dats SIA • Sun Gis SIA • SIA "JELGAVAS ŪDENS" • Centre for Environmental Initiatives • Zemgale Regional Energy Agency • Latvian Peat Association



	<ul style="list-style-type: none"> • Latvian Pig Breeders' Association (LCAA), • Latvian Biogas Association • SIA E-DAUGAVA - Hazardous waste recyclers in Salgale parish • Gren Latvija • Rasma Draška, IK • Association of Latvian Water Supply and Sewerage Companies
<p>State, Government and Political System</p>	<ul style="list-style-type: none"> • Ministry of Environmental Protection and Regional Development of the Republic of Latvia • Latvian Environment, Geology and Meteorology Centre • Jelgava Municipal Operational Information Centre • Zemgale planning region • Jelgava municipality • Aizkraukle municipality • Jekabpils municipality • Bauska local administration • Bauska municipality • Jelgava Minicipalitu Kalnciems local administration • Līvberze local administration Jelgava municipality • Administration of the Municipalities Cenas and Ozolnieki • Salgales local administration Jelgava municipality • Administration of the Municipalities Cenas and Ozolnieki • Jelgava regional municipality • Jelgava city municipality • Dobeles municipality • Latvian Rural Advisory and Education Centre • Jelgava State City Municipal Institution "TownShip" • State Environmental Service • Municipality, youth NGO, Bauska Life, secondary schools, • LADRažotājus -producers
<p>Uninformed Citizens, Media and Culture</p>	<ul style="list-style-type: none"> • Salgale parish Support Association • Zemnieku Saeima • Zemgale Regional Energy Agency • Zemgale NGO Centre • Latvian fund for nature • World Wide Fund for Nature • Fridays for future Latvia • Green liberty • BEF Latvia • Zemgales ziņas • Latvijas Avīze • Latvijas Vēstnesis • National Information Agency LETA • Zemgale - local newspaper in Dobeles municipality • Staburags - local newspaper in Aizkraukle municipality • Bauskas dzīve; local newspaper • 'Salgale Support Society', Board

	<ul style="list-style-type: none"> • Baltic coasts
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DS7 Mountain – Valle dei Laghi

Quintuple Stakeholder Type	Helix	List of Organisations
Academic System		<ul style="list-style-type: none"> • Moby GIS (Waterjade) • Fondazione Mach • Uni Trento (civil and environmental engineering) • Museo delle Scienze Trento • Centro di sperimentazione Laimburg • Politecnico di Milano • EURAC • Trentino Innovation
Industry and Economic System		<ul style="list-style-type: none"> • Cantina Toblino • Coldiretti Trentino- Alto Adige • Vivai Cooperativi Padergnone • GEAS s.p.a. • Distilleria Pisoni • Pisoni vini • Azienda Agricola • Maxentia • Salvetta • ValorItalia • Poli - Santa Massenza • Vignaioli del Vino Santo Trentino • Vini del trentino • Cantine Ferrari - grapes from VdL, high commitment to sustainability • Cooperativa Ortofrutticola Valli del Sarca • Cassa Rurale Alto Garda Rovereto • Ecoopera • Associazione Trocoltori Trentini • Novareti • Trentino Acque • AGS - Alto Garda Servizi • ASM Tione • CIA Agricoltori Italiani • Consorzio Difesa Produttori Agricoli Trento • Itas Assicurazioni - Business Analyst - settore Assicurativo • Biodistretto Valle dei Laghi • CIA Agricoltori Italiani • Hydro Dolomiti Energia • ASM Tione • Production and trade of hydraulic machines • Soprintendenza beni Culturali Provincia di Trento • PAT - Servizio Bacini Montani



<p>State, Government and Political System</p>	<ul style="list-style-type: none"> • BIM Sarca (Partner), Parco Fluviale del Sarca • APPA • Municipality of Madruzzo • APT Trentino Garda • Municipality of Cavedine • Municipality of Vallelaghi • Consorzio promozione turistica Valle dei Laghi • Provincial superintendence on cultural heritage • Protezione Civile PAT - Servizio Prevenzione Rischi - Ufficio dighe • Protezione Civile PAT - Servizio Prevenzione Rischi - Ufficio previsioni e pianificazione • Protezione Civile Trentino • CSEN Trentino (sport and tourism) • COMIFO - Federazione provinciale Consorzi irrigui e Miglioramento fondiario • Consorzio irriguo Calavino • Consorzio irriguo Ciago • Consorzio miglioramento fondiario Comprensorio Piano Sarca • Consorzio irriguo Fraveggio • Consorzio miglioramento fondiario Monte Terlago • Consorzio miglioramento fondiario Padergnone • Consorzio miglioramento fondiario Santa Massenza • Consorzio irriguo Terlago • Consorzio miglioramento fondiario Trebi-Pozze • Consorzio miglioramento fondiario Valle di Cavedine • Consorzio irriguo Vezzano • Sovrintendenza Beni Culturali Trento
<p>Uninformed Citizens, Media and Culture</p>	<ul style="list-style-type: none"> • Ecomuseo VdL • Amici della Sarca • Associazione Goever Cereali del Trentino • Associazione Olivo Estremo VdL • Volontariato Protezione Civile - associazione Nu.Vol.A • Citizen • Associazione Rotte Inverse • Biblioteca Valli di Cavedine • Associazione "Il Fotogramma" • SAT Società Alpinisti Tridentini • SAT Valle dei Laghi • Cooperazione Trentina • Comunità Vallelaghi, socio azienda agricola Biovallelaghi, delegato permanente conferenza PFS • Comunità di Valle dei Laghi (Commissario) • Agraria Riva del Garda (presidente) e Consorzio Arco-Riva(presidente) • Legambiente Trento, Università di Trento • Associazione sherwood -Citizen groups (grassroots organisations, neighbourhoods, community centres, etc.)



Annex 3: Internal Guidance Documents to support Demo-Sites

The below Guidance Documents were sent out to DSs to support them throughout the processes developed by WP1.

- [Guidance 1: SH Identification and ToCs](#)
- [Guidance 2: SH Analysis and Survey](#)
- [Guidance 3: SHE, Co-creation and communications](#)

Guidance 1: SH Identification and ToC

Executive Summary

Stakeholder identification is the process of brainstorming, listing, and storing of basic information about the individuals, organisations, groups, networks and local initiatives that are affected by or affect the IMPETUS project.

Stakeholder identification along with narrowing down the scope of activities and desired impact is an **important part of designing the successful intervention and developing a shared vision for climate adaptation in your region**. It has been seen in the literature and in practice that by including local stakeholders in a participatory manner supports an improved design of local interventions and their ownership of the project and its impact. Having local stakeholders input can help researchers and other project partners to understand what is needed from the community perspective and how specific actions of these stakeholders can drive the necessary change.

For the IMPETUS Project, stakeholder identification will be done by mapping stakeholders across the Quintuple Helix stakeholders groups (listed in Annex 4).

Below is a summary of the steps of the stakeholder identification process as a first step to the overall IMPETUS Stakeholder Engagement and Co-Creation plan.

Stakeholder Identification Steps		Timeline
1	Collective Brainstorm of Demo-Site Theory of Change (ToC) <i>ToC Infographic developed</i>	All steps must be completed by Mid-February 2022
2	Identify the Quintuple Helix Stakeholders <i>Stakeholder Register started</i>	
3	Address Gaps in Stakeholders <i>Stakeholder Register drafted</i>	
4	Outreach to Stakeholders to get Involved in Demo-Site <i>Stakeholder Register updated with positive responses</i>	

Stakeholder identification and mapping of the ToC is an iterative and dynamic process. As your Demo-Site (DS) evolves throughout the project, you may find that new stakeholders are needed to support actions, outputs or outcomes to achieve your desired DS impact. Additionally, unanticipated issues or unexpected results may arise which might shift the outcomes and impacts, or the way you get there. It will be important to note these throughout and to update the ToC infographic and Stakeholder Register throughout the project.

Use the rest of this document to support you in brainstorming your DS ToC and stakeholders. We have listed practical steps and guidance, along with annexes with examples and further information.



Steps for Stakeholder Identification

What or who is a stakeholder? People, entities or organizations that are affected by or affect the project (Freeman, 1984).

Stakeholder identification is the process of brainstorming, listing, and storing of basic information about the individuals, organisations, groups, networks and local initiatives that are affected by or affect the IMPETUS project.

Stakeholder identification is an important part of the entire stakeholder engagement process, because without it, “ad hoc identification of stakeholders has the potential to marginalise important groups, bias results and jeopardise long-term viability and support for the process” of the project, co-creation, and solution implementation (Reed et al., 2009).

For the purposes of the IMPETUS Project, stakeholder identification will be done by following the process below, explained in further detail in the subsequent sections of this chapter:

Stakeholder Identification Process:



above will be explained in further detail.

1) **Collective Brainstorm:** To clearly **define the scope** and objectives of the demo-site (DS), in other words, the context within which you are working, and the potential outcomes and impact you anticipate; this is also known as a **Theory of Change (ToC)** approach (Belcher, Davel, & Claus, 2020). During the collective brainstorm, you can also begin to anticipate which stakeholders you will need to involve at the different steps of the ToC.

2) **Identify the stakeholders** and list them in the Stakeholder Register, building off of the brainstorm. The Stakeholder Register is an Excel file template (See Annex 2) that accompanies this guidance where you will list all your stakeholders and store information about them.

3) **Address Gaps** in the stakeholder list that become noticeable when you have listed them all.

4) **Preliminary outreach** to stakeholders to be involved in your IMPETUS DS. A first outreach to all stakeholders to see if they are interested to join the DS for the duration and beyond the project.

In the next sections, each of the steps in the process

Define the Scope of your DS: Context, Outcomes and Desired Impact: Theory of Change

SUMMARY OF STEPS TO UNDERTAKE

- **Workshop:** Convene your DS partners and core stakeholders (i.e. the ones you already have onboard) in a workshop to discuss and brainstorm the scope, objectives and impacts of your DS, i.e. your ToC for the DS.
- **Brainstorm:** Print out the ToC infographic template (Figure 1, Annex 1) or recreate it digitally and take notes, brainstorm, and think through each step. More details below.
- **Preliminary Stakeholder Identification:** Think of the stakeholders broadly in this step and start listing them in the Stakeholder Register as needed, working towards the next step.
- **WP4:** DS Specific KPIs to be mapped and integrated into the ToC Infographic – More details below in Section 1.1.1.
- **Deadline:** Mid February 2022 (!)

WP1 Deliverables:

Once you are done with the brainstorming, please upload your ToC Infographic to your respective DS folder in WP1 > T1.1. SharePoint folder and/or send us a copy. This material will help WP1 produce its deliverables. Data will be treated confidentially and in an anonymized form.

As mentioned above, an important first step in order to identify the stakeholders in your DS is to clearly define the scope and context of your DS, as well as your desired outcomes and impact (Reed et al., 2009); in other words, a ToC model as seen in Figure 1 below.

We are using a ToC approach to outline the scope and desired impact of each DS to ensure all DS partners and core stakeholders can collaboratively **consider all assumptions, actions, barriers and stakeholders needed at specific steps to achieve the intended outcomes and impact of the DS** (Bozeman, 2003). Including stakeholders from the beginning in the ToC scoping process enables the identification of societally relevant outcomes that are embedded and validated by the community (Bozeman, 2003; De Silva et al., 2014) in which the climate change adaptation solutions will be developed. It will also be important to review and reflect on the ToC several times throughout the project with additionally identified stakeholders in the coming months to ensure their voices and perspectives are embedded into the ToC.



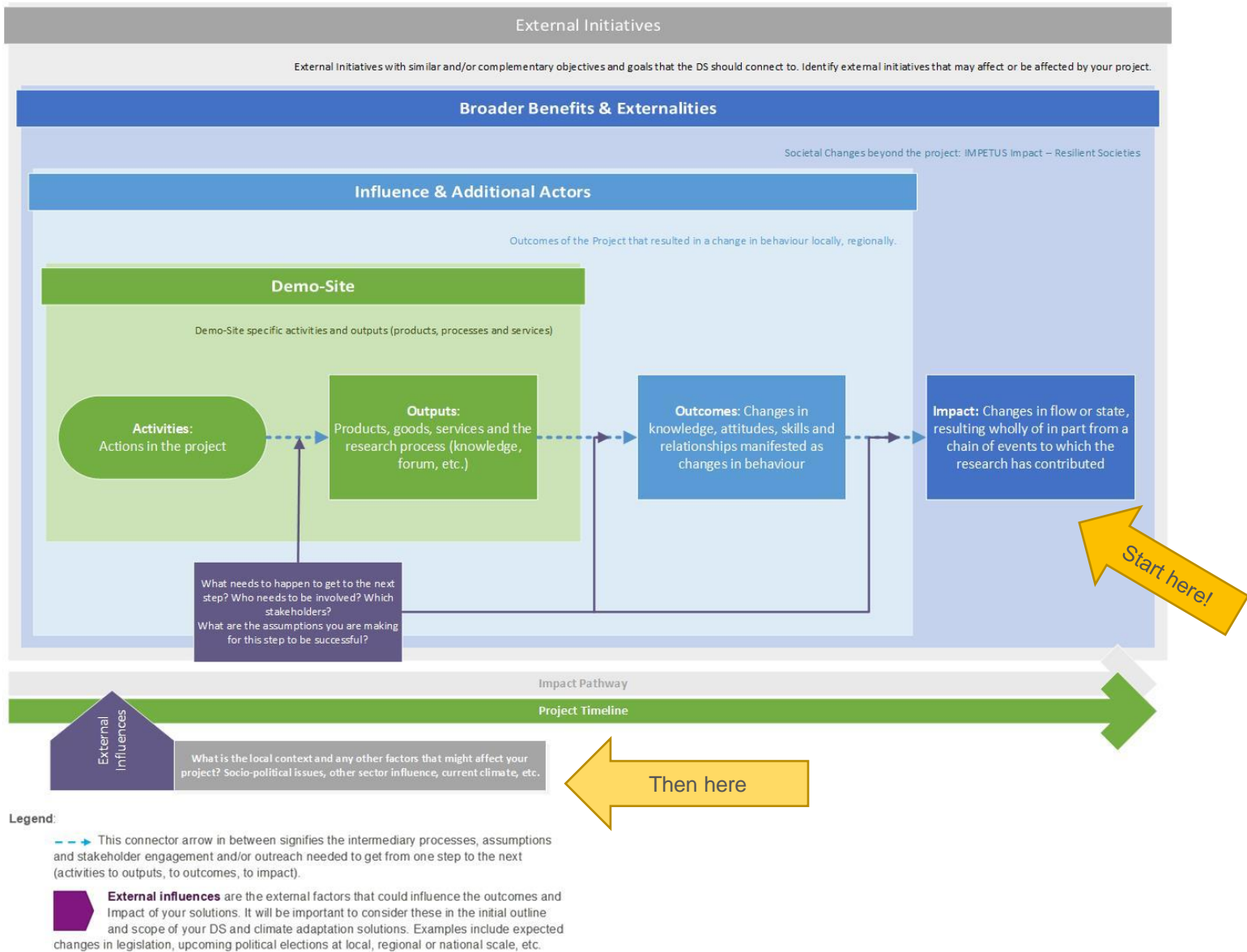


Figure 9 Theory of Change Infographic



Use the templates below to brainstorm and outline the context and ToC with your DS partners and core stakeholders (if any already engaged) during an online or in-person work shop.

Figure 1 is a ToC infographic template to support you in effectively mapping the scope and ambitions of your DS. In [Annex 1](#), we showcase two examples of what this might look like once the initial round of brainstorming is completed. On the IMPETUS SharePoint, you will find a blank Microsoft Visio ToC infographic template. **You may want to print this out on a big sheet of paper to brainstorm with post-its, or recreate it digitally in a program of your choice.**

As you are brainstorming the ToC, you can already start listing in the Stakeholder Register the stakeholders that come up during the process. In [Annex 2](#), you find a screenshot of what the Stakeholder Register Excel template looks like. The Excel file is provided to you together with this guidance document in SharePoint.

Tips for Brainstorming the ToC with Partners and Stakeholders:

- 1) Use as many boxes, bubbles and arrows for each item as you need.
- 2) Map everything on one ToC infographic, even if it gets complex.
- 3) List only one item per box (i.e. activity, output, outcome).
- 4) We recommend to do this using a big paper if in person, or an online drawing tool if online.

We recommend to **start by identifying the broader impact you want your DS to have** and to work backwards ('backwards mapping' (Maini, Mounier-Jack, & Borghi, 2018)). By starting at the broader societal impact you want your DS to have, you can then identify the actions that are needed to get there. **The next step then is to identify the broader context and/or system** (external influences, external initiatives) within which the DS and its solutions are being developed to identify potential tipping points where change can occur to support the actions by the DS in the ToC (Maini et al., 2018). In other words, in mapping external influences and initiatives, you may find elements that support or negatively influence the progress between outputs to outcomes to impact.

Below is a list of definitions for each step and the ToC:

Table 5 Definitions of Theory of Change Infographic Elements

Definition of Step	Timeline	Example
Impact: Societal changes beyond the project control that bring about broader benefits and externalities in terms of climate adaptation locally and to which the project outputs and outcomes have contributed	Beyond project timeline	Example: Improved resilience of infrastructure against flooding; improved resilience of local communities to flooding (e.g. because of the implementation of early-warning systems for the population), etc.
Outcomes: "Change in knowledge, attitudes, skills and relationships manifested in changes in behaviour" (Belcher et al., 2020). Outcomes are broader than the DS and the IMPETUS project, and are about influencing project stakeholders and other additional actors to bring about wider change by for example adopting the solutions developed in IMPETUS	Within project timeline + about 2 years	Example: Improved awareness of citizens and policy maker about climate change impacts and risk; new/improved climate adaptation policies and funding; new/improved stakeholders collaboration for the design and implementation of adaptation plans. These outcomes derive mainly from the use of IMPETUS tools, but it could also be that IMPETUS was only a contributor to these outcomes if its results/tools were embedded in existing local initiatives
Outputs: The products, processes and services resulting from the activities conducted in the project	Within project timeline	Example: Digital Twin, Guidebook, Communications Materials, pilot adaptation solution (e.g. beach restoration), pilot early warning system,



		computer models, databases, scientific publications, reports, etc.
Activities: Actions you take in the project to deliver outputs	Within project timeline	Example: Designing the digital twin, gathering input from stakeholders, designing the guidebook, facilitating demonstrations, training end users, etc.

(!) Tip

During your ToC brainstorming, start using the Stakeholder Register to write down stakeholders that come to mind, or write them on your DS ToC Infographic.

Once the brainstorming is complete, then you can move on to the next step of listing all stakeholders in the Stakeholder Register and identifying any gaps.

In the brainstorming of the activities, outputs and outcomes needed to achieve the desired impact within the DS ToC, it will be particularly important to start thinking about what the assumptions are to progress from one objective to the next (e.g. from activities to outputs, from outputs to outcomes, etc.). The assumptions are indicated by the blue dotted arrows in the infographic. Mapping the assumptions and being aware of them may help to clarify the process, context and actions needed as they manifest throughout the project (Kitson et al., 2018).

This is also an important opportunity to identify which stakeholders can support or be responsible for progressing these various steps (Maini et al., 2018). In making this explicit in the brainstorming phase, you can better understand the actions, roles and responsibilities of stakeholders and strengthen accountability and progress during the project (Maini et al., 2018).

Table 2 below provides questions and concepts to consider when brainstorming the ToC of your DS and offers some additional explanations of the infographic elements. Consider the questions in the second column when brainstorming the items of the ToC.

What is an assumption?

An assumption is the conditions that you expect are in place in order for a specific step/action or progress to occur. For example, political interest is a pre-condition for an output to turn into a policy, or data availability is a pre-condition for a model/toll to be developed/populated .

If these are not available, then you need to take action to make the change happen.

See also Annex 1 for more examples.



Table 6 Questions and Considerations in Brainstorming Theory of Change

Steps	Questions to consider
<p>Impact: Societal changes beyond the project</p>	<p>What influence/impact do we hope to have (locally, regionally, nationally) with this DS?</p> <p>What is the broader societal ambition we hope to achieve?</p> <p>Which resilience and climate adaptation impacts?</p>
<p>Outcomes: Behaviour changes locally as a result of awareness, knowledge gained, change in relationships, new skills</p>	<p>Which stakeholders do we need to support us on the outcomes?</p> <p>What are the expected actions we hope partners / local stakeholders to take to translate Outcomes into Impact?</p> <p>What are the desired outcomes? What are our assumptions for this to occur successfully?</p> <p>Which challenges do we foresee?</p>
<p>Outputs: The products, processes and services resulting from the activities conducted in the project</p>	<p>Which stakeholders do we need to support us on the outputs?</p> <p>What are the expected actions we hope partners / local stakeholders to take to translate Outputs into Outcomes?</p> <p>What are the specific objectives with this DS?</p> <p>What are our assumptions for this to occur successfully?</p> <p>What is the timeline of implementation?</p> <p>Which technologies will we employ/develop?</p> <p>Which challenges do we foresee?</p> <p>What kind of knowledge do we hope to gain and/or co-create?</p>
<p>Activities: Actions you take in the project to deliver outputs</p>	<p>Which stakeholders do we need to support us on the activities?</p> <p>What are the expected actions we hope partners / local stakeholders to take to translate Activities into Outputs?</p> <p>Which challenges do we foresee?</p>
<p>External Initiatives: Mapping the external initiatives is important to understand where and to what at local, national, international scale your DS and its ambitions can connect to; linking to external initiatives means building on synergies and input from a broader stakeholder base via shared objectives and desired impacts.</p> <p>List those external initiatives in the ToC Infographic as well and the stakeholders you can contact from these initiatives.</p>	
<p>Questions to consider for each step:</p> <ul style="list-style-type: none"> - Which geographical boundary are we working within in our DS? - Which other local, regional or national initiatives can we collaborate with to bring about impact? - What is the socio-political context that may affect each step (e.g. upcoming elections, highly conflictual discussion between farmers and energy industry around water allocation, etc.)? 	



WP4 Needs

WP4 will also be asking each DS for similar information as outlined in the ToC within the same timeline of the project. The needs from WP4 in order to compile deliverable D4.1 are outlined below, **and are mostly focusing on the Activities and Outputs section of the ToC Infographic.**

D4.1. Assessment of baseline conditions of each demo site - Implementation planning and KPI.

Objective: Implementation plan and methodology for quantification of the benefits for each solution/innovation to be implemented

The table below shows the preliminary structure of D4.1, how it relates to the ToC brainstorming process, and where you can list the information.

For each WP4 Task elaborate on...	Relation to DS ToC	Where to list information
Solution / Innovation description <ol style="list-style-type: none"> 1. Challenge addressed and objective of demonstration 2. State of art 3. Technical description 4. Data requirements and availability of data/models 5. Added value and replication potential 6. Potential barriers (risks) and drivers 7. DS specific KPIs*: how to measure success of implementation and reaching the objective 	<ol style="list-style-type: none"> 1. Not applicable (N/A) 2. N/A 3. N/A 4. Assumptions, context within ToC infographic between Activities to Outputs 5. N/A 6. Assumptions, external influences to be listed in ToC infographic 7. In mapping the ToC, you will automatically be defining the KPIs with the stakeholders. You will need to define process and content KPIs, see Annex 1 Example 2 for examples of KPIs. 	<ol style="list-style-type: none"> 1. D4.1 2. D4.1 3. D4.1 4. ToC Infographic + D4.1 5. D4.1 6. ToC Infographic (see Annex 1.) + D4.1 7. D4.1
Role of partners and stakeholders	List within the ToC infographic as (1) assumptions, (2) roles and responsibilities to progress through the ToC, and (3) also in the Stakeholder Register.	D4.1, ToC Infographic and Stakeholder Register
Actions and Timeline	This will also be mapped in the ToC infographic. But for each WP4 task specifically, you will need to provide more detailed planning of the activities.	ToC Infographic + D4.1
Cross-task fertilization / bundle management	N/A	D4.1
Relation to other WPs	N/A	D4.1: Need to elaborate how DSs will work with a stakeholder engagement and co-creation plan developed with WP1 and that they will closely collaborate with WP1 for its implementation, monitoring and evaluation.



		Similar explanations for the other WPs. WPs and DSs coordination excel (sent by WP1, only for what concerns stakeholder engagement).
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*KPIs as per Task 4.1.1. are DS specific indicators to measure the impacts reached by implementing the solution. KPIs will be defined in consultation with core stakeholders in the first 6 months of the project and validated thereafter with additional stakeholders throughout the duration of the project. For the sake of the ToC, KPIs need to be identified for the outputs, outcomes and impacts. In particular for impact KPIs, these will be considered through proxies as impact will manifest long after the end of the project. For example, one KPI could be the embeddedness of the solutions within the existing and on-going initiatives such as regional climate adaptation plans.



Identify Stakeholders & Address Gaps

SUMMARY OF STEPS TO UNDERTAKE

- During or at the end of the brainstorming session on the ToC, you can already start **listing the stakeholders and external initiatives in the Stakeholder Register** by their name and which Quintuple Helix (QH) Stakeholder Group and function they belong to.
- As you list the stakeholders and initiatives, you may start to notice some gaps in the representation of specific groups or that you have a dominant group and you miss representation in other groups, or that you do not have much information about specific external initiatives.
- At this point, consider who else could be involved from the other QH sectors and functions and **find a balance** in groups, functions and gender. Also research the external initiatives (goals, objectives, ambitions and contact person).

For any stakeholders where there are gaps in representation and/or you do not know a specific person in the group or organisation you may wish to follow the below sequence of steps:

1. First **mapping the stakeholder groups** within the **Quintuple Helix** Stakeholder sectors;
2. Then narrowing down the **stakeholder functions within each stakeholder group you will need**;
3. **Then identify the organisations** where these types of stakeholders can be found;
4. Then finally **narrowing down to the specific individuals** in these organisations, **considering a balance** in their roles, expertise, gender, age, ethnicity, etc.; and

Deadline: Mid-February 2022 (!)

The Stakeholder Register already provides stakeholder groups.

If the scope, broader context, activities and desired impacts of the DS are clearly defined, then stakeholders can be relatively easily identified; in outlining the ToC, and considering the external influences and initiatives, you can **broadly identify different stakeholders who can affect or be affected by** those elements at each step of the implementation of your DS's solutions, and who to involve when.

However, even if the boundaries of the DS are well understood, there is **always a risk that some stakeholders may be omitted** due to bias, lack of awareness, etc. Furthermore, there is also a risk that it might be impossible to include all stakeholders and a limit must be fixed based on legitimate criteria established by the DS Team. Such limits may include geographics like the boundary of a water-basin or a region or stakeholder roles depending on the focus and needs of the DS (Reed et al., 2009).

In order to address these issues, it will be important to iteratively discuss with the core stakeholders who could be missing and who needs to be involved from the very beginning to ensure a complete view of the project and its outcomes within the local context. Failure to involve all the right stakeholders could mean that a skewed narrative emerges within a narrow perspective (Maini et al., 2018).



Identify and List Stakeholders

To identify stakeholders, you can use **snowball sampling** and/or **focus groups** as methods (See Annex 3 for details on these methods) to brainstorm with the DS partners and any already involved core stakeholders, and **list the broad stakeholder groups** for each of the QH stakeholders.

List the preliminary ideas of the groups in the Stakeholder Register (Annex 2 and Excel file). Annex 4 illustrates examples of stakeholder groups in each of the QH sectors and the Stakeholder Register contains a dropdown menu with the options of stakeholder groups and functions to choose from.

In your scope brainstorming, you should have also identified external initiatives that might align well with the goals of your DS. Be sure to also list the specific contacts within these initiatives in the Stakeholder Register tab “External Initiative Network Map”.

Note that the **5th helix of the QH Model** is the natural environment. In the theory by Carayannis et al. 2012, the natural environment is considered as natural capital, i.e. natural resources, plants, and animals. For the purpose of this project, we will consider the 5th helix as an overarching helix with representatives within each of the other 4 helices, with possible organisations, entities and people who act on behalf of the natural environment for benefits in its own sake.

Address Stakeholder Gaps

As you fill in your stakeholder register, you may notice some gaps in the representation. For example, you may notice you have more stakeholders in one QH group than another, or a disbalance in between stakeholder functions, roles in each group, like more managers than technical staff or the other way round.

It is vital to consider these gaps and to strike a balance in the representation of the different types of stakeholders involved in your DS, such as balance in gender, strategic knowledge/network (managers, CEOs, etc.), practitioner/technical experts (civil servants, researchers, engineers, etc.), traditional/local knowledge experts (citizen groups, cultural/heritage groups, etc.) as well as balancing the QH groups. Having a balance and addressing these gaps will ensure that all the right stakeholders are on board and can contribute to the success and implementation of your goals. Again, it is vital to consider all the relevant stakeholders who can be affected by or who can affect the activities, outputs and outcomes of your DS and to balance them as much as possible.

The Stakeholders should be:

- (i) **Balanced** across the different types of stakeholder (Annex 4).
- (ii) **Relevant** in the context of the scope and the system definition (Section 1.1).
- (iii) **Representative** of a group of stakeholders (e.g., an industry association), rather than individuals (a single industry technical staff).
- (iv) **Significant** (by weighting stakeholders based on their significance to the issue at hand within the given context).
- (v) **Informed** about both the overarching issue (e.g., climate change adaptation) and the specific issue (e.g., flood risks).
- (vi) **Participative** and responsive.

Source: Adapted from (Newton & Elliott, 2016)



Other important considerations in stakeholder identification are included in the section below.

Important Stakeholder Identification Considerations

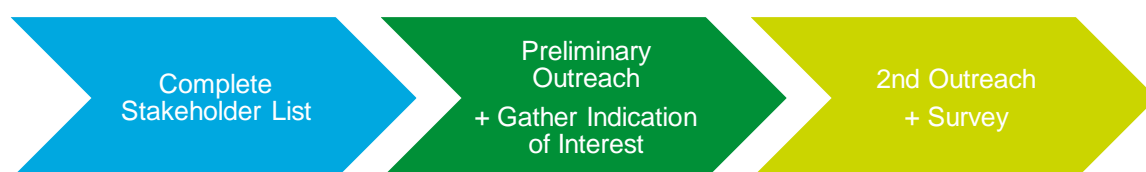
In identifying your stakeholders, it will be important to consider the below key considerations.

- It is important to note that stakeholder identification and engagement is **an evolving and ongoing process**. As the project progresses and evolves locally, you may identify additional stakeholders to involve over time who can lead to better outcomes and impact. Keep track of updates in the Stakeholder Register.
- It is important to consider several **levels of diversity** in your stakeholder identification: gender, age, ethnicity, role in the company, and any other marginalised groups. It will be important to ensure diversity and balance in bringing these groups to the table to ensure representation of a broad range of perspectives.
- Do not exclude an individual or an organisation if they are a **known opponent** of a given purpose or process. Indeed, there are often good reasons for keeping opponents on board, as these can be the people who most need to be involved so that they gain some ownership of the process and perhaps become more likely to support the final outputs (or at least, less inclined to undermine it as they might have, had they been excluded). It may prove difficult to engage these stakeholders. You will have to pay extra attention to connect to their interests and views and show them the value of joining the project activities. *Management of potential conflicts and divergent views in the stakeholder co-creation activities will be addressed in the third guidance document (Guidance for the design of a stakeholder co-creation process in IMPETUS) that we will share with you in the second half of 2022.*

WP1 Deliverables:

Once you are done with the stakeholder identification, please upload to your respective DS folder in WP1 > T1.1. SharePoint and/or send us a copy of your Stakeholder Register. This material will help WP1 produce its deliverables. Data will be treated confidentially and in an anonymized form.

Preliminary Contact with Stakeholders



Once you have brainstormed and listed the stakeholders you would like to involve in your DS, the next step is to reach out to them to present the IMPETUS project, your DS in your specific region and to invite them to contribute.

You may have already done this with some preliminary stakeholders in the region during the project proposal phase or over the first few months of the project, so be sure to list those individuals and organisations in the Stakeholder Register as well.

A **preliminary outreach to all stakeholders** is important as a first step in **building a relationship** with them if you have not already. This preliminary outreach is also important as a follow-up contact will be needed in April 2022, where WP1 will send out a survey for all stakeholders to fill out to understand their perceptions, views, opportunities, challenges and risks with regards to climate adaptation in your DS region as well as capacity and willingness to contribute to the project.



Therefore, as a first step, you can reach out to them in your preferred method based on your relationship with them. This might be by a phone call, email or other method that best suits the local realities. For email outreach, WP7 on Communications can support you in creating marketing material for your DS, such as a video, brochure, or other. They can also help you write the introduction to the IMPETUS project and a paragraph about the value-add for the stakeholders to participate. Please reach out to Laura Durnford (ld@esci.eu) at ESCI for support.

In your first outreach, include:

- Brief outline of the project;
- DS ambitions;
- An example of the stakeholder groups that will participate to the activities (to show the networking potential of joining);
- The potential contributions the stakeholders could give (e.g. knowledge, data, ideas for solutions, etc);
- The value-add for the stakeholder to join your DS; and
- Ask the stakeholder to reply with their response about their interest in being involved in the project (give them a deadline). Past the deadline, if you have not heard from them, reach out with a phone call (experience proved it is a very effective way to secure commitment!)

Keep track of their responses to participate in the Stakeholder Register.

Following this preliminary outreach to stakeholders, in April 2022 we will then ask you to send out a 2nd email with a survey link to all those who accepted to contribute.



Next Steps

After your preliminary outreach to stakeholders and tracking who is interested to participate, you may want to already engage those who replied positively in another workshop prior to the April 2022 Survey to continue fine-tuning the ToC Infographic with these additional voices and representation.

This is an **important part of designing the successful intervention and developing a shared vision for climate adaptation in your region**, as it has been seen in the literature and in practice that by including local stakeholders in a participatory manner supports an improved design of local interventions and their ownership of the project and its impact (De Silva et al., 2014; Maini et al., 2018). Having local stakeholders input can help researchers and other project partners to understand what is needed from the community perspective and how specific actions of these stakeholders can drive the necessary change (De Silva et al., 2014).

In addition, the ToC Infographic should be revisited several times throughout the duration of the project to ensure specific outputs and outcomes are occurring, and to outline any challenges that may occur (Maini et al., 2018). Evaluation of the mid-term outputs and outcomes will also be conducted in collaboration with WP1.

Please also read the email we sent to you in early December with the list of next steps for Stakeholder Engagement and Co-Creation.

References

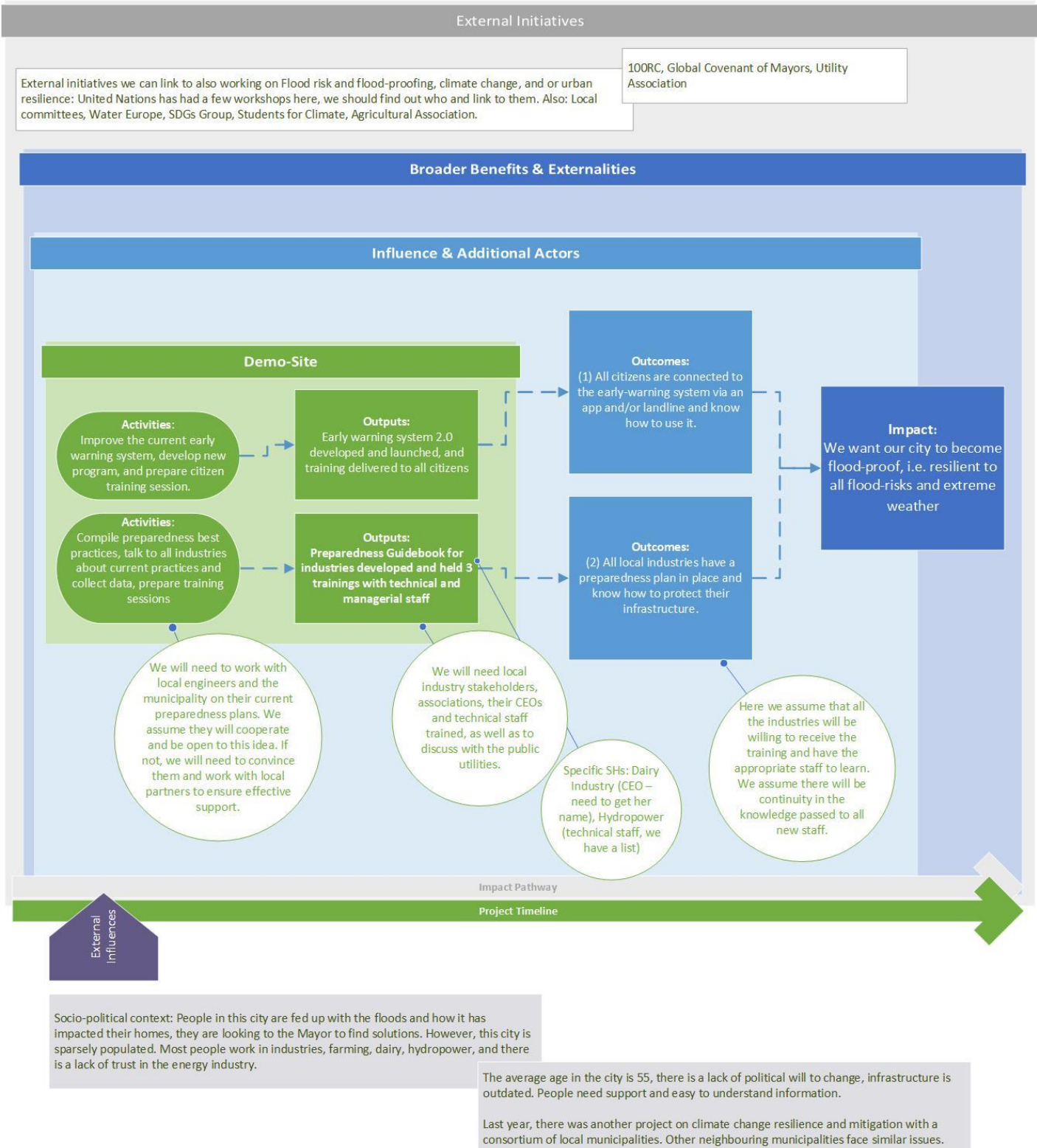
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Guidance 1 Annexes

Annex 1: Example 1 and 2 of DS ToC Brainstorm

This is an example (with the blank template following) that we ask you to fill in. By the end of your brainstorming it will be messy either on paper or in digital form. You can use Example 2 below to organise the data into tables below the ToC infographic concerning the assumptions, indicators (KPIs) and rationale (if needed).

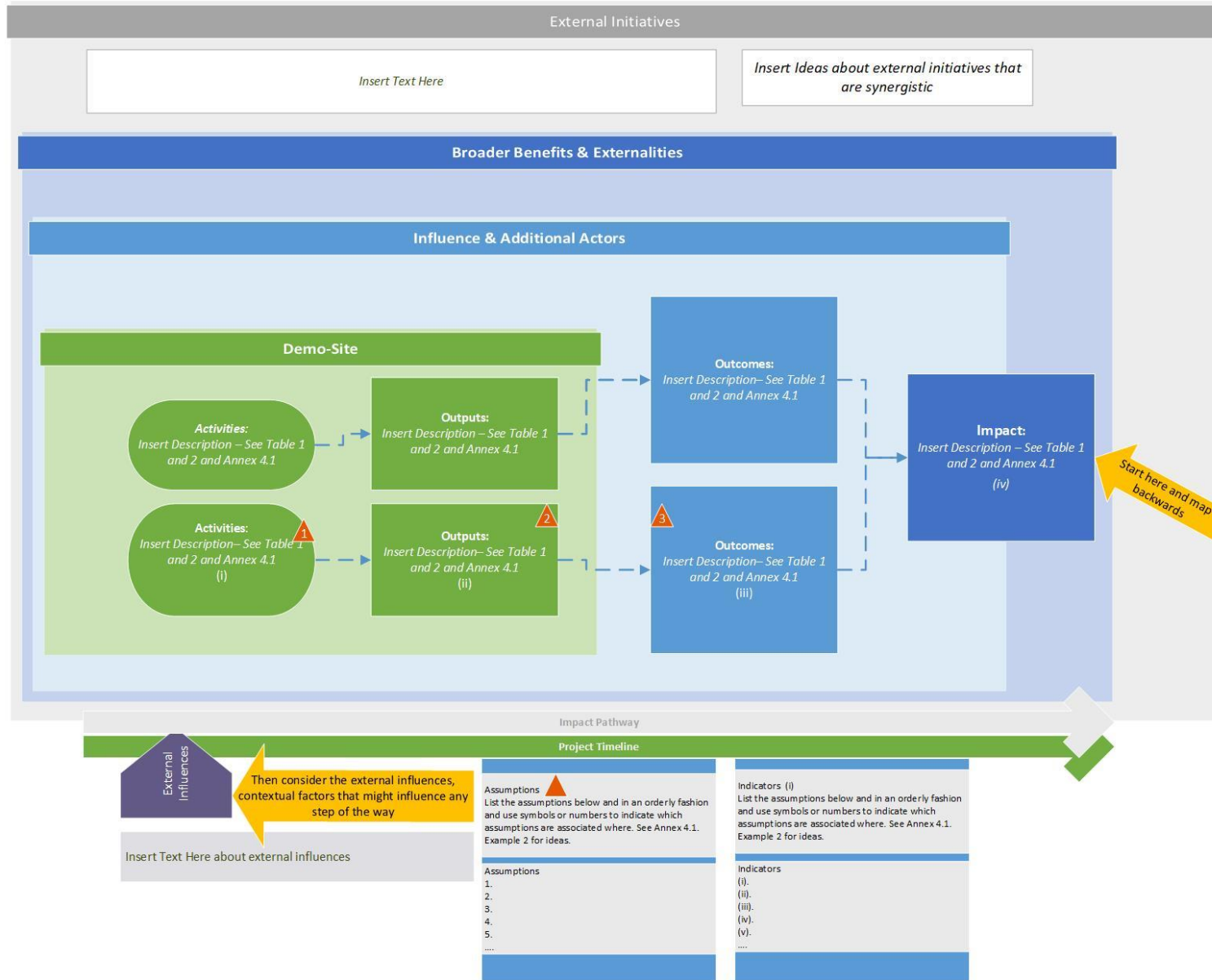


Recommendation: We recommend to print this out on a large paper and brainstorm collectively if in person, otherwise you can also recreate this ToC in another digital tool and collectively brainstorm and add boxes, ideas and assumptions. See Annex 4.1 for ToC Examples

Note: Use as many boxes, connectors and bubbles as you need for your activities, outputs, outcomes and impact.

Note: As you start thinking about stakeholders, start to list them in the Stakeholder Register excel sheet.

Recommendation: You can also list the assumptions in a table below the ToC, as seen in the Annex 4.1. Example 2, and list the assumptions with a number or a symbol.



Note: List all external initiatives contacts in the corresponding tab in the Stakeholder Register Excel Sheet.



Example 2 ToC: Source: (Maini et al., 2018)

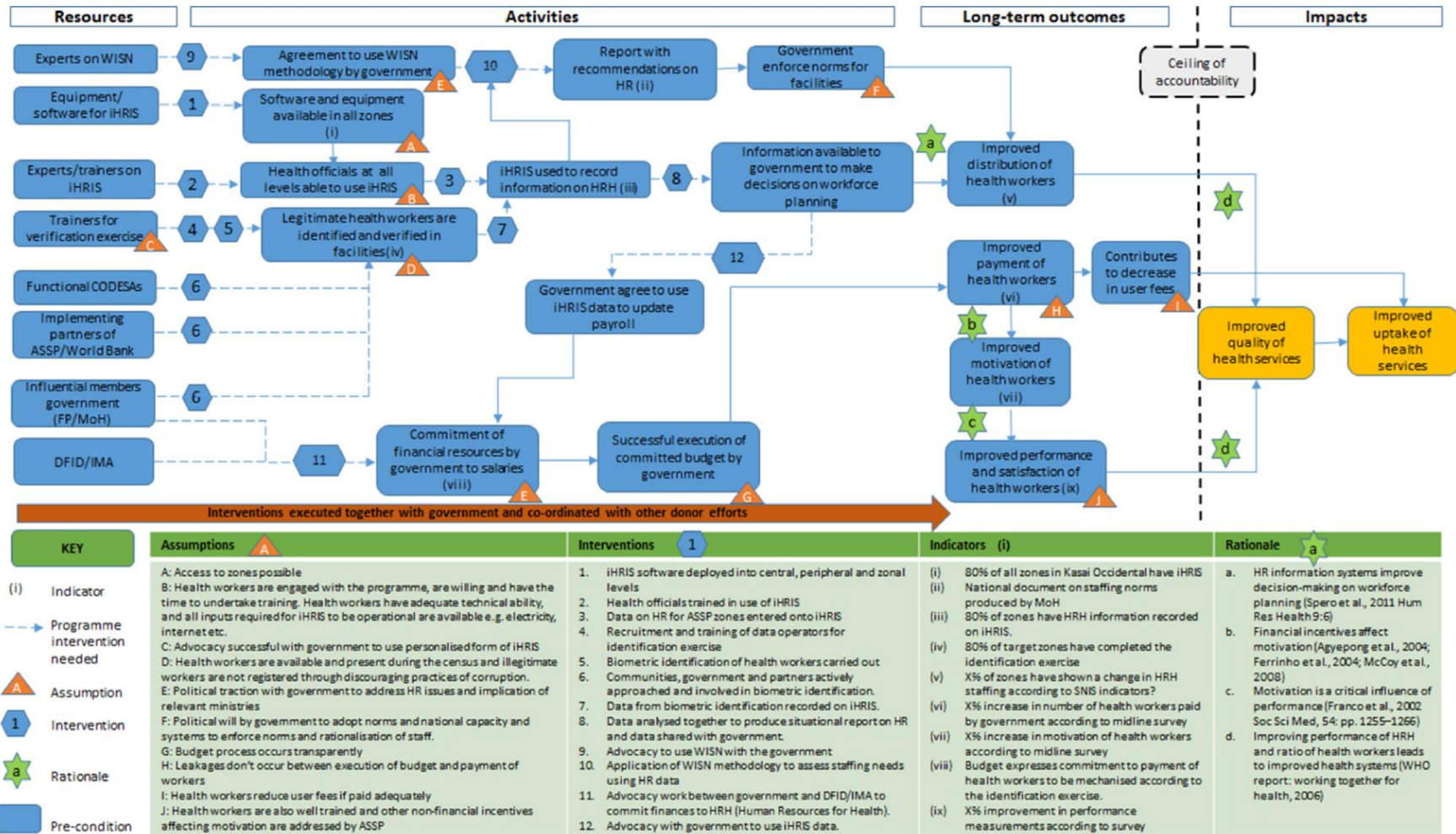


Figure 1 Initial theory of change for a complex intervention to improve the payment of government salaries to health workers in the DRC. ASSP, Accès aux Soins de Santé Primaires/Access to Primary Healthcare; CODESAs, Comité de Développement de l'aire de Santé/Community health committees; DRC, Democratic Republic of



Annex 3: Methods for Stakeholder Identification and Listing

Table 7 Methods for How to Identify Stakeholders: Focus Group and Snowball Sampling

Method	Description, Resources
Focus Groups	<p>A small group brainstorms/discusses stakeholders by first identifying stakeholder groups, organizations and individuals along the 5 Helices of the Quintuple Helix Model (See Annex 4). The Focus Group can be composed of the DS team members, but also any core stakeholders already identified.</p> <p>This can be done in person or online, with specific moderation techniques and tools to capture and map ideas of stakeholders along the 5 helices. The Focus Group should discuss the relevance of each stakeholder and come up with a preliminary list by filling out the <i>Stakeholder Register</i>.</p> <p>Note: The sample may be biased by the social networks of the focus group participants. Consider thinking outside of the network. You want to make sure you have the right stakeholders to ensure delivering the outputs, outcomes and ambition of the DS.</p> <p>Tip! You can combine in this focus group the discussion about the scope and boundaries of the DS with the discussion of the stakeholders or you can have two separate meetings.</p> <p><i>Adapted from (Reed et al., 2009)</i></p>
Snowball sampling	<p>Individuals from initial stakeholder list are interviewed, identifying new stakeholders.</p> <p>Successive respondents are identified during interviews (e.g. DS preliminarily identifies 5 stakeholders, then asks those 5 stakeholders to identify 1-2 more, and so on, until all 5 helices have sufficient representation across all groups and relevant stakeholders). The DS is responsible for compiling the ideas from the snowball sampling by filling out the <i>Stakeholder Register</i>.</p> <p>In the survey to be sent out in April 2022 to stakeholders, we will also ask the already identified SHs to suggest any others they may think of, adding a further layer to the snowball sampling.</p> <p>Note: The sample may be biased by the social networks of the first individual in the snow-ball sample. Consider thinking outside of the network.</p> <p><i>Adapted from (Reed et al., 2009)</i></p>

Annex 4: Quintuple Helix Stakeholders

Table 8 Stakeholder Examples in Quintuple Helix Model (Carayannis, Barth, & Campbell, 2012)

Natural Environment, natural environment of society <i>This is the fifth helix and needs to be considered at each level of the stakeholders</i>				
	Academia, universities, higher education	Industry, firms, economic system	State, Government, political system	Uninformed Citizens, Media and Culture <i>(Media-based and culture-based public in Carayannis, Barth and Campbell, 2012)</i>
Stakeholder Group	Public Research Institute (University, Government, etc.) Private Research Institute (Consultancy, etc.) Schools (elementary, high school, etc.) Other	Financial Sector (Banks, Insurance, Investors) SMEs Developers Health Industry Water Industry Energy Industry Utilities (Water, Energy, Waste) Tourism Industry Agriculture Industry Other Industry SME Association Developer Association Health Industry Association Water Industry Association Energy Industry Association Agriculture Industry Association Tourism Industry Association Other Industry Association Other	Local governments Local authorities / agencies Regional authorities / agencies, State/Province Government National/Federal Government Inter-ministry committees Issue specific task-forces Topic specific round-tables / committees Other	NGOs & Foundations Media & News outlets Art & Culture (history, museums, art, etc.) Citizen groups (grassroots organisations, neighbourhoods, community centres, etc.) Religious groups & societies Other
Stakeholder Functions	Research director/department head/research manager Researcher/Lab technician/PhD researcher	Entrepreneur (business owner) Director/CEO Manager/coordinator (strategic knowledge holder) Technical expert/advisor (technical knowledge holder)	Politician (elected officials) Mayor Manager/coordinator (strategic knowledge holder) Technical expert/advisor	Citizens group leader/activist Director/CEO Manager/coordinator (strategic knowledge holder) Technical expert/advisor (technical knowledge holder) Journalist/news anchor/radio host, etc.



	<p>Educator (lecturer/teacher/ professor)</p> <p>Student</p> <p>Other</p>	<p>Other</p>	<p>(technical knowledge holder)</p> <p>Other</p>	<p>Artist</p> <p>Religious group leader/member</p> <p>Consumer, End-User, Citizen, etc.</p> <p>Other</p>
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Guidance 2: SH Analysis and Survey

Steps for Stakeholder Analysis

Stakeholder analysis (SHA) (Step 2) is the next step after stakeholder (SH) identification (Step 1), and is **a process of differentiating between, categorising and investigating relationships between stakeholders** (Reed et al., 2009). This is an important step in the overall stakeholder engagement process, as it enables the understanding of who has the power to influence outcomes and impacts in each Demo-Site (DS) (Freeman, 1984). It also supports the prioritisation of these individuals and groups for their involvement in the activities and impact pathways defined in your DS Theory of Change (ToC) outlined in Step 1, and the work of other Work Packages (WPs) in the IMPETUS Project.

It is hoped that with both Steps 1 and 2 of the Stakeholder Engagement and Co-creation process that a more effective and impactful approach can be taken to involving SHs in the IMPETUS research project. The first steps were drafting the DS ToC, which enables the identification of impact pathways and understanding the systems within which the DSs are operating, and therefore being able to identify local SHs.

In the IMPETUS Project, Step 2 - SHA will be done in several sub-steps:

1. Stakeholder survey developed by WP1 to send out to as many stakeholders in your region as possible – **March – End of May 2022**;
2. Internal assessment by DSs about stakeholder power, legitimacy and urgency – **Start June 1st – Mid June 2022 and ongoing as new stakeholders are identified**; and
3. Survey and DSs assessment data compilation and analysis by WP1 and returned via SH Register Excel sheet (expanded to include the results of the analysis) and chapter of Deliverable 1.1. - **End of September 2022**.



Collecting this data from SHs will support the understanding of local climate change adaptation issues and solutions, feeding into the work of each DS, and other WPs. This data and its analysis will also help to assess and design SH engagement activities for each DS in the final step of this 3-part Guidance, as the information provided will enable categorisation of the SHs and uncover the structure of the stakeholder network, thus identifying which stakeholders are more central, which are marginal, and those that cluster together (Reed et al., 2009). This will assist in allocating roles, responsibilities, and contributions of stakeholders more effectively in DS ToCs and engagement activities. Below, Figure 1 illustrates the steps we have done so far, and those that will take place as part of the SHA.

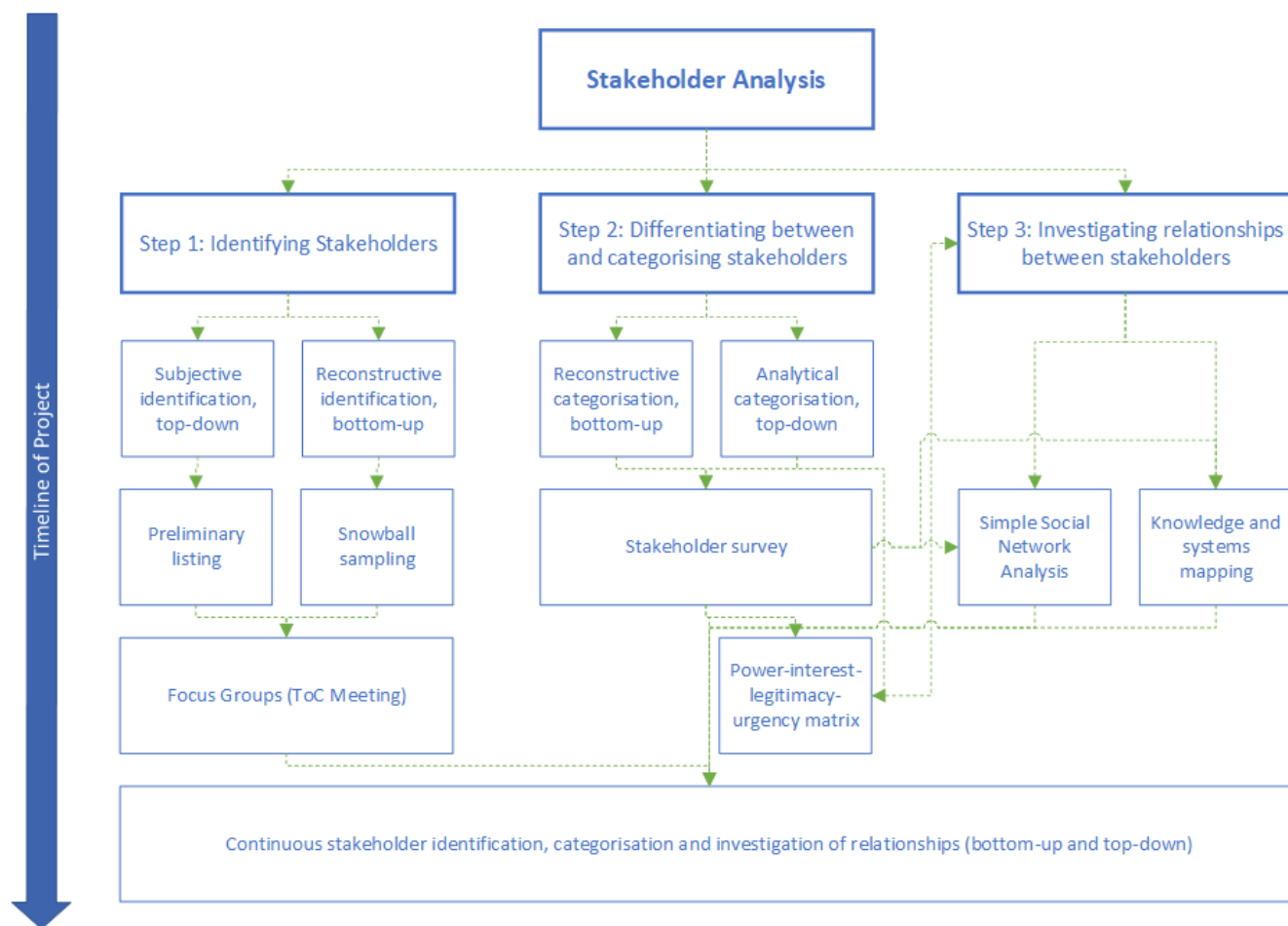


Figure 10 Stakeholder analysis steps based on Reed et al. (2009) indicating chosen methods.

This work contributes to Deliverable 1.1, which in turn will support efforts in Work Packages 2, 3, 4, 6 and 7 and their subsequent deliverables, thereby incorporating SH knowledge and input to better design climate adaptation solutions in the Resilience Knowledge Boosters (RKBs).

Below, each sub-step: (2) Stakeholder Survey, (3) Demo-Site Assessment and (4) Data compilation and analysis will be further detailed. The survey questions, communications materials and more detailed tables are included in the Annexes.

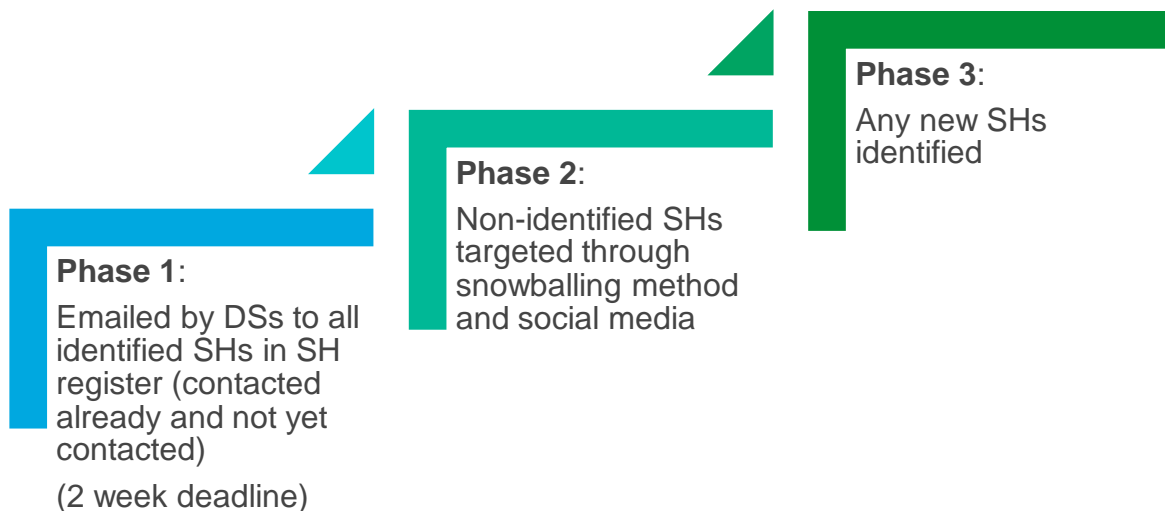
Stakeholder Survey

In the IMPETUS project, SHA will be conducted by first sending out an online survey to all potentially relevant stakeholders compiled in Step 1 and logged in the Stakeholder Register. The survey will also be available to any local stakeholder or actor who is willing to fill out the survey. This will be done by sharing the translated surveys via social media, on the IMPETUS website, via the already identified stakeholders, and in DSs networks and local channels (e.g. Facebook groups, online communities, local forums, etc.). The hope is to acquire as many responses as possible which can contribute to better understanding the local context and climate change challenges and solutions from a variety of local actors. This will also ensure a more bottom-up approach through enabling a wider representation of interests and to minimize any potential researcher bias in the selection process (Currie, Seaton, & Wesley, 2009).

The survey will be designed by WP1 with input from all other WPs, as data from this survey will help to support the other WPs in their design of climate adaptation solutions and strategies in the RKBs. The survey will also be sent around for comment and feedback from the DSs to include 1-2 locally relevant questions as needed. Then the survey will be translated by each DS into their local language, and disseminated by the key contact person in each DS.



The survey will be distributed in three overlapping and on-going phases, as per the infographic below. As SHs respond to the survey with additional potential contacts in the DS regions, WP1 will update the SHs register and notify each DS after the first and second phases are completed, and let the DSs know after the initial 2 week deadline about any new SHs to contact. Then those new SHs will be sent the survey with a deadline of 2 weeks. The survey will be closed for all on May 30th so that WP1 can compile and analyse the data. As of June 1st, DSs will start working on the next step, outlined in Section 1.2 below.



Practicalities

1. **Organise SH Register List** with all stakeholders (make sure you distinguish those who said yes to getting involved (contacted) in the DS from your initial outreach and those you have not contacted yet and need to do so – there are tailored emails in the Annexes for these two groups).
2. Identify who the **main contact person** will be in the DS; this is the person that will be the DS' contact point for SHs, ideally throughout the duration of the project and will be listed on the survey.
3. **Distribute the survey** in the online format only. This will facilitate easier data collection and analysis. If there are any issues with distributing the survey in an online format, WP1 will deal with this on a case by case basis with the DSs to find the best solution.
4. Send out the survey to SHs listed in the SH Register via email, and ask them to forward to any relevant groups, and distribute in your local networks, online communities and more with a **deadline of 2 weeks**; send out a reminder after one week and another one after the second week (Phase 1 -2).
5. WP1 will compile the data centrally via the online survey platform and may request support from the DSs to translate and/or interpret data.
6. If the survey is not done online, DSs will need to support WP1 in compiling the data and transferring it to an excel sheet, with translation to English.

Building on the SH Identification, where some categorisation already took place through the Quintuple Helix Stakeholder groups and functions, this survey will continue to add further understanding and



awareness of stakeholders and how they can be categorised for their eventual engagement along the ToC developed for each DS.

There are several key objectives for this SH survey in the IMPETUS project, and each of these objectives will have its own section with corresponding survey questions:

- 1) **Consent and Basic demographics:** Data protection, age, gender, location, title, etc.
- 2) **Knowledge and Perceptions on Climate Adaptation:** To better understand who the local experts are, how they are connected, which types of knowledge they possess that can be useful at different stages of the project, etc. Understanding SH perspectives, perceptions on resilience, climate adaptation problems and solutions in their regions (i.e. each DS). Here DSs may want to add one question that relates to a specific problem/situation in their region that they think it relevant to ask.
- 3) **Contributions and expectations:** Gather an understanding of each SH's potential contribution, expectations, interest and availability to engage in project activities throughout the duration of the project.
- 4) **Additional SHs to include in DS:** Supporting each DS to identify additional important stakeholders (snowball method).

Through the survey, stakeholders will have the opportunity to share their thoughts, ideas and potential contributions in a bottom-up manner. Some of the questions in the survey will be corroborated in the next step of the SHA, which is the internal DS assessment of SHs power, urgency and legitimacy, which will be explained in further detail in the next section.

The survey outline and questions can be found in Annex 1 in English.

Demo-Site Internal Assessment

In addition to the SH survey, **a second level of analysis will be performed by the DS leaders** to assess the SHs based on their perceived power, legitimacy and urgency, based on Mitchell et al's (1997) seminal work on SH identification and salience. This additional layer of understanding will help to corroborate the data from the survey, as well as to have a more nuanced overview of the SHs and how they will be engaged through communications and DS activities. WP7 on Communications will support WP1 and the DSs in tailoring communications based on the findings from the stakeholder survey and this internal assessment.

Practicalities

1. WP1 will send you an updated SH Register with several additional columns for this assessment.
2. Conduct an initial assessment of power, legitimacy and urgency in the columns in the SH Register base on your knowledge of the SHs.
3. It will be important for the DS leaders to be objective in their assessment and to go with first instinct.
4. Conduct this assessment within 2 weeks of initial assignment from WP1 – June 1st – June 15th.
5. Return completed SH Register to WP1 via SharePoint or email.
6. WP1 will continue the analysis based on each DSs input and share with DSs and WP7 after compilation of survey data from previous sub-step.

Based on Mitchell et al's (1997) work, power, legitimacy and urgency are defined as:



Attribute Definition	Example
Power: “A relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done.” Can be negative or positive.	<ul style="list-style-type: none"> a) Local municipality passes policy mandating farmers to reduce water consumption b) Natural resources industries control certain resource use c) Project lead calls on partners to deliver specific deliverable
Legitimacy: The principle of “who or what really counts” – based on either a legal basis or on socially constructed recognition that the stakeholder(s) are relevant, depending on the local context or situation.	<ul style="list-style-type: none"> a) A local group of citizens who have banded together around a specific issue that affects their health and are recognized by the local community as important to voice concerns of a specific demographic on that issue b) Local authorities or government have legitimate decision-making power by law c) A legal contract or document binding two stakeholders together, or a stakeholder to a specific situation, i.e. Memorandum of Understanding, a lease, etc.
Urgency: “The degree to which stakeholder claims call for immediate attention.” Time sensitive issue or perceived importance of an issue.	<ul style="list-style-type: none"> a) Potential or existing conflict over natural resources and the stakeholders involved b) New development to be built in the coming year which needs local support c) A group of protesters preventing certain activities

When the data from the survey is compiled by WP1 at the end of May 2022, DS Leaders will then provide their own preliminary assessment of the SHs identified and those additional SHs who filled out the survey. **WP1 will notify the DSs when to start this task** (June 1st – June 15th). DSs will assess each SH based on their perception of the SH’s power, legitimacy and urgency. This should be done by marking an “x” and adding a phrase about why this SH possesses this attribute in the “Explanation” columns added into the SH Register Excel Sheet by WP1 (See Annex 6). For example, if you mark that a stakeholder has power, in the explanation you specify why you think this stakeholder has power, see the examples in the Table above.

If you don’t know the individual SH, make the assessment based on the organisation. If the SH and the organisation are unknown to the DS, leave the columns blank and mark “unknown” in the column next to the assessment columns. We recommend to do this assessment as a group collectively, or to ensure that all DS Leaders provide their assessment and deliberate on the assessments.

Once all SHs have been assessed, WP1 will then be able to categorise the SHs based on the below matrix (Fig. 2) and to understand whether the stakeholders are **latent** (possess only 1 attribute – 1, 2, 3) , **expectant** (possess 2 attributes - 4, 5, 6) **or definitive** (possess all 3 attributes - 7) (Mitchell et al., 1997) – See Table 1 and Figure 2 below.

This will help to identify the stakeholders who need more or less attention and to develop targeted communication and engagement strategies in the SHs engagement plan, which will also help to reduce stakeholder fatigue. It is important to note, however, that **SH attributes can and will change over the course of the project**. For example, one powerful stakeholder such as a local politician could be voted out of office in the next 2-3 years, but could still hold legitimacy in terms of their perceived importance by local citizens. Another example could be that a *Discretionary* or *Dormant* SH obtain another attribute such as power or urgency and could therefore need to be engaged or communicate with more often. Therefore, it will be important to continue to monitor SHs and their attributes throughout the duration of the project and to adjust engagement and communications strategies as needed.



Table 9 Stakeholder attributes and types based on assessment (based on Mitchell et al. 1997) P=power; L=legitimacy; U=urgency

	Attribute	Stakeholder Type	Communication Type	Engagement Type
Latent: SH possesses 1 attribute	P	1 – Dormant: Possess power to impose their will, but without legitimacy or urgency, their power remains unused. Ex: A potential investor.	Keep informed. Not urgent.	Ex: Invite to meetings if needed, keep them informed via communications. <i>TBD in Step 3 with DSs</i>
	L	2 – Discretionary: Possess legitimacy, but no power or urgency. Ex: non-profit who receives donation.	Keep informed. Not urgent.	<i>TBD in Step 3 with DSs</i>
	U	3 – Demanding: Possess urgency but no power or legitimacy. Ex: individual protester.	Keep informed. Be aware of potential conflicts.	<i>TBD in Step 3 with DSs</i>
Expectant: SH possesses 2 attributes	PL	4 – Dominant: Influence is assured, have a certain authority, ability to act on legitimate claims. Might have a formal mechanism acknowledging the importance of their relationship with the DS. Ex: Relationships with funders, authorities, etc.	Produce reports, statements, keep updated regularly, social media, etc..	Ex: Invite to meetings and workshops, ensure their perspectives are heard and acted upon. <i>TBD in Step 3 with DSs</i>
	PU	5 – Detrimental: May seek to advance their claims, even though they are not legitimate. High risk. Ex: Strikes, sabotage.	Communicate regularly and understand issues. Discussions.	Ex: Understand risks, preparedness plans, mitigation measures, seek mediation. <i>TBD in Step 3 with DSs</i>
	UL	6 – Dependent: Lack power, but have urgent and legitimate claims. They depend upon others for the power necessary to carry out an action. Ex: local residents, natural environment.	Communicate regularly, share reports and email updates.	Ex: Invite to meetings, workshops. <i>TBD in Step 3 with DSs</i>
Definitive: SH possesses all 3 attributes	PUL	7 – Definitive: Possess all 3 attributes. Give priority and focus. <i>Awareness of possibility of other types of SHs to move into this category, e.g. Expectant SHs.</i>	Important to keep informed of all that goes on, email, newsletters, social media and preferred pathways.	<i>Ex: Pay attention to claims, invite to all meetings and workshops, ensure their claims are heard.</i> <i>TBD in Step 3 with DSs</i>

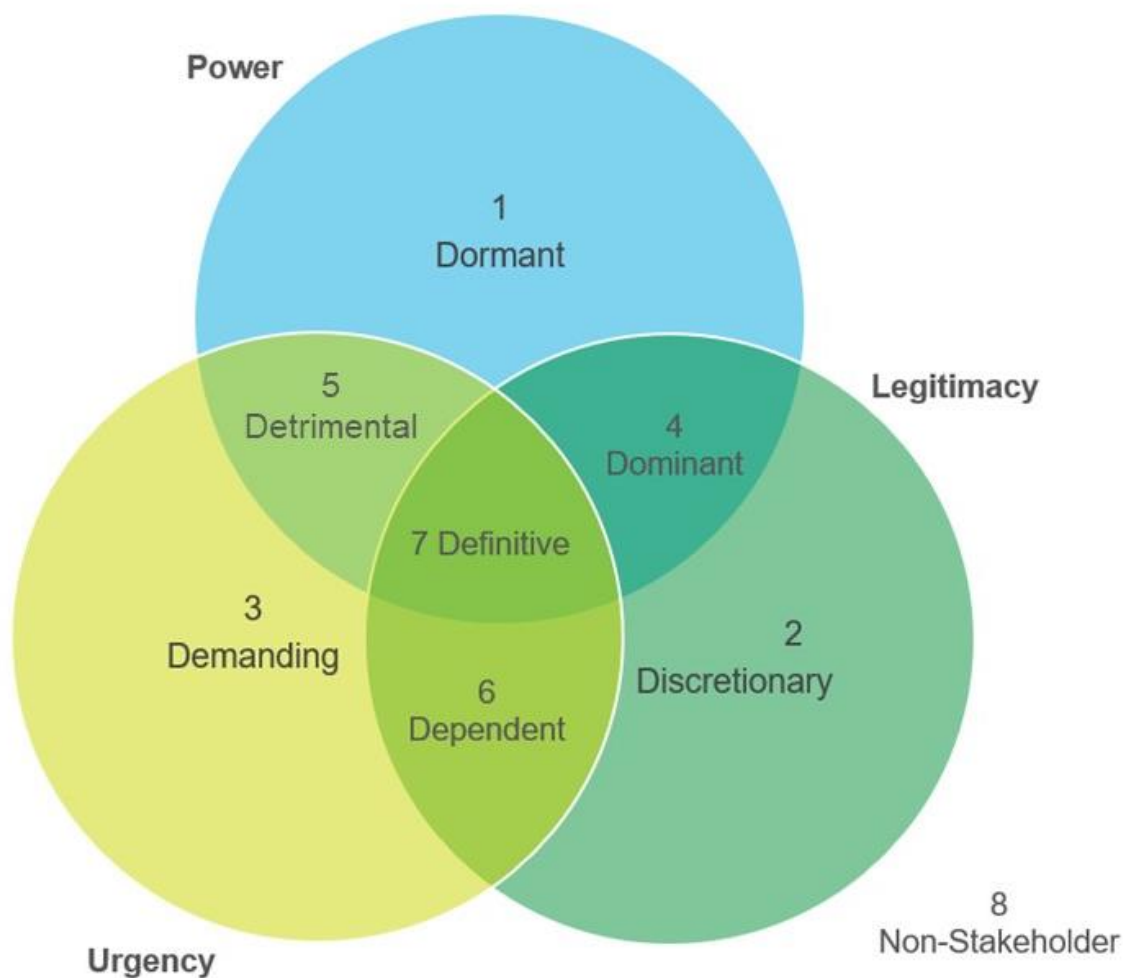


Figure 11 Stakeholder categorisation based on Mitchell et al. (1997)

Data Compilation and Analysis

Once the stakeholder survey has been distributed and responses collected, WP1 will analyse the data and compile into useful visualisations (networks, patterns, etc.) and assessment for the DSs after the survey deadline has passed. The analysis of the survey data will take some time, so while WP1 is conducting the analysis and to avoid any bias, the SH Register will be sent back to DSs with the addition of relevant columns to perform the power-legitimacy-urgency assessment based on their knowledge of each SH (see example in Annex 6).

Based on the internal assessment of DSs and survey data, WP1 will attribute each stakeholder to the appropriate category. WP1 will add to the SH Register a new column with the categorisation and visually synthesise the SHs categorisation results in a similar method as Fig. 2 with the numbers of SHs in each category.

Combined, these results and analyses will serve as the basis for designing the Stakeholder Engagement and Co-Creation Plans in the next step (Guidance 3 will be shared with DSs in due time). Communication and collaboration methods will be defined and will be combined with the information from the ToCs. Communication methods will be co-produced with input from WP7 on how best to communicate with the specific types of stakeholders categorised.



Guidance 2 Annexes

Annex 1: Survey to Stakeholders

Survey Overview / Introduction Page

Help your local and regional community to adapt to the impacts of climate change!

Help your local and regional community to adapt to the impacts of climate change!

IMPETUS wants to hear from all local parties interested in climate change in your region, to help shape climate adaptation solutions for long-lasting benefits. You are kindly invited to learn more about these solutions in your region and to help the IMPETUS team by taking part in this survey.

IMPETUS is turning climate commitments into action by working with local citizens, policy-makers and businesses in 7 sites around Europe towards a climate-neutral and sustainable future.

In the [REGION NAME e.g. metropolitan Berlin-Brandenburg] region, the project's [DEMO SITE NAME e.g. 'Continental' – link to webpage] case study team is testing relevant solutions to increase the ability of your region to adapt to the local impacts of climate change.

Why take part?

This survey is an opportunity for you to raise issues that you consider important and to share your ideas or expertise to influence the outcome of the IMPETUS climate adaptation and mitigation solutions. Your input will contribute to innovative climate change action in your region and beyond. Use the survey to let us know if you would like to be part of this active community!

How long does it take?

It will take you approximately 15 minutes to complete the survey.

What happens with your data?

Personal data will be collected and stored in SurveyMonkey using an account belonging to IMPETUS partner KWR Water Research Institute, which is based in the Netherlands. [Please see the KWR privacy policy \(in Dutch\)](#).

The survey data will be made available to other IMPETUS partner organisations only for project purposes, and personal information will not be shared beyond the scope of the project. The platform for sharing this data is SharePoint, managed by project partner Eurecat, based in Catalonia, Spain. [Please see the Eurecat privacy policy \(in Spanish\)](#).

The IMPETUS team may analyse, publish and distribute the survey results in an aggregated way royalty-free, in all forms and in all media.

All data collected will be deleted at the completion of the project (October 2025).

Contact Information

For any further information or questions, you can contact your main contact point in the Case Study:

Name:

Email:

The coordinators of this work in the IMPETUS project are Lisa Andrews and Stefania Munaretto from the KWR Water Research Institute and can be contacted at any time at lisa.andrews [at] kwrwater.nl.

Thank you for your time and input!

Next Page in Survey

Data privacy and consent:

1. As Data Controllers of these platforms, KWR and Eurecat will manage all survey data in accordance with the EU's General Data Protection Regulation (GDPR).



[tick box] By participating in this survey, which is organised by KWR within the IMPETUS project, you are agreeing to the KWR and the Eurecat privacy policies and giving your consent for us to keep and use your data during the lifetime of the project.

[tick box] By participating in this survey, I am agreeing that I have read the KWR and Eurecat privacy policies and that I give consent for them to keep and use my data. *

All survey participants should read the privacy notices (link again).

Next Page

Knowledge and Perceptions on Climate Adaptation in your Region

In this section, we will ask you questions about your perceptions, experiences and knowledge of climate-change topics, problems and solutions in your region, and other elements.

List of Definitions:

- **Stakeholder:** means a person, institution, or organisation who is affected by or can affect the [name of the Case Study]
- **Resilience:** is the ability of a socio-ecological (human and natural) system to absorb and withstand stressors (shocks, disasters) such that the system maintains its same basic structure and function. In other words, it is the ability of a system to bounce back to a new normal after a change.
- **Climate-change adaptation:** is the process of adjustment to actual or expected climate change and its effects. In human systems, adaptation seeks to moderate harm or exploit beneficial opportunities.
- **Climate-change mitigation:** Climate change mitigation consists of actions to limit global warming and its related effects. This involves reductions in human emissions of greenhouse gases as well as activities that reduce their concentration in the atmosphere. It is one of the ways to respond to climate change, along with adaptation.
- **Climate-change solutions:** are a range of strategies, technologies, or policies that help to overcome the impacts (problems) from climate change.

2. How important is climate-change adaptation and mitigation

- To you personally (1-5 scale)
- To your work (1-5 scale)

3. Rate your knowledge for each of the topics below.

Topic	No Knowledge	Slight Knowledge	Somewhat Knowledgeable	Moderate Knowledge	High Knowledge
Climate-change related policy, governance or finance					
Climate-change adaptation planning					
Digital tools and solutions (artificial intelligence, augmented reality, digital twins, models, sensing, etc.)					
Climate-change vulnerability & risk analysis (social, natural, economic, infrastructure, etc.)					



Climate-change related warning systems					
Communicating key messages, engaging with communities of interest					
Other: specify					

4. In your opinion, what are the main climate-change related problems in your region? *List 3-5 in order of importance, with the first being the most important and the last of lesser importance. Examples of problems could be flooding, insufficient drinking water, loss of nature and ecosystems, etc. Option for I am not sure.*

If you do not know, indicate "I don't know" in the text box.

- Most important:
- Important:
- Least important:

5. What are the main solutions to these problems, in your opinion? *List the solutions in the same order as the problems expressed in the previous question. Examples could include , changes in people's behaviour, economic incentives or restrictions, etc. or a mix. Option for I am not sure.*

If you do not know, indicate "I don't know" in the text box.

- Solution to most important climate change issue:
- Solution to important climate change issue:
- Solution to least important climate change issue:

6. Do you know of any climate-change adaptation initiatives already in your region? Yes, they exist / No, there are none / *I don't know – if I don't know*

7. If you answered yes to the question above, please elaborate which initiatives already exist in your region. Examples: regional strategies, international or local initiatives, such as community led initiatives, 100 Resilient Cities, local policies, etc. *Open question.*

8. Can you recommend any other organisations or groups besides your own that IMPETUS should ask to be involved as stakeholders in this [Case Study]? Please list the names of any organisations, companies or institutions below. *Open question.*

New Page
Collaboration in Region (1)

9. Do you collaborate with organisations personally or professionally on climate-change adaptation and mitigation issues in your region?
- Yes
 - No

If yes, they get next set of questions on collaboration. If no, they skip this questions and go to Expecations section.

New Page
Collaboration in Region (2)



10. With which organisations do you collaborate most (on average) in your region on climate-change adaptation and mitigation solutions? Indicate the top 3 organisations by their name.
- Organisation 1 Name:
 - Organisation 2 Name:
 - Organisation 3 Name:
11. For the 3 organisations you named in your previous answer, indicate the average frequency of interaction: At least once a week, At least once a month, Once every 4-6 months, Once a year
- Organisation 1 frequency:
 - Organisation 2 frequency:
 - Organisation 3 frequency:
12. For the 3 organisations you named in your previous answer, indicate how you collaborate with them. Use one or more than one of these key words for each of the organisations listed above:
- Exchange of information (knowledge sharing and exchange)
 - co-creation (innovating and ideating together)
 - knowledge production (writing papers, collectively producing new knowledge together into a output)
 - decision-making processes (working together to make a decision and implement it).
- Organisation 1 collaboration method:
 - Organisation 2 collaboration method:
 - Organisation 3 collaboration method:

New Page Expectations of IMPETUS

In this section, we will ask you about your expectations of the project in your region and potential risks.

13. What do you expect the [case study] project team to co-create and implement with stakeholders in your region? Tick all that apply.
- Pilot test and demo solutions
 - Develop a shared vision of climate-change adaptation in the region
 - Develop a shared plan for how to achieve the climate-change adaptation vision
 - Recommendations to policy-makers
 - Recommendations to stakeholders / beneficiaries
 - A new local community or network of stakeholders working together on climate adaptation
 - Other: Specify
14. To what extent do the following elements pose a risk for the project activities in your region in your opinion?
- Lack of commitment of decision-makers
 - Lack of or complicated legal framework
 - Limited access to existing data
 - Limited engagement of stakeholders
 - Too ambitious, time constraints
 - Conflict among stakeholders
 - Other: Specify

New Page Involvement

Based on your answers to the questions below, we will either ask you for your contact details so that you can get involved in the project, or we will skip those questions and just ask for basic demographic questions while you remain anonymous for our analysis.

15. Has a [Case Study] representative in your region already contacted you to get involved?
- Yes
 - No



16. Are you interested to actively collaborate and participate in this [CS] on climate change adaptation and mitigation solutions and to share your contact information so we can contact you to do so?
- Yes, I would like to be actively involved and informed
 - No participation or contact
 - Do not want to participate, but interested in receiving regular updates via email

 - If they answer no: Skip contribution questions, skip email, name, and other contact details.*
 - If “do not want to participate, but interested in receiving regular updates via email”: Skip contribution, but collect email, skip other details.*
 - If they answer yes: All questions below*

New Page

Contributions (*only answer if indicated yes to Q16*)

17. How can you contribute to the IMPETUS [case study name] regional case study? Tick all options that apply.
- Data** (from research, surveys, institutions, agencies, etc.)
 - Research** (e.g. desk research in journals, newspapers, reports etc., or interlinking research projects etc.)
 - Knowledge** (share your own knowledge, propose other ideas or others' knowledge to draw upon)
 - Network** (access to your network of contacts or a specific set of stakeholders)
 - Organizing / meeting support** (you can provide venues, logistical or other assistance for local meetings, online meetings, etc.)
 - Outreach and communications** (you can support the sharing of ideas, results and other project information using your online or offline networks or tools, through media contacts, or using your skills to create, translate or disseminate news, social media posts, blogs, etc.)
 - Other:** specify
18. **Which types of case study activities** would you be interested to participate in? – tick all options that apply.
- Events to demonstrate solutions
 - Workshops to co-create solutions or knowledge with other stakeholders (online or in-person)
 - General information-sharing meetings
 - Meetings with public authorities
 - Webinars or virtual tours
 - Livestreams online e.g. via social media
 - Interviews
 - Surveys
 - Learning opportunities such as online training courses
 - Other, (specify):

New Page

Contact Info and Demographics

Below we will ask you a few questions about demographics.

19. Name (first and last name)
20. Email address:
21. Age range: Under 18, 18-24, 25-34, 35-44, 45-54, 55-64, 65+
22. Gender*: Female, Male, Non-Binary, Prefer Not to Say
- *We aim for diversity and balance in the project and those who get involved in each of the demonstration case studies.
23. Where are you based? *City, province/state, country*
24. Which sector do you work in? – *Select the one that is most appropriate from the options below:*
- Public Research Institute (University, Government research agency, etc.)



- Private Research Institute (Consultancy, etc.)
- Schools (elementary, high school, etc.)
- Financial Sector (Banks, Insurance, Investors)
- Small and Medium Enterprises (SMEs)
- Developers
- Health Industry
- Water Industry
- Energy Industry
- Utilities (Water, Energy, Waste)
- Tourism Industry
- Agriculture Industry
- Fishing and Aquaculture Industry
- Other Industry
- SME Association
- Developer Association
- Health Industry Association
- Water Industry Association
- Energy Industry Association
- Agriculture Industry Association
- Fishing and Aquaculture Association
- Tourism Industry Association
- Other Industry Association
- Local governments
- Local authorities / agencies
- State/Province/Region Government
- State/Province/Region authorities / agencies
- National/Federal Government
- National/Federal authorities / agencies
- Inter-ministry committees
- Topic specific task-forces/round-tables/committees
- NGOs & Foundations
- Media & News outlets
- Art & Culture (history, museums, art, etc.)
- Other: specify

25. What is the name of your current employer?

26. What is your current role in your organisation? Select the one(s) that are most appropriate from options below:

- Research director / department head / research manager
- Researcher / Lab technician / PhD researcher
- Educator (lecturer / teacher / professor)
- Student
- Entrepreneur (business owner)
- Director / CEO
- Manager / coordinator (strategic knowledge holder)
- Technical expert / advisor (technical knowledge holder)
- Politician (elected officials)
- Mayor
- Citizens group leader / activist
- Journalist / news anchor / radio host etc.
- Marketing / communications / public relations specialist
- Artist
- Farmer
- Other: Specify

27. How many years of experience do you have in your field of expertise? *Scale 1-5, 5-10, 10-15, etc.*

Many thanks for taking part in this IMPETUS project survey! Please find out more about the project and stay up-to-date with our stories via the climate-impetus.eu website, or via social media:



- *LinkedIn: Climate Impetus* - <https://www.linkedin.com/company/climate-impetus>
- *Twitter: @ClimateImpetus* - <https://twitter.com/ClimateImpetus>

Annex 2: Email Templates for Survey

The below emails will be translated by each DS into their local language and adapted as needed.

Annex 3: Email template to all identified stakeholders who replied “Yes” to being involved in the DS

Dear [Stakeholder],

Thank you for your interest in collaborating with us in the [Demo-Site] in the EU-funded IMPETUS project. As announced in our previous interaction, we invite you to fill in our survey, which should only take around 15 minutes of your time. This survey will gather knowledge, perspectives, perceptions and ideas relating to climate change issues and solutions in our region. We would also like to find out whether you may like to participate in the varied programme of activities that we are planning, in which you are welcome to get involved.

By providing your inputs to our survey, you will help us to get these activities started and contribute to innovative climate change action and solution development!

Here is the link to the survey | **Survey Deadline: midnight 6 April 2022**

Please visit the project web-page about our [Demo-Site *link to page*], which will be updated as our activities progress.

For any further information or questions, please contact:

- **[Demo-Site]**
Name, **contact:**
Email Affiliation
- **IMPETUS** **survey** **coordinator:**
Lisa Andrews, KWR Water Research Institute
lisa.andrews@kwrwater.nl

Thank you for your time and input!

Annex 4: Email template to stakeholders in Register who have not been contacted by DSs

Dear [Stakeholder],

It is with great pleasure that I offer you the opportunity to contribute to the creation of solutions to help our region adapt to the impacts of climate change. My organisation is involved in establishing a [Demo-Site] regional test site as part of the flagship EU-funded project, IMPETUS, which will test solutions and launch a varied programme of activities in which members of the public, researchers, environmental groups, industry, media and other interested parties can get involved. We have identified you as a regionally important actor whose input we would value and we would be delighted if you would join us in our ambitions to drive positive change in our region. To get our activities started, we are inviting you and other local people to share regional knowledge, expertise, concerns and ideas in a fact-finding survey.

Filling in our survey should take only around 15 minutes of your time. This survey will gather perspectives, perceptions and ideas relating to climate change issues and solutions in our region. We would also like to find out whether you may like to participate in our activities in the coming years. By providing your inputs to our survey, you will contribute to innovative climate change action and solution development!

Here is the link to the survey | **Survey Deadline: midnight 6 April 2022**



With a 14.8 million euro budget, IMPETUS is a 4-year programme to accelerate Europe's response to climate change. Please visit the project web-page about our [Demo-Site *link to page*], which will be updated as our activities progress.

For any further information or questions, please contact:

- **[Demo-Site]** Name, Email **contact:** Affiliation
- **IMPETUS** Lisa Andrews, KWR Water Research Institute **survey coordinator:** Institute
lisa.andrews@kwrwater.nl

Please feel free to share this message with any other contacts who you think may find it interesting.

Thank you for your time and input!
DS

Partner(s)

Annex 5: Post for Social Media Groups, Twitter, LinkedIn

Translate the below and use as relevant for promoting the survey on social media to attract responses from SHs in your DS region. Deadline for social media campaign: April 30th.

Twitter:

How can you help your region & community adapt to #ClimateChange? Get involved with our local @ClimateImpetus activities, starting with our survey of your knowledge, concerns & ideas for solutions: [SHORTLINK/xxxx](#) #ClimateAction @cinea eu @Partner1 @Partner2 @Partner3 @Partner4

(up to 10 accounts can also be tagged in the graphic, which will be provided by WP7)

LinkedIn:

How can you get involved in climate adaptation and mitigation activities to help your community and **your region**? Through the European @Climate Impetus project! We want to hear from all parties in the **region name** region who are interested or concerned about the local impacts of climate change, to help us shape solutions for long-lasting benefits. As a partner in the project's new **region name** demonstration site, we will launch a varied programme of activities in which members of the public, researchers, environmental groups, industry, media and other interested parties can get involved and drive positive change in our region. To get our activities started, we invite you to share your knowledge, concerns and ideas about climate change challenges and solutions in our online survey (deadline 7 May): [URL @CINEA](#)

LinkedIn penalises posts that contains more than just a few @ tags and # hashtags, so please be very selective!



Guidance 3: SHE, Co-Creation and Communications

Overview: Steps for Stakeholder Engagement, Co-Creation and Communications

Stakeholder engagement (SHE) (Step 3) is the next step after stakeholder identification (SHI) (Step 1), and stakeholder analysis (SHA) (Step 2). In this guidance document, we will build on the first two steps and give an overview of SHE, co-creation and communication methods to effectively engage all the different types of stakeholders (SHs) identified in the SH register and categorized through the analyses and assessments. We will not give a detailed overview of multiple types of engagement and communication methods but provide useful resources / references for each demo site (DS) team to choose from as a starting point. In combination with data from the SH survey and the DS internal assessments, WP1 and WP7 will then work together with each DS individually to decide which engagement and communications are best suited to their local situation.

We will do this by bringing together all of the elements we have been working on since the beginning of the project, including:

- The DS Theories of Change (ToC)
- The SH registers
- Survey data analysis
- DS internal assessment of SH power, urgency and legitimacy

Now that we have more information about the stakeholders, their expectations and ideas from the survey, we can fine-tune the ToCs and add in engagement and communication activities that will enable the impact pathways of the ToCs, thus delivering on the various DS goals and desired impacts. The assumptions in the ToCs will be verified as well and updated as needed, given the results of the analyses and realities among the identified SHs.

Why is stakeholder engagement, co-creation and communication important?

Stakeholder engagement and co-creation is vital to the success of DS activities. It is a way to gather local input, co-create knowledge and to innovate with the local stakeholders to ensure societally relevant impact (Brandsen, Steen, & Verschuere, 2018; Kazadi, Lievens, & Mahr, 2016; Steen & Tuurnas, 2018). Stakeholder engagement and co-creation is also vital as it enables learning from and listening to a variety of different inputs, adapting to local realities as the project progresses, and ensuring the most locally relevant and meaningful impact possible (De Jong, Barker, Cox, Sveinsdottir, & Van den Besselaar, 2014; Muhonen, Benneworth, & Olmos-Peñuela, 2020; Spaapen & Van Drooge, 2011). Effective stakeholder engagement and co-creation also supports building relationships through trust, transparency and good communications, which also facilitate successful knowledge co-creation and innovation (Cash et al., 2003).

What is the difference: stakeholder engagement, co-creation and communication?

- **Engagement:** Stakeholder engagement is the all-encompassing term for how stakeholders in IMPETUS are involved throughout the duration of the project, from the identification and analysis phases, to the engagement and communication phases (Reed et al., 2009). This includes co-creation, communications, workshops, emails, listening and learning, etc.
- **Co-creation:** Co-creation is a more specific term that is used in literature to describe the collaborative (co-) creation of new knowledge about a specific topic, whereby all stakeholders are heard and can effectively and in consensus come up with new ideas and innovations to be applied (Brandsen et al., 2018; Steen & Tuurnas, 2018).
- **Communication:** Communication encompasses everything from locally focused presentations, emails, social media, meeting invitations, learning materials and online content, to how we present the bigger-picture project key messages and progress. Communication with DS stakeholders will largely fall into the more localised end of this scale, the bigger-picture messages also reinforce the need for and value of their contributions.



WP1 will share this guidance and then, in collaboration with WP7, host a series of meetings with all DSs to define tailor-made engagement and communication approaches that fit the local needs and realities, the ambitions of the DSs, activities in the ToCs, based on the analyses and assessments of the SHs. This close collaboration with WP7 is essential, as engagement and communications are closely interlinked. Given that WP7 activities go beyond this stakeholder engagement support, partners should see their integrated engagement and communications activities as part of their WP7 commitment, with details of any complementary / broader activities to be confirmed with WP7.

This guidance document will be broken down into the following sections and should be used as a 'checklist' for DSs in preparing, planning and delivering engagement and communications activities:

- **Review: how we got here** and where we are going
- **Engagement, co-creation and communications planning and roadmaps:** Template for planning SHE for the duration of the project
- **Engagement:** How we will define engagement methods & an overview of resources
- **Communication:** How we will define communication methods & an overview of resources
- **Meeting checklists** for successful preparation of meetings or workshops
- **Monitoring and Evaluation** processes and templates
- **Key principles for success** in engagement and communications

This guidance will include the overall explanation of the steps WP1 and WP7 will take with the DSs in designing and implementing the integrated engagement and communications plans. This includes guidance on how to organize engagement activities, [assign roles and responsibilities](#), and [check-lists for successful activities](#). It also includes an [Annex about the ConCensus approach to engagement](#), an approach specifically designed for citizen engagement.

Monitoring and evaluation (M&E) is an important part of stakeholder engagement, communications and the co-creation process. M&E will be touched upon in this guidance with reference to two important documents – the stakeholder feedback forms and meeting reports as described in Section 4 below and in the Annexes 2 and 3 - and more explicitly defined in a 4th guidance document specifically covering M&E.

Review: how we got here and where we're going

Engagement, co-creation and communication methods need to be carefully considered based on the needs of the DS, the activities outlined in their ToC, and most importantly, based on their SH analysis and assessment.

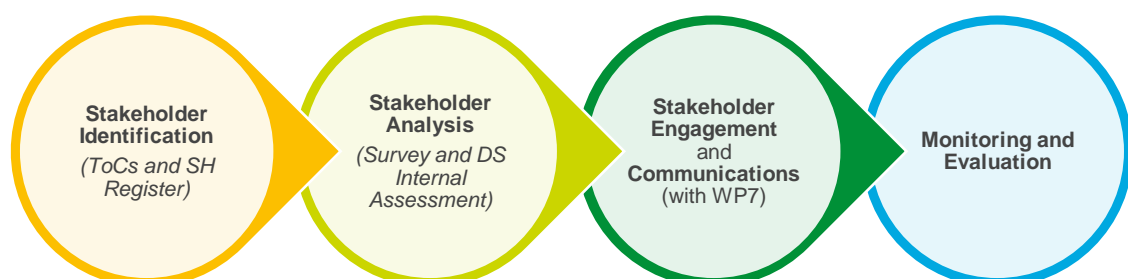


Figure 13 Steps of Stakeholder Engagement in WP1

Based on the overall objectives of the project and each DS, the desired impacts, the objectives of SHE as stated by each DS at the beginning of the project and their ToC, plus the local needs as expressed by the survey respondents and known by the project partners, and taking into account the DSs' assessment of the SH Register with the above attributes, we can start planning which types of engagement and communication are needed. WP1 and WP7 combined will host one-on-one meetings with each of the DSs to bring all of these elements together to tailor an integrated engagement and communication approach that is locally relevant for each DS and based on all the data collected from the surveys and the SH analysis.

Important Note: Before the one-on-one meetings, DSs should review their ToCs, SH registers, the survey analysis sent to them by WP1, and the resources below on engagement and communications, and prepare ideas and/or questions to discuss with WP1 and WP7.

Stakeholder Analysis – DS Internal Assessment – In Practice

The most recent step that DSs have concluded in the SHA process is the DS internal assessment of the SHs in the SH registers. This was a means for the DSs to reflect upon the SHs and their perceived power, urgency or legitimacy (Mitchell et al., 1997) and to categorise them accordingly with regards to the DS activities and ambitions; in other words, evaluating the preliminary saliency and dynamism of the SHs. After the DSs completed the assessment, WP1 then added the SH types into the register, based on which attributes each SH is perceived to possess.

Table 1 below revisits the potential SH types from Guidance Document 2, and includes examples of methods of engagement, co-creation and communication based on each category. Note that these are examples, and DS interpretation may vary for the SH types and how to engage and communicate with each SH based on the local context and relationship. Once defined by and tailored for each DS, the engagement, co-creation and related communication activities will be planned in an engagement activity roadmap (see Section 3) and in the ToCs, as needed. It is important to remember that the SHs' attributes (power, urgency and legitimacy) can change over time, and thus the SH register and related engagement, co-creation and communication planning will need to be updated regularly to reflect any changes. **WP1 will remind DSs to review and update the SH register and engagement, co-creation and related communication planning on a regular basis, every 4-6 months. Coordination of specific tasks, including sharing relevant files and updates, should happen via the relevant task 'cards' within DS-specific lists in the [WP1&7 Trello](#) board.** (Any additional project communications activities will be coordinated with partners by WP7 in complementary ways via Trello, emails and meetings.)

Table 10: Stakeholder attributes and types based on assessment (based on Mitchell et al. 1997)

Stakeholder Type	Engagement Type by DS	Communication Type by DSs and WP1 and 7
Dormant: Possess power to impose their will, but without legitimacy or urgency, their power remains unused. E.g. A potential investor.	E.g. Invite to meetings if needed, keep them informed via communications.	E.g. Keep informed (E.g. newsletter, social media, etc.).
Discretionary: Possess legitimacy, but no power or urgency. E.g. non-profit who receives donations.	E.g. Invite to meetings, keep them informed via communications.	E.g. Keep informed (E.g. newsletter, social media, etc.). Not urgent.

Demanding: Possess urgency but no power or legitimacy. E.g. individual protester.	E.g. Invite to meetings and be sure to balance their input, listen to their needs, keep them informed via communications. Have discussions.	Keep informed (E.g. newsletter, social media, etc.). Be wary of potential conflicts.
Dominant: Have a certain authority and potential influence over decision-making, ability to act on legitimate claims. Might have a formal mechanism acknowledging the importance of their relationship with the DS. E.g. funders, authorities, a SH with a formal claim or tie to the DS, including a specific role in the DS activities or as an end-user, etc.	E.g. Invite to meetings and workshops, ensure their perspectives are heard and acted upon.	E.g. Co-produce reports, statements, keep updated regularly, social media, etc.
Detrimental: May seek to advance their claims, even though they are not legitimate. High risk for the DS success. E.g. Strikers, saboteurs.	E.g. Understand risks, preparedness plans, mitigation measures, seek mediation, keep informed, ask for feedback. Have discussions.	E.g. Communicate regularly and understand issues.
Dependent: Lack power, but have urgent and legitimate claims. They depend upon others for the power necessary to carry out an action. E.g. local residents, natural environment representatives.	E.g. Invite to meetings, workshops, keep informed.	E.g. Communicate regularly, share reports and email updates.
Definitive: Possess all 3 attributes. Give priority and focus.	E.g. Pay attention to claims, invite to all meetings and workshops, ensure their claims are heard.	Important to keep informed of all that goes on, email, newsletters, social media and preferred pathways of communications. Share reports and statements.

What does this look like in practice?

Understanding your local context and the SHs in your DS is of high importance to planning the DS engagement, co-creation and communication activities. This will help you to better tailor your activities based on who you will invite, for what purpose, and to ensure that you are anticipating all possible circumstances and outcomes and preparing to adapt as needed.

In practice, this means that when your DS is ready to plan its first activities and/or meetings, you must:

1. Determine which activities you want to host;
2. Ensure that you invite all relevant SHs to those activities, balancing out the Quintuple Helix SHs as relevant, as well as the SHs categorisations based on the Mitchell et al. (1997) framework. For example, you should aim to create a balance between powerful actors in the room with other actors who may have legitimate claims but little power, because the latter may feel intimidated and as a result may not be able to express themselves freely.
3. Based on your understanding of the SHs and your ambitions for the activity, you can plan accordingly to ensure the active engagement of all the SHs. See Section 5 for more details on the key principles of effective engagement and communications.

More details on these steps and activity planning is covered in the following section.

Engagement, Co-creation and Communications Planning and Roadmaps

In order to effectively plan your engagement, co-creation and communications activities and meetings, you will as a DS need to:



- (1) **Prepare a engagement activity / communication roadmap** for the duration of the project, to plan and coordinate all the activities you want to organise with your SHs for the rest of the project, as in Figure 2. A template is [available in SharePoint](#). Figure 2 shows engagement, co-creation and communications examples, as well as what month and year each could take place. In your roadmap you should include which ToC element it is linked to, as relevant. The template includes the minimum information to include in your roadmap; your template design can be adjusted as long as it incorporates all the same elements (activity, when, and which element of the ToC it is linked to). This roadmap is a specific subset of your ToC, focusing on the engagement and communications activities to achieve your DSs big picture ambitions, which are seen in the overall ToC. Once you have completed your roadmap, upload to your relevant DS folders and share with WP1 and WP7.
- (2) Once you have planned an overview of your engagement and related communications activities, then **prepare an engagement and communications activity planning document** (see Table 2) to effectively outline your meeting objectives, logistics, roles and responsibilities, participants to invite and balance, timing, etc. This can be used internally and externally to send out to the meeting / activity attendees. You can expand and add more rows as you need. For example, you can add a row including methods (moderation techniques, engagement tools, etc.), formats (e.g. breakout discussion, roundtable) to use in the meeting and so forth. A [Word document template](#) of this is available in SharePoint. Once you have completed the planning document for each meeting, upload to your relevant DS folders for that specific activity and share with WP1 and WP7.
- (3) **Update your ToC** as needed with new activities, outputs and outcomes as relevant and linked to your roadmap. Flag in the ToC and in the roadmaps with a numerical or letter code which activity corresponds to what to keep track, and how the different activities correspond to each element of the ToC and therefore your DSs overall ambitions and impact.
- (4) **Update your DS Trello cards** as needed with: links to related documents, SharePoint folders, web pages; checklist tick-offs; next-step deadlines; tagged comments to relevant partners & WP1&7 members in the board. This allows all current (and potentially future) relevant actors from within the project to find all the information they need in one place and add their own contributions to progress the work.

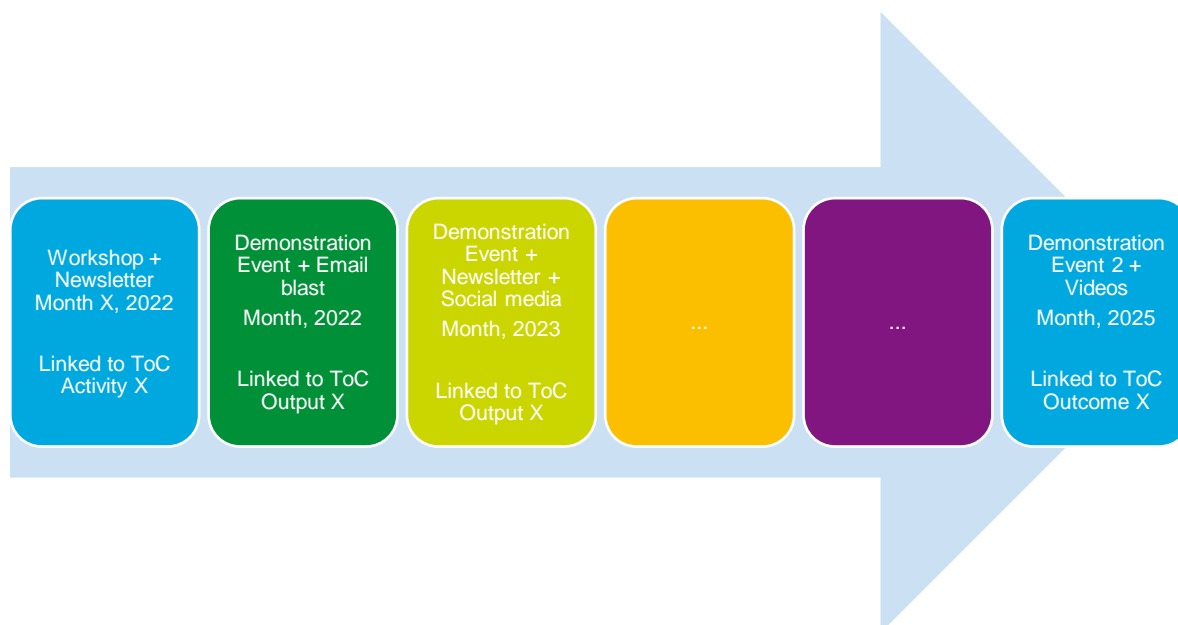


Figure 2 Stakeholder Engagement, Co-creation and Communications Roadmap Planning

Table 11 Engagement Activity and Communications Planning Template

Engagement Activity Title	Choose a title for your engagement activity										
Planning:	<p>Date / Month (tentative – indicate in project month number and actual month and year) and add into engagement activity roadmap</p> <p>Location / Venue</p> <p>Roles and responsibilities of DS partners and/or stakeholders</p>										
Program of the Engagement Activity:	<p>Example of a program to be included/drafted:</p> <ul style="list-style-type: none"> • 10:00 – Introduction • 10:15 – Ice breaker activity to get to know each other • 11:15 – Presentation from DS leader about topic • 11:45 – Breakout into groups to discuss • 12:30 – Feedback from the breakout groups <p>...</p>										
Participants / Target Audience:	<p>All stakeholders to be invited to this meeting, organized by Quintuple Helix and the Mitchell et al. framework – this helps you to have a breakdown and be comprehensive in who you are engaging and an overview about who the SHs are and how to engage them based on their power, urgency and legitimacy, etc.</p> <p>Ex:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SH Name</th> <th>Organisation</th> <th>Quintuple Helix</th> <th>SH Category</th> <th>Gender</th> </tr> </thead> <tbody> <tr> <td>Stakeholder XYZ</td> <td>ABC Research Institute</td> <td>Academic</td> <td>Demanding</td> <td>F/M/NB</td> </tr> </tbody> </table>	SH Name	Organisation	Quintuple Helix	SH Category	Gender	Stakeholder XYZ	ABC Research Institute	Academic	Demanding	F/M/NB
SH Name	Organisation	Quintuple Helix	SH Category	Gender							
Stakeholder XYZ	ABC Research Institute	Academic	Demanding	F/M/NB							
Objective(s) of the meeting	<p>The below are examples of objectives for an engagement activity with the stakeholders, adjust these based on the timing and progression of the DS:</p> <ul style="list-style-type: none"> • Validate with stakeholders pre-identified objectives, mission and scope • Validate with stakeholders the composition of the community and fill any gaps (are we missing any important stakeholder?) • Co-define with stakeholders short and long-term value and impact • Co-create new knowledge on climate change in our DS region • Seek input from SHs about a specific topic • Validate or demonstrate pilot technology / solution and gather feedback • Other as needed 										
Communications	<p>Bearing in mind the objectives and participants for this activity:</p> <ul style="list-style-type: none"> • What is the 'key message' at this time, for this audience, to be delivered before / during the activity / event? • What is needed to support this activity / event before it happens? E.g.: <ul style="list-style-type: none"> - 'invitations' (leaflets, emails, event listing & web content, social media posts & hashtags, registration page/tool content, personal data consent, media notification/press release, 'ambassador' activation etc.) - creation of supporting content (graphics, web content, slides, Mentimeter, printing etc.) • What is needed to support this activity / event while it is happening? E.g.: <ul style="list-style-type: none"> - content (ppt content, graphics, videos, animations, key messages, story-telling approach, readability etc.) 										



- on-site information / visibility (branded signage, leaflets, exhibition material, badges, flags, giveaways, ppt template etc.)
- online information / visibility (social media posts & hashtags, quotes, graphics, links, tagged accounts, links to related online content etc.)

- What is needed to support this activity / event after it has happened? E.g.:
- content (quotes, photos/screenshots, graphics, key statistics, news report, web content (updates) etc.)
- dissemination & wider reach (news in external channels, target relevant audiences, cross-link related on-line content, repeat/updated social media messages with tagged accounts, etc.)
- What are the external social media accounts / newsletters or other channels that you can tag / target for most effective dissemination?
- Do any of the above require assistance from IMPETUS WP7 (ld@esci.eu)? (E.g. to help with content creation / dissemination in English, via project or sister project accounts.)


Have the communications tasks been captured in the [WP1&7 shared planning Trello](#) with the relevant people tagged, information shared, responsibilities assigned and deadlines (with sufficient lead times) and possible translation needs indicated?

Related WP / Project Task: / Indicate which WPs will add content to this engagement activity as relevant.

How to invite SHs to your activities

The topic, objectives and who can affect or be affected by this activity/topic will determine who to invite to the engagement activity. Then make a list in this section in the above engagement activity planning template, categorising by Quintuple Helix (QH) and the Mitchell et al. (1997) framework, and then looking into your SH register to see any other relevant information about those specific SHs, as seen in Figure 3. For example, if you filter on someone from the Industry Quintuple Helix type, then you can then filter to see which SHs have indicated their potential contributions (responses to survey questions in your SH Register) based on your needs for the specific engagement activity.

Additionally, demonstrating the value-add of joining your DS activities to SHs is a crucial step in inviting them to join and ensuring their active involvement over the course of the project (Andrews, Mooren, Munaretto, Gamboa, & Palmeros Parada, 2021; Mansilla, Perkis, Munaretto, Andrews, & Mooren, 2021; Rebelo et al., 2021). Consider mentioning in your invitation the benefits and or using the Wow-How-Now elevator pitch approach, especially when engaging new SHs.



- Networking
- International expertise
- Innovation
- Shared sense of action
- Synergies

WOW | Think of an intriguing opening statement to get attention

HOW | Explain briefly how your community addresses a need or solves a problem

NOW | Give an example: "Now..." or "For example..." of current actions or activities

The Wow-How-Now approach can be used in your email invitations (or other communication types depending on the activity) to the SHs, as well as sharing with them the short and long-term values of engaging with your DS. This then nicely links to the overall ambitions and impact in your ToC!

		Survey Q3: How Important is climate change to you?		Survey Q17: What can you contribute to the DS?							Survey Q18: Which types of activities are you interested in?											
QH Type	Location	Stakeholder Category (Guidance 2 - Table 1)	To you personally	To your work	Data	Research	Knowledge	Network	Organising / meeting support	Outreach and Comms	Other	Events to demonstrate solutions	Workshops or knowledge exchange with	General info sharing meetings	Meetings with public authorities	Webinars or virtual tours	Livestreams online	Interviews	Surveys	Learning Opportunities	Other	
(Media-based and culture based)		Dependent																				
Citizens, Media and Culture (Media-based and culture based)		Dependent	Extremely imp	Extremely imp			x	x		x		x	x	x	x	x	x	x	x	x	x	x

Figure 3 Example of how to use the SH Register for inviting SHs to an engagement activity and how they could contribute



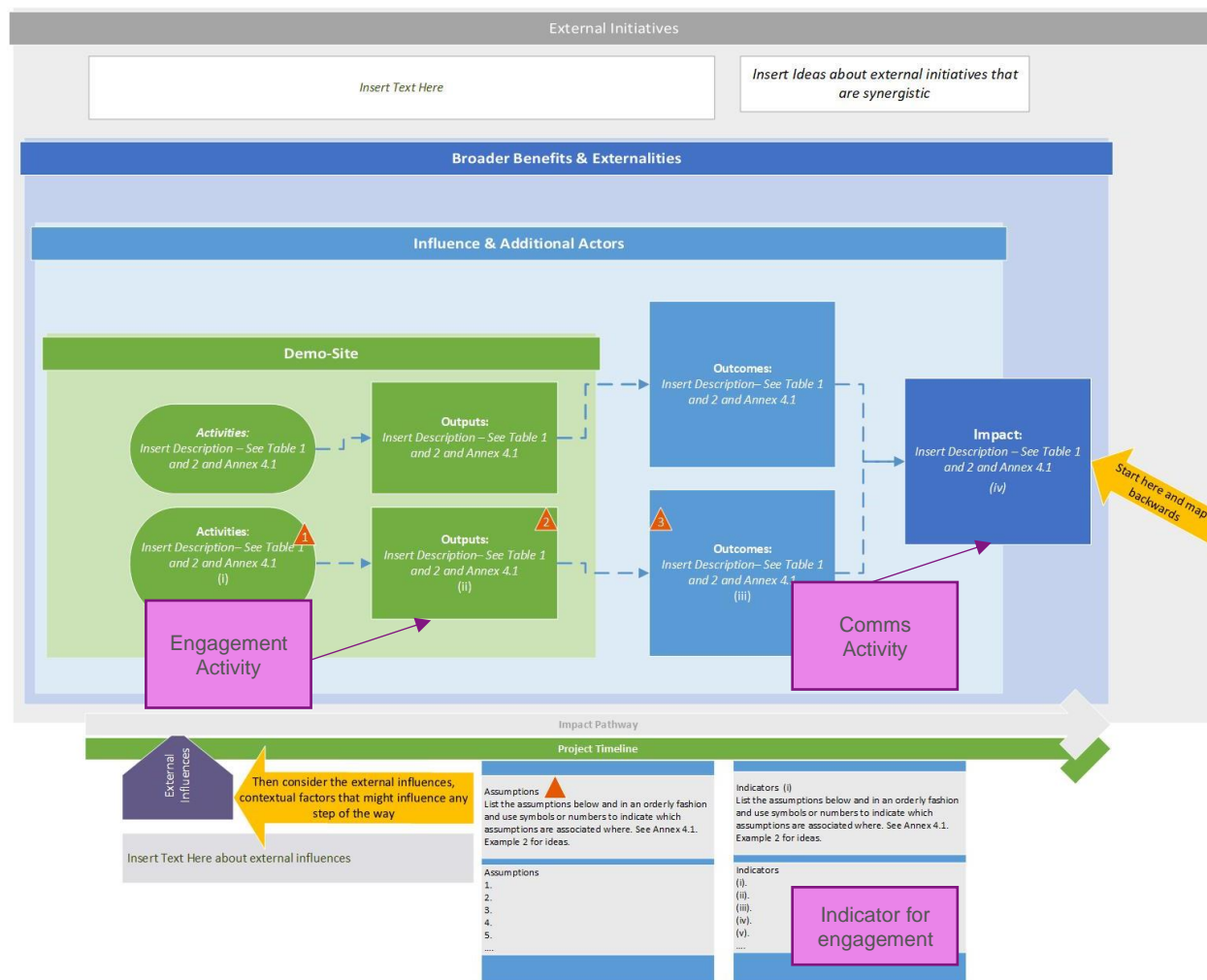


Figure 14 Theory of Change (ToC) with additional/updated engagement, co-creation and communications items examples

If you will include some of the engagement, co-creation and communications activities in the ToC directly, they can be added using additional boxes, arrows and/or indicators where relevant, as per the pink boxes as examples in Figure 4 above.

As mentioned previously, the engagement, co-creation and communications planning, including using the ToCs and roadmaps, will culminate in your **DS Stakeholder Engagement, Co-Creation and Communications Plan**.

Important note

All the DS plans will be included in D1.1 due by end of January 2023 and will also be reflected in WP7 planning and follow-up deliverable reports. Day-to-day updates and progress should be conducted and tracked in the WP1&7 Trello board, cross-linking as appropriate to the WP4 Trello board.

These plans of course may change over the duration of the project. The ToCs and roadmaps, as well as the SH registers, should be updated regularly according to local realities and needs, and saved and uploaded to the project SharePoint. WP1 will remind DSs to review the ToC, SH register and the engagement and communications roadmaps every 4-6 months. **More day-to-day updates and progress should be conducted and tracked in the [WP1&7 Trello board](#).**



In the next sections, engagement, co-creation and communication options and resources will be listed and hyperlinked, with the ConCensus approach covered in Annex 1. The engagement, co-creation and communication types and methods should be used complementarily to ensure the most effective and targeted options for each DS to achieve their objectives.

Engagement Methods & Resources

Below, we list a range of different engagement and co-creation resources, from which each DS can pick and choose based on their objectives, tasks and the SH types. For example, in your DS you may need to collect data or co-create a local innovation, or get feedback during a demonstration event. Depending on the type of knowledge co-creation or feedback you need from SHs, you will then define which type of engagement approaches you need. Some engagement approaches may be very targeted to specific stakeholders, while other engagement approaches will be broader in reach and will need to be completed as a means of due diligence and keeping all relevant SHs informed. Keeping all stakeholders informed is a minimum requirement to ensure that all SHs feel that they can give input or be involved in the DS as needed or as relevant over the course of the project, building trust and transparency.

Below is a non-exhaustive resource list of engagement methods. Of course, there may be many other types of engagement methods you are familiar with and may wish to use. This will all be discussed together with WP1 and WP7 in one-on-one DS meetings, and then defined in the engagement and communications roadmaps and the ToCs.

In [Annex 5](#), we have crafted a '[DS Engagement Activity and Communications Checklist](#)' which is also downloadable as a separate document in SharePoint. This can be used by DSs organizing meetings and activities to ensure that you are best prepared.

Types of Engagement and Co-Creation Activities with SHs:

- General information sharing meetings with a broad group of SHs
- Meetings with public authorities
- Workshops to co-create solutions or knowledge-sharing content, make decisions (online or in-person)
- Events to demonstrate solutions
- [ConCensus Approach](#) and [Annex 1](#)
- [Decision Theatre Approach](#), [White paper on Methodology](#)
- Webinars
- Virtual tours
- Livestream activities, such as event sessions, online Q&As, Ask-me-Anything's, etc.
- Interviews
- Surveys
- Learning opportunities such as online training courses, face-to-face training sessions, workshops, etc.

Mandatory Engagement Type as per Grant Agreement

Task 7.5.2. Resilience Knowledge Booster workshops & engagement sessions dedicated to education and knowledge transfer:

- *Whether virtual or physical, at least 2 workshops or engagement sessions will be held in each DS. Depending on the chosen Resilience Knowledge Booster formats and engagement strategy, this may be focus groups, ideation sessions, beta testing or information "town hall" type sessions.*

These need to be included in the engagement and communications roadmap and ToC planning.



Outputs Co-created with SHs during Engagement and Co-Creation Activities:

- Reports
- Whitepaper / academic paper
- Guidelines / recommendations / How to...
- Databases
- New knowledge / explainer for a specific output (report, news item, web content, course module, to feed into the development of a certain technology or other output in the DS, etc.)
- Feedback on demonstrations or pilots via meetings and feedback sessions

Engagement and Co-Creation Tools

- Online meeting platforms: Zoom, GoToMeetings, Webex, Microsoft Teams, etc.
- Online collaboration platforms: Mural, Miro, GroupMap, Remo, Trello, Padlet, Zoom breakout rooms, Wiki, SharePoint, etc.
- Online survey or polling / interaction tools: polling in Zoom, Mentimeter, Slido, Kahoot!, GroupMap, Google Forms, SurveyMonkey, Doodle poll, etc.
- Face-to-face interactivity / formats: e.g. 'post-it battle', 'flipped' panel discussion, 'challenge us to your challenges', team games, breakout groups, dialogue/interview in front of an audience, lightning talks, mini workshops.

Engagement and Co-Creation Resources:

- ULTIMATE, EU Project, **D3.4 Co-Creation**, [Annexes 3 and 4](#) include an overview of co-creation tools and moderation techniques
- **Workshop methods and activities**, Source: <https://voltagecontrol.com/blog/workshop-methods-activities/>
- **Library of facilitation techniques** based on objectives, online or offline, etc., Source: <https://www.sessionlab.com/library?q=hyper>
- **Facilitation skills** (This will likely be the DSs in most cases, so important to build these skills): <https://ctb.ku.edu/en/table-of-contents/leadership/group-facilitation/facilitation-skills/main>
- **Community building toolbox**, Source: <https://ctb.ku.edu/en/using-tool-box>, with resources for example on **decision-making**: <https://ctb.ku.edu/en/table-of-contents/leadership/leadership-functions/make-decisions/main>
- **Facilitation and collaboration to navigate complexity**: <https://perspectivity.org/work/#toolbox>
- **Deep Democracy**: https://perspectivity.org/wp-content/uploads/2021/07/Perspectivity_Training_DD.pdf
- **Further resources** on [Eurecat SharePoint](#) (WP1 > T1.1. > 3. Engagement > Resources)
 - Conflict and negotiation
 - Participatory systems mapping
 - Design tools and methods for innovation

Important note

Each Work Package (WP) will need to talk to the DS and the SHs during the project to validate, gather information or feedback for their different areas of work. This should also be planned in the engagement & communications roadmaps and can be facilitated using one of the engagement and communication methods or techniques.



Communication Methods and Resources

As with the engagement methods and techniques, the methods for communicating with the SHs will be decided based on the ultimate objectives, ToCs, SH survey analysis, internal assessment and local needs and realities.

The different types of communications to support SH engagement will be added to the engagement activity planning document and roadmaps. The communication methods and tools should complement and enrich the SH engagement and will be discussed and tailored with the DSs and WP1 and WP7 in one-on-one meetings.

The detailed engagement and communications plans agreed between WP1, WP7 and the DS teams will provide significant inputs to the overall (WP7) IMPETUS framework for communication, collaboration and dissemination that all partners help to define and to implement. This framework as explained in deliverables D7.1, D7.2, D7.8 and D7.9:

- Defines target audiences, their characteristics, understanding, beliefs and engagements
- Attributes objectives with desired outcomes and actions.
- Develops key messages capitalising on triggers and motivations.
- Maps available mediums for delivering messages and receiving feedback/input.
- Gives clear role attributions to partners and networks at local, project and beyond levels.

The communications and dissemination activities that support DS engagement will be planned in line with these needs and drivers, as well as those of WP1 and the DS work plans. Furthermore, all implemented communication and dissemination activities will be reported upon in other WP7 deliverables.

Types of Communication:

- **Written** communications: web content & URLs & SEO fields, event descriptions and invitations, e-mails, news articles and newsletters, blog posts, press releases, magazine articles, opinion pieces, social media posts & hashtags, reports, guidelines and recommendations, How to... documents, whitepapers, academic papers, success stories, case studies, video scripts and captions, photo captions, surveys, publications, etc.
- **Interactive** communications: videos, social media posts, webinars, training / learning sessions, events, polls, surveys, email threads, content on wiki or other 'sandpit', etc.
- **Visual** communications: videos, photos, photo galleries, animations, graphics, infographics, data visualisations, charts and graphs, ppt, graphic design elements (e.g. text design in documents) etc.
- **Verbal / audio** communications: phone calls, presentations, meetings, video voice-overs & audio, interviews, podcasts etc.
- **Printed** communications: e.g. brochure, flyer, leaflet, poster, conference exhibition stand, pull-up banner, (branded items e.g. feather flag, t-shirt, bag, meeting signage & badges, etc.)

Mandatory Communication 'Type' as per Grant Agreement

Task 7.5.3. Webinars and virtual visits:

- *Online sessions profiling each of the demo site cases, their key challenges, developments and solutions – as well as key results and resources, will be a regular feature.*
- *Held in collaboration with EU & international cluster and network partners to boost impact and audience wherever possible.:*

These need to be included in the engagement and communications roadmap and ToC planning.



Purposes of Communication

- **Raise visibility of IMPETUS**, its goals and activities overall, its key messages and achievements etc.
- **Raise visibility of the DS** goals and activities, challenges and solutions, partners and their relevant expertise, how they contribute to IMPETUS and climate change resilience regionally, nationally, internationally.
- **Raise visibility of events and activities**: promote an upcoming event, share information and engage during an event, report on a recent event, follow up on past event (longer-term) outcomes or achievements etc.
- **Raise visibility of specific achievements or outputs** (e.g. publication of a set of recommendations), promote them actively to relevant target audiences, encourage uptake and use.
- **Pitch project stories / information / articles / papers** to media outlets, potential collaborators, conference organisers seeking speakers, academic journals etc.
- **Listen** to needs, feedback, ideas, suggestions, complaints, praise and show an appropriate response.
- **Contribute new knowledge or expertise** gained through IMPETUS activities to relevant academic fields and thereby raise visibility of the project goals, messages and achievements with specialist target audiences.

Mandatory Communication 'Target' as per Grant Agreement

Task 7.5.4. Academic and scientific dissemination and events:

- *Key RTO and university partners to mobilise academic results, with focus on identified key exploitable deliverables with a technical focus and extend socio-economic impact of research using Altmetrics.*
- *>10 academic & scientific conference papers and open access journal publications are envisaged.*

These need to be included in the engagement and communications roadmap and ToC planning.

Communication Tools / Channels:

These largely overlap with 'types' as above, but in addition:

- **Ambassadors**: individuals from among SHs, partners or wider community who have relevant skills & experience and/or personal/professional visibility profile / influence / expertise and who are interested in the project / climate change adaptation goals and willing to promote the general goals / specific activities messages etc.
- **Community groups**: creating or joining forces with groups that pro-actively communicate about the issues, activities etc, could achieve a form of 'ambassadorship' and potentially lay the ground for the long-term legacy of the project.
- **More unusual / creative tools** could include developing project / climate-change adaptation-related games / quizzes / puzzles / apps / artistic, theatrical or musical creations, putting branding or messages on e.g. beer mats, pavements, laptop stickers or items related to specific climate-change impacts / solutions such as fans, water bottles, tourist information etc.
- **Blogs, vlogs, podcasts, newsletters** or other communication channels that already exist and reach a large / relevant target audience can be approached about carrying and disseminating project / DS / engagement-related content.



Mandatory Communication 'Tool' as per Grant Agreement

Task 7.3.2. Resilience Knowledge Booster communication and dissemination ambassadors:

- *IMPETUS will deploy a series of C&D ambassadors in the project demo site ecosystems. Key contacts able to target regional level, including in local languages, contexts and cultures. The desks will be supported by partners and receive creative support and strategic alignment from ESCI. Key activities of ambassadors:*
 - *Piloting local public events, citizen engagement actions and conferences, staffing the RKB from a communication perspective;*
 - *Generating and submitting news, media (graphics, photos, video), coordinating hyper-local social media. Coordinating submissions and content from demo site partners.*

Identifying and establishing one or more local / regional / national communication and dissemination ambassador(s) needs to be included in the engagement and communications roadmap and ToC planning.

Mandatory Communication 'Channel' as per Grant Agreement

Task 7.6. Event outreach:

Promising regional, national and international events targeted to carry IMPETUS content. Privilege to speaking opportunities with proactive targeting of call for papers, awards and high visibility awareness events. Local C&D ambassadors and the CSA (ST7.4.2) featuring fellow Green Deal projects will help define the best opportunities. Beyond Europe, partners like KWR WaterShare and UNSDSN will incorporate IMPETUS into existing high-profile event commitments and communications (i.e. Circular Economy World Congress, UN Global Solutions Forum).

- *This task will generate D7.6.*
- *It will require inputs from all partners in the elaboration of different events.*

Identifying and targeting local / regional / national events for project & DS activities representation and wider engagement should be included in the engagement and communications roadmap and ToC planning.

Communication Resources:

- Information about the IMPETUS communication, collaboration and dissemination strategy, management, implementation, and monitoring as defined in [D7.1 provides a 'handbook' reference for partners](#).
 - The update, D7.2 will be finalised (with partner, DS and WP1 inputs) by end of November 2022.
- [Trello for DS, WP1 & WP7 shared planning & internal communication](#) tool
- [IMPETUS logos and branding](#) in SharePoint folder
- IMPETUS [pptx template](#) (empty - filled showcase set coming) in SharePoint



- Branded, translatable, clickable [personal data consent form and explainer](#) document in SharePoint
- SharePoint folders for [DS-specific WP7 content & activities](#), such as photos with copyright information and other files
- [Principles for effective communication and public engagement on climate change: A Handbook for IPCC authors \(Jan 2018\) pdf](#) downloadable from SharePoint
- [Making the Most of Your H2020 Project: Boosting the impact of your project through effective communication, dissemination and exploitation pdf \(Mar 2018\)](#) from the European IPR Helpdesk Training Team, downloadable from SharePoint
- [Ten principles of citizen science by European Citizen Science Association \(2015\) pdf](#), downloadable from SharePoint
- [ESCI How To guides SharePoint folder](#) containing guides on mobile photography, conducting interviews, filming with mobile phones, filming statement interviews.
- [UN Communicating on Climate Change](#) webpage.
- [ESA Climate Change from Space](#) interactive pdf
- [UNICEF Toolkit for Young Climate Activitists](#) webpage and links
- [UNDP Climate Box: An interactive learning toolkit on climate change](#), download via webpage
- [US National Park Service Climate Change Communication Toolkit](#) webpage and links
- [Climate Communications and Behavior Change: A Guide for Practitioners](#) pdf
- [The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides and the Interested Public](#) pdf

Monitoring and Evaluation: Stakeholder Consent, Feedback & Reports

Work to develop the IMPETUS engagement, co-creation and communications monitoring and evaluation tools and processes will be ongoing and fully explained in a follow-up document. Monitoring and evaluating the progress and effectiveness of these activities will provide vital feedback for internal reflection and learning on how to improve as well as inputs for official project reporting and deliverables. For now, the following forms provide initial support for such evaluation and reflection:

Personal Data Privacy Consent Forms

Consent forms need to be filled in by all stakeholders once to cover the privacy of their personal data for the duration of the project. Any time a new stakeholder joins an activity or meeting, they will have to fill it out. You can find the consent form in English in Annex 4 below, [with a URL to the digital file](#). **Each DS team should first translate the consent form as necessary for better local understanding and ensure that the appropriate contact person and organisation details are provided for who is collecting and storing the data, depending on the tool to be used.** Stakeholders can either be sent the clickable form as a file and fill it out digitally, or the document can be printed and provided to stakeholders for them to fill out in person. Completed forms should be uploaded by your DS team to its SharePoint folder after each meeting, for archiving purposes (if the forms were printed, scan them and upload to the relevant SharePoint folder). The European Commission is very strict on privacy policy issues and if the IMPETUS project will be audited in the future, we need to be able to provide evidence that we complied with the regulation. Signatures should not normally be requested as a signature is, in itself, another (and very sensitive) item of personal data.

Feedback forms

Monitoring and evaluating your stakeholder engagement, co-creation and communications activities is of utmost importance. This will allow you to understand how stakeholders are feeling about your activities, how effectively you are carrying out the work, and how to improve over time.

In [Annex 2](#), you can find a stakeholder feedback form in English as an example. This feedback form will need to be translated by each DS and used at the end of every engagement activity (workshop, meeting, etc.). WP1 will send each DS a link to the word file to be translated (*WP1 > T1.1. > DS Folder > SH Engagement, Co-Creation and Planning Folder*). In order to ensure a high response rate, we



recommend that you reserve time in the event agenda and ask all the stakeholders to fill it in there and then. You should also disseminate the link in a follow-up email after the meeting or activity and request anyone who did not yet complete it to do so, in case some people missed this part of the agenda or did not complete the form.

WP1 will share the results of the feedback survey with you after each meeting or activity, so you can reflect on any improvements that you could make in preparing the next events.

Meeting/Activity Report

After each meeting or engagement activity, the DS team is responsible for filling out an engagement activity report, as seen in [Annex 3](#) or downloadable as a [Word template](#) from SharePoint. These should be completed in English only as these will be used for internal project purposes: to keep track of who is attending meetings, how the meetings went, if objectives are being met, any follow-ups required, level of uptake of the communications outputs etc. This is an important part of the monitoring and evaluation, reflection and learning process by which each DS will track its stakeholder engagement, co-creation and communications impacts and deliver on its goals. Furthermore, the information will provide valuable inputs to the planning of any news reporting or other post-event communications by the DS team or WP7, as well as to official project (deliverable) reports. WP1 will send reminders when meeting reports are due. Once each meeting report is filled out, upload it to the relevant DS SharePoint folder with the date of the activity in the file name as well as in the meeting report itself and upload the SharePoint file link into the relevant Trello card so that relevant DS / WP1 / WP7 team members will be notified that it is available.

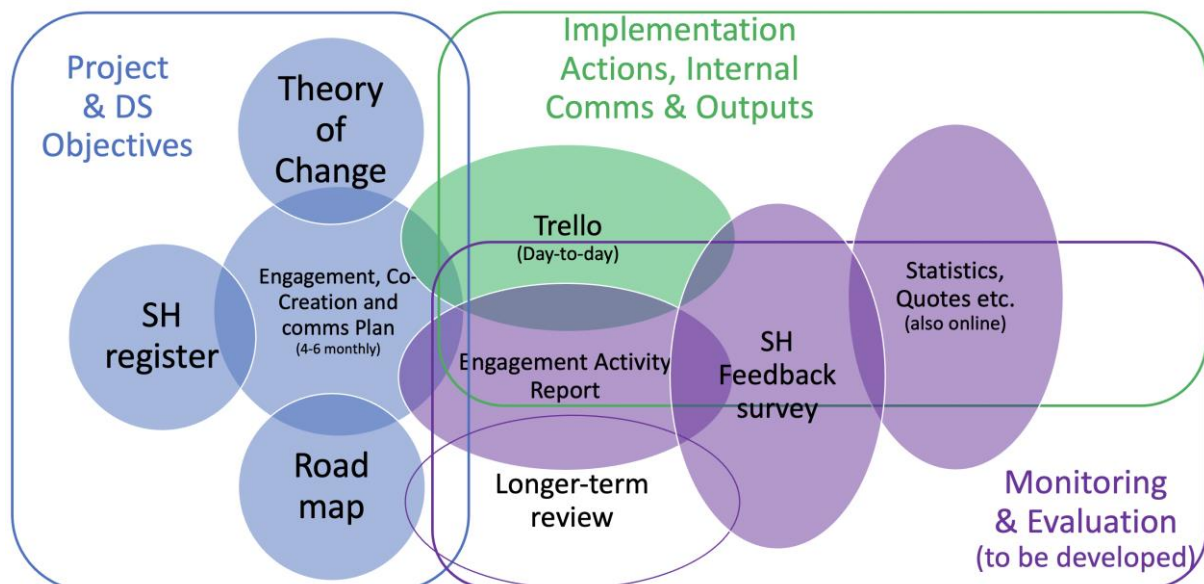


Figure 5 Overview of the integrated engagement, co-creation and communications tools and process (monitoring and evaluation elements to be developed further)

Key Engagement and Communication Principles for Success

SHE and communication is usually informed by a set of principles that define the core values underpinning interactions with stakeholders. Common principles based on International Best Practice (Avellán, 2021) should be upheld in each of the DSs' interactions with SHs include the following:

- **Trust** is achieved through mutual, open and meaningful dialogue that respects and upholds a community's beliefs, values and opinions;
- **Commitment** is demonstrated when the need to understand, engage and identify the community is recognised and acted upon early in the process;
- **Coherency and consistency** in messaging and communications is upheld and monitored throughout the duration of the project, and links to building transparency and trust;

- **Integrity** occurs when engagement is conducted in a manner that fosters mutual respect and trust;
- **Flexibility and adaptability** is demonstrated by listening to SHs, their concerns and ideas, and adapting the ToCs and engaging new SHs as needed throughout the duration of the project to ensure the continued success of the DS and its ambitions;
- **Respect** is created when the rights, cultural beliefs, values and interests of stakeholders and neighbouring communities are recognised;
- **Transparency** is demonstrated when community concerns are responded to in a timely, open and effective manner;
- **Listening** is demonstrated through hearing the SHs needs and concerns, and ensuring that engagement and communications are a dialogue between the DS and the SHs;
- **Timely** and early engagement is demonstrated by DSs involving all relevant SHs as early on as possible, to help outline potential risks, and to help generate ideas and solutions on early questions and considerations in the DS (Rushmer, Ward, Nguyen, & Kuchenmüller, 2019);
- **Inclusiveness** is achieved when broad participation is encouraged (gender, religion, ability, ethnicity, age, etc.) and supported by appropriate opportunities for participation across all relevant SHs.

Roles and responsibilities of those leading the engagement and communication

As a DS team, you play a lead role in facilitating IMPETUS engagement and communications activities, supported by WP1 and WP7. These activities are of vital importance to the overall success of your DS and the whole project. It is therefore important that, in all that you do with SHs, you remember this important role and follow these principles:

- **Accountability** - Develop rules, procedures, and norms of accountability as the DS, whereby SHs feel that they can reach out to you, that they are heard, and that their opinions matter. This will help to build trust and transparency in all that you do as a DS in SH engagement and co-creation.
- **Effective management** - Assign roles and responsibilities to the different DS partners to ensure effective management of the DS and its SH engagement, co-creation and communications. This has been detailed in elements of the Grant Agreement, such as ensuring communications representatives in each DS team, as well as the communications ambassadors explained above. This will help to improve the performance and management of the DS, as well as helping partners to fulfil their obligations to WP7 and WP1 and the project goals. Overlapping roles and responsibilities (or decentralised management styles) can help to improve accountability and the availability of resources in the face of changes in each DS.
- **Providing a safe space to co-create knowledge with diverse actors** - See the principles above, which will contribute to creating such a safe space for all SHs. This 'safety' includes adhering to best practices regarding personal data protection, copyright and intellectual property rights as they apply to the SHs you engage with.
- **Good communication**: Timely, consistent and informative communications are vital to DS SH engagement. Effective communication is about listening as much as 'speaking', and responding to needs and requests as they come up. Listening can be done by inviting ideas from a group during an activity, but also by paying attention to the SH feedback forms and noting down such inputs in the meeting reports and implementing any suggested actions that are appropriate and possible. Responding to (liking, commenting, tagging and sharing) relevant social media posts in a timely and appropriate way in another way of listening and engaging with SHs as well as getting information 'out there'.

It is important to take your role as a facilitator and manager of your DS SH engagement, co-creation and communications seriously. This role is an important one because you are at the forefront of representing IMPETUS and supporting knowledge co-creation and decision-making among SHs in your DS to deliver outputs such as reports, digital twins, databases or others, and in turn effect local impact (Cash et al., 2003). Effective SH engagement and co-creation leaders and managers should be aware that they need to invest a considerable amount of time and effort in communication, translation, and/or



mediation and in fulfilling the principles above in order to produce more useful and credible knowledge with and across all SHs (Cash et al., 2003).



Guidance 3 Annexes

Annex 1: Engagement Method ‘ConCensus’

This Annex explains the ‘ConCensus’ engagement method, as defined in the IMPETUS Grant Agreement.

What is it?

THE QUINTUPLE HELIX

The principal challenge we are facing as a society in the modern world is the creation of a sustainable global community which manages to live and evolve within the ecological boundaries set by our planet. A vital step in such a move towards a far more balanced approach is the recognition of the importance of two factors which are of great relevance to the European Union’s ‘*Twin Transition towards a digital and green economy*’. First, is the intrinsic relationship between the world of water, energy, food and ecosystems. The WEFE Nexus is defined by both the JRC of the EC and the UFM as ‘...*addressing sectoral interdependencies in the management of natural resources and as an approach for operationalising the United Nations’ 2030 Agenda for Sustainable Development*’.¹ The second factor is social and political by nature. It is the true and open engagement of the Quintuple Helix, the coming together of all social sectors in a process of co-creation, implementation and analysis of public policies. In 1995, Henry Etzkowitz and Loet Leydesdorff published “The Triple Helix - University-Industry-Government Relations: A Laboratory for Knowledge Based Economic Development” in which they described how a closer bilateral relationship between either the academic sector, private sector or the public sector would evolve into hybrid institutions which would mutually strengthen the aims of each sector; research, the production of commercial goods and the regulation of the market. Much would depend on which sector was the driving force behind the initiative. If the public administration is the dominant catalyst, the result is a top-down approach which would result in the strengthening of intersectoral ties. If market forces are the predominant factor, the ties would be weaker and far less defined whereas if knowledge is the lead sector which, in the opinion of Etzkowitz, is precisely what had tended to occur in recent years, not only does knowledge itself gain more prominence but also the three elements tend to enjoy a more equally balanced relationship (Etzkowitz, 2003).

Building on the concept of the Triple Helix, in 2009, Carayannis and Campbell introduced the notion of the Quadruple Helix (Caryannis et al, 2009) and, three years later the Quintuple Helix. The Quadruple Helix approach argues that the world of research must relate to the real demands of society in general and that as a result there must exist a relationship between the original sectors of the Triple Helix with the end-users of innovation and civil society in general. In other words, the citizen. The Quintuple Helix is the additional input of cultural activity and environmental preoccupation and its effect on the four other helix sectors, although the definition of the fifth sector does vary depending on who is advocating the Helix at the time and is still the source of much debate. IMPETUS will interpret the fifth sector as being cultural stakeholders, who are capable of creating emotional stimuli with regards to the environmental issue at hand.

REPRESENTATIVE VERSUS OPEN GOVERNMENT

The growing recognition of the importance of the Quadruple and subsequently the Quintuple Helix has over the last decade been defended and advocated by supranational administrations especially when discussing the environment. The United Nations clearly stated that ‘...*one of the major challenges facing the world community as it seeks to replace unsustainable development patterns with environmentally sound and sustainable development is **the need to activate a sense of common purpose on behalf of all sectors of society**. The chances of forging such a sense of purpose will depend on **the willingness of all sectors to participate in genuine social partnership and dialogue**, while recognising the independent roles, responsibilities and special capacities of each.*’² When discussing the importance of the digitalisation of the water sector in 2021, EASME of the European Commission recommended that ‘*Legislators/Authorities must ensure that end-user engagement is considered a priority in the co-creation and implementation of initiatives involving the use of digital water technology*’ (European Commission, 2021). This, indirectly, would appear to suggest an important political shift from what is described as ‘representative or indirect government’ to ‘open or direct government’. This perceived move constitutes one of the most important elements of debate concerning 21st Century political theory.

¹ Conference on Water-Energy-Food-Ecosystems (WEFE) Nexus scientific advances in the Mediterranean region

² United Nations Environment Programme Decision: 27.2.



As the perception of the monopoly of political parties financed by private interest has intensified so has the search for remedies. In 2005, the OECD argued that '*There is growing consensus that openness lies at the heart of good and effective government as an essential ingredient of 21st-century democracy*' (OECD, 2005). It defined open government as '*the transparency of government actions...and the responsiveness of government to new ideas, demands and needs.*' In 2009, the Involve Group demonstrated that more open approaches would enhance the creation of objective data on which decisions could be based, reinforce a sense of '*integrity*', combat corruption and restore public faith in government (Gavelin et al, 2009).

The existence of trust or the lack of it, is an essential element in all types of policymaking but perhaps even more so when addressing environmental issues which often require long-term visions and sufficient time in order to bear fruit (Elelman & Feldman, 2018). Trust is required not only in the creation of a policy but also in its implementation. It can only occur if a) all sectors, representing the Quadruple/Quintuple Helix including the entity proposing a specific action are fully informed from the very outset of an initiative of all the advantages and disadvantages and subsequent results of said action and b) if all social sectors within the affected community are truly engaged. In 1997, Bohman discussed the concept of 'Deliberative Democracy', a combination of the rule of the majority but with a base founded on social consensus, permitting representative democracies (which are the socio-political reality in European Union member states) to coexist with more direct forms of governance (Bohman, 1997). Where this is most likely to occur and indeed where such an approach has been seen to be practicable is at the local, municipal level.

THE ROLE OF LOCAL GOVERNMENT

The European Union, the United Nations, the OECD and the World Bank have all been very clear. There has, during the last three decades, existed a broad call for the involvement of the **Quadruple/ Quintuple Helix**, for more **open forms of environmental policy creation and implementation** and for the need for local communities to become key stakeholders in the interpretation and implementation of supranational environmental policies aimed at establishing the basis for sustainable urban and rural municipalities. This desire for a top-down/bottom-up approach has been further stressed since the introduction of the European Green Deal where emphasis has been placed, in the words of EU Commissioner Virginijus Sinkevičius, on the necessity to involve '*...all social sectors in order to ensure the 'Just Transition' to a green and digital economy.*' Despite the tremendous effects of both the COVID-19 pandemic and the present military, social, economic and humanitarian crisis in The Ukraine, these remain solid EU priorities.

There are a number of reasons why local governments and local agencies such as utilities lend themselves to effective engagement of the Quadruple/Quintuple Helix and to act as the implementors of international environmental strategies. Direct access to the Private, Research, Citizen and Environmental/Cultural sectors of a local community is far more readily available to a local administration, as is the capacity to interact with all genders, age groups, income groups and ethnic minorities. This was, to a limited extent, demonstrated when the United Nation's Agenda 21 (1992) was executed in numerous municipalities around the World, whereby citizens including representatives of local industry, research institutes, members of NGOs and inquisitive citizens came together to envision their own communities in the 21st Century. The Covenant of Mayors for Energy, which was instigated by the European Commission in 2008 has provided further opportunities to demonstrate the effectiveness of municipal policies contributing to the overcoming of global environmental challenges. To date, nearly 11,000 cities, towns and villages have signed the Covenant which originally established objectives for the year 2020 and which has subsequently, under the name 'The Covenant of Mayors for Climate and Energy', identified significant objectives in renewable energy production, energy efficiency and the reduction of CO₂ by 2030.

OBSTACLES

There are obstacles to be addressed if purposeful public engagement is to be achieved:

- 1) The definition of engagement itself has been and continues to be debated. It cannot, as was the case all too often in the creation of the Agenda 21, be limited to attendance by members of the general public to conferences or workshops, where occasionally, a citizen can pose a question to a local expert. Despite the claims of many elected representatives, this is not policy co-creation and indeed has, in many cases, proved to be the cause of further disaffection and mistrust on the part of people who would otherwise be interested in contributing to the debate.



- 2) Participants have been observed to collaborate in public engagement processes as a means of advocating their own interests or the interests of a particular political party. As a result, they are often unwilling to contribute towards jointly created solutions and the result is that no new outcomes are produced. Indeed, by serving political-party interests, such members of local initiatives can deliberately constitute the principal means of undermining the value of an engagement process.
- 3) Time is a valuable commodity, and many members of society cannot permit themselves the luxury of dedicating the hours needed to build trust and a sense of common purpose. Furthermore, the representation of social sectors may provide a biased reflection of the population of the local community in question. Genders, certain age groups, low-income earners and ethnic minorities are often unaware of a public engagement approach or do not have the means or time to be able to contribute to the subsequent activities.
- 4) Public engagement does not necessarily lead to public consensus. Conflicts of interest, and individual differences of opinion must be overcome. The art of compromise can only be established over time, especially if the subject in question is highly controversial and capable of producing a strong emotional response. Only if a broad consensus is established can such an exercise have the opportunity to produce lasting effects.
- 5) Perhaps the most important aspect of any policy, once approved, is that of ensuring its continuity until it has truly provided the desired results. The principal obstacle to such continuity is political-party rivalry which at a local level can be just as vicious and single-minded as it is in any other sphere of political action. If, once approved, a policy is still being implemented when a change of local government happens, due to elections (Once every four years in Spain and Germany, once every five years in Italy and once every six years in France) or a vote of no-confidence, it is often the case that a policy, clearly identified with the programme of one specific party, is abandoned or relegated to the archives by that party's successful rivals before having been completed. The result is wasted time, wasted public funds and perhaps most importantly a failure to address pressing water-based issues.

CONCENSUS

To answer certain aspects of the aforementioned challenges, the concept of 'The COuncil of Citizen Engagement in Sustainable Urban Strategies (ConCensus) was created in 2017 and was then tested and implemented in practice. A scientific publication on the method was published (Elelman and FeldMan (2018).

The original ConCensus concept is an extremely simple one. By co-creating, from the outset, a policy by means of a process which involves a broad sectoral representation of the local community it is assumed that a sense of public ownership will evolve. This approach is not original. Indeed, it is the basic principle upon which most citizen engagement processes have been constructed, whereby awareness leads to interest and concern, interest and concern lead to engagement and collaboration leads to social consensus. What ConCensus, has, in the early stages of its development, addressed specifically, as opposed to other engagement methodologies, is the issue of policy continuity. If those stakeholders who have participated in the identification of the issue to be tackled and in the design of a solution are also instrumental in the implementation of said solution, be it a campaign, an initiative or a formally approved municipal policy, said action would no longer be associated with one political party or the management of the relevant utility. It would not be the property of one specific group but the vision of a far broader proportion of the local community as a whole. Furthermore, by offering lay volunteers the opportunity to participate in the execution of the project at hand, one would avoid the sense of disappointment, disaffection and mistrust which had resulted from many examples of the Agenda 21 initiative.

The question to be answered is what role a non-qualified lay person could play in the implementation of a possibly complex technical process. The answer is that of spokesperson and overseer. The volunteers would be encouraged to assume the role of disseminator not only to their local community but beyond. Ordinary citizens would become interlocutors on behalf of their community to higher governmental levels and third-party stakeholders beyond the frontiers of their municipality. Furthermore, as overseers of the initiatives' progress they would be able to hold the relevant administrative and technical entities to account and would a) impede future politically motivated intervention by newly elected members of a



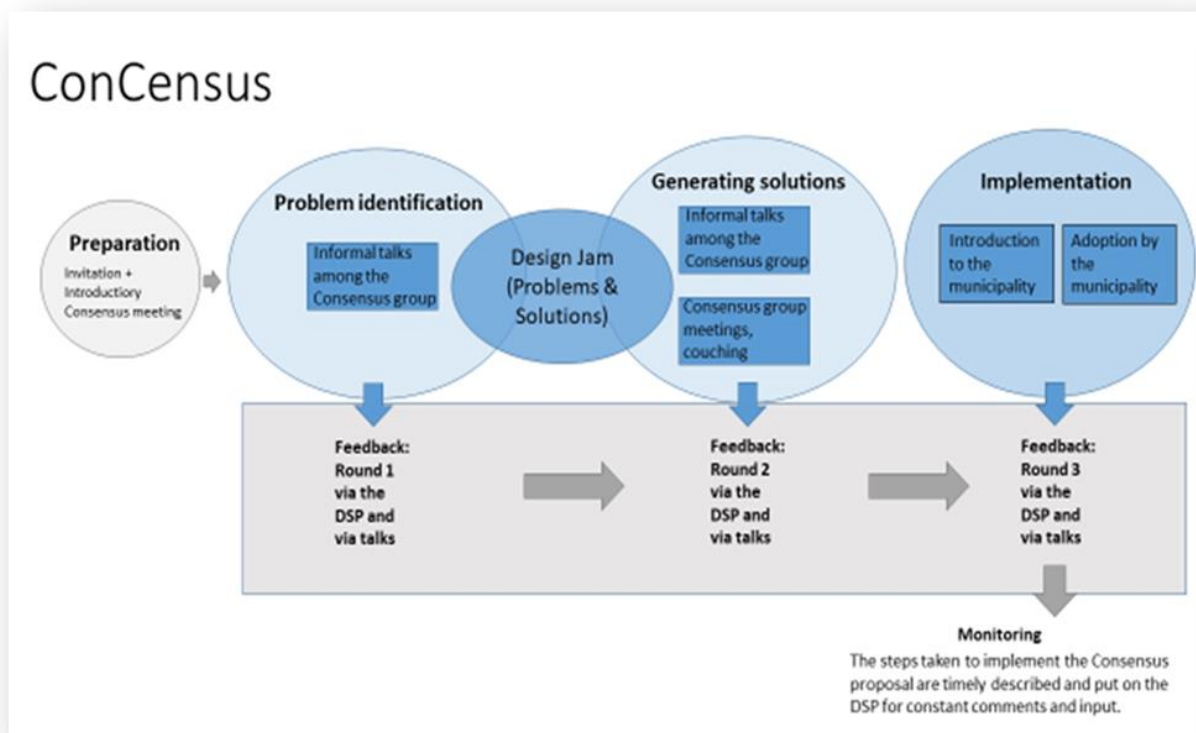
local government and subsequently b) enhance the possibility of guaranteeing the continuity of their initiative until it had been completed as originally planned, thus providing more attractive conditions for investment in terms of both staff hours and public funding. In short, it would represent a tangible, specific move from representative to open policy creation and execution and would thus promote public trust and third-party funders' confidence.

The theory has been put into practice in Los Angeles (USA) with the collaboration of the University of California (Irvine) and then, as part of the Horizon 2020 project 'POWER', in Jerusalem (IS), Ramallah (PAL), Milton Keynes (UK), Sabadell (ES) and Leicester (UK), subsequently in a number of cities as part of the FIWARE4WATER project and lastly as the approach applied by the United Nations World Water Quality Alliance, led by EURECAT.

Who needs to be there? Who is it for?

A ConCensus is a group of people from a village, town or city who want to participate in actions which will contribute to solving environmental problems. Everyone is welcome to join; young and old, local councillors, scientists, businesspeople, artists, nature lovers and citizens who are concerned about the future of the planet and want to do something about it at a local level. No qualifications are required. None whatsoever. Just a desire to participate. It is important that an effort is made to involve from the very beginning, the local and/or regional administrations and public utilities if that is considered necessary. IMPETUS should take care to involve representatives of all genders, age groups, income groups and ethnic minorities. All too often there is a danger, especially in Europe to have a group composed almost exclusively of middle-class professionals who do not represent the heterogenous complexion of a specific urban or rural community.

How?



- A) It is wise to first undertake a survey within the local community (this can be on-line) to discover the degree of awareness regarding the issue that IMPETUS wants to promote.
- B) The recruitment of volunteers. This should be undertaken in the case study site in collaboration with the local administration if that is possible. It is these entities which would have sufficient local knowledge and contacts in order to disseminate the fact that a ConCensus would be created in the municipality. A pamphlet must be created which explains extremely carefully what

would be expected of the volunteers. The name ConCensus should not be used. It just confuses people. A local name for the resulting entity should be created. A specific effort should be made to involve.

- C) A series of meetings discussing global and local issues with regards to the specific subject and the introduction to the volunteers of the suggestion to initially organise a campaign at a local level to increase public awareness about the subject. Such an action is proposed as it is politically innocuous and permits the creation of a group identity based on what cannot possibly be described as a controversial initiative.
- D) The volunteers examine the arguments in favour and against different forms of citizen awareness campaigns. This process lasts approximately one month with a frequency of one meeting a week, but it is important that the participants feel that they have sufficient time to develop their ideas own both in the meetings, in between meetings, alone or in tandem with fellow volunteers.
- E) A series of actions are agreed. Unanimity is impossible to achieve but the volunteers are expected to assume the responsibility with the support of the Town Council or the utility and the members of the IMPETUSD consortium, to implement the course of actions which the ConCensus members have devised and which have most convinced the majority. If however, the action requires expert technical implementation, the volunteers concentrate on explaining the action to the rest of their local community.
- F) The volunteers are encouraged to be spokespeople not only to the local population but beyond. They are encouraged to participate in conferences and workshops, supported by IMPETUS. Furthermore, they are expected to interact and create a permanent dialogue with other initiatives established in other municipalities.
- G) If a municipal government favours a more complex, technical action suggested by the ConCensus and it deems such an action as being sufficiently important that it be converted into an approved municipal policy, the volunteers are to assume the role of the non-technical overseers of the project. This is a step which tests to what extent local elected representatives and/or local utilities are prepared to involve ordinary, non-professional stakeholders in their activities. The role of overseeing or monitoring the progress of an action does not signify much more than being informed periodically by those professionals responsible, on details of the work completed. However, its significance is important. It recognises that the citizen should be informed and that explanations in the case of a failure to achieve a milestone by a specific date must be provided directly to the citizen. Just as importantly, it represents a significant obstacle to a newly formed government which attempts to silently brush aside initiatives that commenced under the mandate of their predecessors.

Where?

Face to face meetings may take place at any location considered adequate by the IMPETUS representatives. Before the outbreak of the COVID-19 pandemic, it was generally agreed that community engagement should involve both online and in-person methods. In 2007, Seong-Jae Min affirmed that '...both online and face-to-face deliberation can increase participants' issue knowledge, political efficacy, and willingness to participate in politics' (Min 2007). The combination of the two approaches permits the local community in question to enjoy more continuity in the discussions and debates that would arise from engaging citizens in whatever issue was being examined. Whereas face-to-face events offer people the opportunity to connect and perhaps build closer relationships, it is argued that online strategies allow more people to participate and provide greater flexibility with regards to when and for how long people create and describe their own ideas. However, the use of online technology may also prejudice low-income groups, the elderly and other minorities who may not be IT literate or have immediate access to IT, a circumstance described as the 'digital divide'. As the effects of COVID-



19 were quickly felt by society as a whole, the face-face versus on-line debate intensified especially with regards, for example, to education. Earlier in the century, there had been little empirical research investigating the effects of online interaction on public opinion. A number of studies had examined e-democracy, i.e., the use of internet with regards to political participation by analysing survey data, but it concentrated on mass interaction between anonymous individuals as opposed to specifically created working groups. Little work compared the effect of online methods with that of face-to-face engagement in more specific initiative-creating enterprises. There still does not exist a broad consensus as to which is best, bringing one to the conclusion that a combination of the two is still, and should be, the preferable option. The ConCensus methodology has been founded on a combination of 'online and face-to-face deliberation' employing Digital Social Platforms (DSPs). Should COVID-19 or any form of subsequent pandemic affect the progress of IMPETUS, the exclusive use of platforms such as Zoom, Teams and the broader more public channels of communication such as LinkedIn, Facebook and Instagram, can be employed for Quintuple Helix engagement and produce extremely satisfactory results.

Pros:

ConCensus is a proven methodology that does permit collaboration and co-creation with citizens. It enables decision making and trust building in that it includes the volunteer in the entire decision-making process through implementation and even post-implementation analysis. It is also being observed that by fully engaging the citizen, it is creating a new and more durable means of recruiting truly knowledgeable and enthusiastic citizen scientists. The process is simple and above all flexible capable of adapting to local social, political and behavioural idiosyncrasies. One can satisfy the demand of citizens to be involved in policy creation and to remain engaged during the full life cycle of a subsequently approved project. An individual's initial enthusiasm, interest and concern does not transform into disappointment as a citizen who has participated in the imagining of a solution is reduced to the role of mere spectator as the political and technical stakeholders withdraw to their offices in order to implement or not the plan that had initially been publicly generated.

Cons:

As has been described above, participants have been observed to collaborate in public engagement processes as a means of advocating their own interests or the interests of a particular political party. But the principal problem to be overcome by ConCensus or indeed any valid citizen engagement process with a strong political component is the attitude of the officially elected representatives in the community in question. Much depends on the willingness of the individual politician or utility manager to embrace a more open form of decision-making to be truly successful. ConCensus in many cities has certainly benefitted from the extremely active participation and support of both the mayor and local councillors. Some politicians would perceive this example of open government as a means of guaranteeing that policies developed under their mandate will have more opportunity to be given continuity. This in turn allows them, cynically, to appear to be more 'democratic' and more importantly from a societal and environmental perspective, permits the creation of long-term visions rather than strategies which are obliged to yield results before the next elections. But others, perhaps more influenced by political party interests, will still refrain from delegating responsibility to the local Quintuple Helix. It is true that ConCensus can exist without local political support, but from a legislative perspective they become inoperable and will only function as a pressure group.

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Annex 2: Stakeholder Feedback Form

IMPETUS Stakeholder Engagement Feedback Form

Thank you for your collaboration! It was a pleasure to have your participation in this IMPETUS project activity. With this survey, we would like to know your opinion about the activity and whether it met your expectations, so that we can improve our future events. Giving us your feedback should only take around 6 minutes of your time.

1. Please enter your name (optional)
2. Your organization (optional)
3. Email Address (optional)
4. What was the date of the activity?
 - a. Date and Time

Meeting logistics

5. To what extent do you agree with each of the following statements? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, not applicable)
 - a. I received the information about the meeting and all relevant materials far enough in advance.
 - b. The objectives of the event were clearly defined and appropriate.
 - c. The meeting was of the right duration and format, given the defined objectives.
 - d. The meeting was well organized and delivered.
 - e. My expectations about the event and its outcomes were met.
 - f. Comments / Optional

Stakeholder Engagement General

6. To what extent do you agree with each of the following statements? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, not applicable)
 - a. During the meeting I improved or made new connections with other participants.
 - b. The presentations and speakers were interesting, clear and understandable.
 - c. During the meeting, I felt I could share my thoughts and ideas openly.
 - d. I felt that others were communicating openly and transparently.
 - e. All ideas / perspectives were included and respected during the discussion.
 - f. Differences and (potential) conflicts among participants were addressed in a constructive manner.
 - g. The meeting / event had a culture of openness, learning, sharing and listening.
 - h. Comments / Optional

Stakeholder Co-Creation

7. To what extent do you agree with each of the following statements? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, not applicable)
 - a. I had sufficient opportunities to provide input to the activity / discussion.
 - b. I believe that all relevant stakeholders were present at the meeting.
 - c. I feel that the right topics were discussed during the meeting.
 - d. I feel that the topics were discussed in the right ways during the meeting.
 - d. I have a better understanding of the perspective of other stakeholders as a result of this meeting.
 - e. The way the discussion was facilitated and moderated supported the meeting objectives, discussions and knowledge co-creation.
 - f. Comments / Optional

Outcomes and conclusions

8. To what extent do you agree with each of the following statements? (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, not applicable)



- a. There was enough time to reflect on our collective experience and functioning as a group.
- b. I believe that clear summary, conclusions and follow up actions were formulated by the end of the meeting.
- c. When we had to make group decisions, participants were understanding of the different perspectives, flexible to “work around” barriers, and open to adjusting to challenges.
- d. The meeting inspired me to take follow-up actions in my own organization / work / community.
- e. Participating in the meeting increased my knowledge about climate change challenges, solutions and opportunities locally.
- f. I am aware of the contributions I and other participants can make to the IMPETUS project goals.
- g. Comments / Optional

Pros and cons of meeting

9. What is your overall rating of the activity / meeting / workshop
 - a. Extremely valuable
 - b. Very valuable
 - c. Somewhat valuable
 - d. Not so valuable
 - e. Not at all valuable
 - f. Comments (optional)

10. Which aspects of the meeting were most interesting / useful to you? Select all that apply
 - g. Interacting, learning and sharing with the other stakeholders.
 - h. The meeting content, topics and associated discussions.
 - i. The presentations from the meeting organizers.
 - j. Can include others based on the specific event/activity of the DS – DS to communicate these to Lisa to input into the survey
 - k. Other (please specify)

11. What is your key take-home message from this meeting?

12. Which topics (new / from this meeting) would you like us to address / develop further in future meetings?

13. In what specific ways could this meeting have been improved and do you have any suggestions?

14. What general suggestions for improvement do you have for future activities/meetings?

Thank you for your feedback!
We will take all your comments into consideration when planning future events and activities in our IMPETUS project Demo Site.



Annex 3: Engagement Activity Report Form

Download [Word template](#) from IMPETUS SharePoint

Engagement Activity Report

The Engagement Activity Organiser is responsible for preparing and sharing an Engagement Activity Report after each IMPETUS Demo Site stakeholder engagement activity.

Overview of stakeholders

This needs to be in the Engagement Activity Report but can be copy pasted from the Engagement Activity Planning Document

Objectives

- Describe the meeting objectives as communicated to the participants before / during the event
- These can be taken from the Meeting / Planning Document and adjusted as needed

Title of Meeting (key topic):

Take from the Meeting Planning Document

- Organizing partner(s):
- Moderator/Facilitator(s):
- Meeting venue & location:
- Meeting date & times:

Agenda

- Please insert the agenda from your meeting
- Please, include all presentation titles given at the meeting here in the agenda with the name of the presenter and their affiliations and hyperlink the files as stored in the IMPETUS SharePoint folders.

The table below is a summary of your participants from the *Engagement Activity Planning Document* and shows the sectors that participating stakeholders are part of, the number of participants from each sector, and the functions within their organisations as represented by these stakeholders.

Quintuple Stakeholder Group	Helix	Number of Stakeholders per group	of Stakeholder Function (Ex. CEO, Researcher, Manager, etc.)	Gender Analysis (F/M/Non-Binary)
Academic System				
Industry and Economic System				
State, government and political System				
Uninformed Citizens, Media and Culture (Media-based and culture based public)				



Totals	(Total # of SHs)		(Total # of F, M, NB)
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Main achievements

1 sentence ('headline') summarising the key message about the meeting / achievements	
1 short paragraph (max. 5 sentences or bullet points in descending order of significance) briefly summarising the main meeting interest points / outcomes / achievements / agreements	
Expand on any of the above summary points in a little more detail, if/as appropriate	
Summarise the perspectives of the stakeholders (i.e. quotes from what they said during/about the event, stories as anecdotal evidence, good feelings, bad feelings, etc.).	

Next Steps

If any action items were agreed for the DS and/or actions stakeholders to follow up on, list them here:

Action title / description	Purpose of action	Responsible person / organisation	Deadline / time-frame

Reflection notes

POINTS TO CONSIDER		YOUR COMMENTS
Describe your observations of stakeholder engagement at this event:	Were all the right stakeholders present? Were other stakeholders suggested by those present? Do we need to include other stakeholders in future?	
	Were all stakeholders listened to? Were some stakeholders more vocal than others?	



	<p>If there are any major challenges in collaborating with these stakeholders / them collaborating together (e.g. conflict, lack of trust, need for relationship building, some stakeholders didn't show up, etc.), describe these challenges.</p>	
	<p>Do you think that the stakeholders understood the IMPETUS project, the DS activities, the goals and intentions? Were the presentations, other content and/or discussions understood? Was there any confusion over what was communicated? Please describe.</p>	
<p>Further reflections on the stakeholder engagement process:</p>	<p>How are the discussions and inputs from stakeholders influencing the trajectory of the DS Theory of Change and the project tasks?</p>	
	<p>Which assumptions in the ToC do you need to change as a result of the inputs from these stakeholders?</p>	
	<p>What do you foresee as challenges in accomplishing the objectives stated in the ToC, as a result of these discussions with these stakeholders?</p>	
	<p>What suggestions for improvement do you have for future DS workshops / activities in terms of SH engagement methods and techniques?</p>	
<p>Reflections on communications aspects:</p>	<p>Was the purpose, nature and intended outcome of the event clearly communicated to the right stakeholders at the invitation stage and at the start of the event?</p>	
	<p>Did the materials and messages that were conveyed during the event help to meet the communication objectives in a clear and appropriate way?</p>	
	<p>Have you identified any potential project messages</p>	

	emerging from this event that you should/have share/d with your DS team communications colleagues for local language news/social media and/or with WP7 (ld@esci.eu) for wider dissemination (in English)?	
	Have you identified any ways in which communications about / during / in follow up to this event can provide lessons learned for improvements to following activities?	

Provide a list of (named and/or linked) channels actually used to disseminate communications content e.g and related statistics as possible:

NAME	TAGS / DISTRIBUTION	LINK TO CONTENT	STATS
e.g. IMPETUS Twitter account	E.g. @EUClimateAction, @UNSDSN, @HorizonEU, @UiTNorgesarktis	https://twitter.com/ClimateImpetus/status/1571778135330283521	E.g. Likes: 5 Shares: 4 Impressions: 469 Engagements 19
e.g. REGILIENCE March 2022 newsletter	E.g. 100 subscribers	https://mailchi.mp/5253d867b18b/welcome-to-the-first-regilience-newsletter	E.g. 5 click-throughs from newsletter to full article
e.g. IMPETUS LinkedIn account	#MissionClimate #landuse, #water, @CINEA, @Sustainable Development Solutions Network	https://www.linkedin.com/feed/update/urn:li:activity:6978013266924965888/	E.g. impressions 232 Engagement rate 8.6% Shares 3

Annex 4: Consent Form

The clickable, translatable, brandable [checklist and explainer document](#) are available for download from SharePoint: [IMPETUS-participant-personal-data-consent-form](#).



Personal Data Consent Form

Introduction

Title of Project: IMPETUS: Dynamic Information Management Approach for the Implementation of Climate Resilient Adaptation Packages in European Regions

To help accelerate Europe's climate adaptation strategy and meet the European Union's ambitions to become the world's first climate-neutral continent by 2050, IMPETUS was launched in October 2021. Its objective: turn climate commitments into tangible, urgent actions to protect communities and the planet. With 32 partner organisations based in 9 European countries, IMPETUS is working with local citizens, policy makers and businesses around 7 European demonstration sites to test and analyse solutions, boost knowledge, and create packages of adaptation measures that provide a pathway towards a climate-neutral and sustainable future.

In conducting this work, IMPETUS partner organisations need to collect, store and manage personal data – including photographs and audiovisual content – from people who participate in project events or other activities. This allows us to analyse and evaluate our activities and results and to disseminate news and knowledge learned. Your participation and consent for us to use your data therefore supports IMPETUS work.

Thank you for supporting IMPETUS!

The IMPETUS partners take your privacy very seriously. Your data will only be collected, used, retained, disclosed, transferred and secured in accordance with applicable data protection law. We kindly request you to complete and sign this form regarding your consent for us to use and save your personal data.

The IMPETUS partner that will collect and store your personal data in conjunction with the occasion reason named below and use it for project purposes is:

- Partner organisation name: [Website URL](#)
Partner organisation name Privacy Policy and contact information (in English): [Privacy Policy URL](#)

The person from this organisation who is collecting your data on behalf of IMPETUS is:

[\[First Name / Last Name, Job title\]](#)

The reason / occasion for collecting your data is: [\[purpose description, e.g. participation in IMPETUS Event Name on Date\]](#).

The above named IMPETUS partner will also need to store your personal data in the project Sharepoint folder system and so share it with other IMPETUS partners (<https://climate-impetus.eu/about/#partners>) so that they can also use it for their areas of the project work (analysis, reporting, news and information dissemination, promotion of results and events etc.). This Sharepoint system is managed by:

- Eurecat Technology Centre of Catalonia: <https://eurecat.org/en/>
Eurecat Privacy Policy and contact information (in English): <https://eurecat.org/en/privacy-policy/>

PLEASE READ THE ABOVE-NAMED PRIVACY POLICIES BEFORE COMPLETING THIS FORM.

NOTE: In accordance with the [EU General Data Protection Regulation](#), you have the right at any time to access, rectify or delete your collected personal data. If you wish to exercise these rights or have any other questions about the data collected, please contact the data controller organisations as per the details above.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101037084.



IMPETUS consent form

IMPETUS

Consent Form

Please confirm whether or not you agree with the following statements by checking the respective boxes.

1. I confirm that I have agreed to participate in the above-named IMPETUS project activity and clearly understand the purposes of this meeting / interview / event / activity. Yes No
2. I confirm that I have read and understood the [partner organisation name] privacy policy and that I give my consent to [partner organisation name] to keep and use my data in line with this policy for IMPETUS project purposes. Yes No
3. I consent to [Partner organisation name] creating, storing, processing and publishing images / videos / audio recordings of me on the occasion in question and using them in printed and / or digital form in any analysis, internal project reporting, project deliverables, external project news and communications materials or in potential publishing of conference/journal papers, and dissemination via IMPETUS and its partners' social media, websites, newsletters and various other dissemination channels. Yes No
4. I consent to [Partner organisation name] sharing my personal data, including any images / videos/ audio recordings of me from the occasion in question with other IMPETUS partners (as named and linked here: <https://climate-impetus.eu/about/#partners>) for the purpose of project activities such as analysis, reporting, project deliverables, news, communications and dissemination, through the project Sharepoint platform managed by Eurecat Technology Centre of Catalonia. Yes No
5. I confirm that I have read and understood the [Eurecat privacy policy](#) and that I give my consent to Eurecat to keep and use my data in the shared project folder system in line with this policy for IMPETUS project purposes. Yes No
6. I consent to my personal data being securely stored and retained for two years after the completion of the project (October 2025), before ultimately being deleted by the named project partners that collected this data from me. Yes No
7. I consent to verbatim quotations from me during the occasion in question being used in works of analysis, internal project reporting, project deliverables, project news and communications materials, or in potential publishing of conference/journal papers, after my review and approval. Yes No
8. I understand that I am not obliged to participate in the IMPETUS project; my participation in project activities and my consent regarding my personal data are fully voluntary and can be revoked at any time without the need to justify my decision. Yes No
9. I understand that if I ask IMPETUS partners to stop using my images or quotes at any time, these will not be included in any future publications but may continue to appear in publications already in circulation. Yes No
10. I confirm that I have read and understood all the above and have been given adequate time to consider my participation. Yes No

Date (dd/mm/yyyy): Name (First name, Last name): Email:



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101037084.



Annex 5: DS Engagement Activity and Communications Checklist

This [checklist is available for download](#) from SharePoint. The below checklist is adapted from the stakeholder engagement work done in the EU projects ULTIMATE, B-WaterSmart and Water Mining (Andrews et al., 2021; Mansilla et al., 2021; Rebelo et al., 2021)

Below is an engagement activity checklist that can be used to support the planning of meetings, workshops and any other type of events, as well as related communications. Use this checklist before each of your engagement activities. The checklist provides examples of best practices.

Before the engagement

- 1. **Define roles and responsibilities of the meeting moderator / facilitator** and stakeholders as soon as possible: i.e. who will manage the logistics, who will facilitate the meeting, what roles should stakeholders have, if any? Define who will act as reporter and who will take notes to be included in the Meeting Report.
- 2. **Send out emails** or other communication type (e.g. phone call) with:
 - a. **A message of invitation that provides the project context of the activity and motivates stakeholders to participate**, explaining the objectives of the project and this engagement, the desired outcomes and how stakeholders add value by participating. You can use parts of the Engagement Activity Planning Document for this purpose, see Section 3. Template on SharePoint.
 - b. **A ‘save the date’ / agenda invitation for their email / online calendar**, with clear information about dates, locations, time and duration of the engagement.
 - c. **Any important / relevant documents such as the meeting agenda**, as well as information about any ‘homework’ that stakeholders may need to prepare in advance.
 - d. **A request for agenda inputs / feedback from the stakeholders, or a simple ‘survey’ about their expectations**, to better understand / match their needs in any final adjustments to the meeting / workshop (as necessary / relevant).
 - e. **Any relevant contact information and the project website URL** (<https://climate-impetus.eu/>)

During the engagement

- 3. **Ensure that everyone feels welcome and able to share** in a safe space to become engaged (consider languages, backgrounds, culture, personalities) – make sure there are balanced opportunities for all to engage in their own preferred way through the different meeting activities and moderation techniques (e.g. individual reflection vs. group discussion).
- 4. **Ask the participants to fill in the translated consent form** (See Section 4, Annex 4 and [SharePoint](#)). In case of an online meeting, remind the participants that you may record the meeting and make screenshots. At a face-to-face event, remind them that photos and videos may be created. In both kinds of meetings, you may also wish to ‘harvest’ any interesting comments that could be followed up e.g. as an approved quote in a project news article about the event. These points are covered in the consent form along with other bullets. Explain that they can choose whether or not to give consent for their own image to be included and how they can avoid being recorded / photographed if they prefer. All completed forms should be uploaded to SharePoint as described in section 4 of this document.



5. **Enable trust, maximize transparency and mutual understanding, and facilitate ongoing reflection** by embracing an intentional learning approach in your planned activities, and by creating an environment that enables informal and open discourse and dialogue (Koti, Hein, Frijns, Urioc, & Damman, 2017).



6. **Think out of the box – engage people in new ways with activities and engagement tools** (See examples in sections 3.1 and 3.2) – this will enable more interaction, participation, attention, and recall of the meeting and its objectives and so help carry forward activities and actions.
7. **Keep the stakeholders in mind** during the meeting / activity as well as in its design phase, i.e. following a user-centric approach. This means knowing your stakeholders well, planning activities and discussions of relevance, and ensuring this relevance to the stakeholders stays a clear ‘thread’ running through the occasion.

End of the engagement

8. **Set actions to be followed up** and note them down in the Meeting Report (See Annex 3). Consider that actions should be taken in between meetings and followed up in order to build trust and transparency with the SHs.
9. **Whether in person, or online, move through the following elements:**
- a. **Reflect for 5-10 minutes** with the whole group including moderator and participants on how they perceived the meeting (positive, negative, neutral, whether it met the defined objectives, what aspect was most useful / interesting to them, etc.). These notes can then be transcribed into the Meeting Report Form (See Annex 3).
 - b. **Get Stakeholder feedback via the prepared form (See Annex 2)** using time reserved in the agenda for this purpose. To encourage everyone to fill in the form and to get the highest possible response rate, explain how the feedback will help to improve future activities and why it is needed. WP1 will have sent you the feedback form in English for you to translate into your local language and input into SurveyMonkey to create the online version. This is the version that should be provided to the participants.
 - c. **Collect and address any requests for further information** about the event, the topics covered, the project or related matters.
 - d. **Provide any relevant contact information** as needed.
 - e. **Remind stakeholders about following, liking, sharing and tagging the IMPETUS social media accounts**

*This information (9a-e) can be shared via the PowerPoint slides or via the chat during an online meeting.



After the engagement

- 10. **Fill out the Meeting Report Template** (see Annex 3) while the activity is still fresh in your mind and upload the report as soon as possible to the respective SharePoint folder so that any project news articles or other external communications about / arising from the event can be followed up by WP7 and DS communications colleagues in a timely way. Ideally, this should be completed within 2 days of the end of the engagement.

- 11. **Create and send a summary email** to all SHs who joined in the engagement activity, with:
 - a. **A message of appreciation for their participation** and why it was of value to the DS team / project.
 - b. **A short reminder of any key topics / discussion points / agreements**, next steps and action items
 - c. **Meeting Minutes** (linked to a file on a shared drive or as an attachment)
 - d. **A reminder for feedback** from anyone who did not yet complete the online form (linked).
 - e. **A reminder about / link to any upcoming / published news, photos or other content** related to the event, ensuring that specific (quotes) approvals are secured.
 - f. **A reminder about the project website and social media accounts:** asking them to follow, like, comment, share and tag.
 - g. **Any relevant contacts and information about when stakeholders can next expect to hear more** from the DS team / about this topic or activity.

