



Nature's integration in cities'
hydrologies, ecologies and societies

D5.1 NICHES Stakeholder Engagement Strategy

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Executive summary

This report is Deliverable D5.1 'Stakeholder Engagement Strategy' and outlines the NICHES strategy for engaging stakeholders across its five case study cities, in light of their key role in implementing the project. NICHES recognises the need for sensitivity to varied perceptions and preferences, cultural traditions, gender roles, access to power, and societal and political structures across the case study areas and is fully committed to achieving an inclusive participation within the multiple levels of collaboration and co-production. The strategy thus aims to provide a centralised approach and guidelines for NICHES partners to manage and engage with local stakeholders, not least through the facilitation of co-design arenas. Personal data will be processed in accordance with General Data Protection Regulation (GDPR) rules, as described in the NICHES Data Management Plan (DMP).

A four-step approach is outlined, including guidelines for: i) stakeholder mapping ii) design of an engagement plan, iii) preparation work and engagement pathways, iv) review and assessment of success. In order to ensure NICHES complies with the privacy policy and ethics in personal data management, the strategy also includes standardised rules for identifying, contacting and engaging with stakeholders.

NICHES: Project background

Increased stormwater runoff in urban areas, as a consequence of climate change-induced heavy rainfall events, pose critical threats to aquatic biodiversity. Specifically, combined drainage systems which transport wastewater, stormwater and urban water together can flood after heavy rainfall, causing a discharge of wastewater and contaminated runoff directly into rivers, streams or other nearby water bodies.

The NICHES project ('Nature's integration into cities' hydrologies, ecologies, and societies') recognises this threat and aims to showcase the potential of nature-based solutions (NBS) to mitigate the negative impacts of such combined sewage overflow events on society and the environment. NBS, such as riverbank restoration, sustainable urban drainage systems, and the regeneration of urban green belts, can act as an alternative to the cost-intensive renewal of wastewater systems and as a supplementary element to existing stormwater management systems.

Despite this potential, the use of NBS for urban water management remains limited. This is in part due to low awareness among key stakeholder groups. To build awareness and support, there is a need to gather evidence, demonstrate practical approaches and provide targeted guidance to decision-makers, practitioners and other relevant groups. NICHES aims to bridge this gap by defining a holistic framework for understanding the social, ecological and technical aspects of applying restorative NBS for urban runoff mitigation and the resultant benefits for aquatic systems. Using five global cities as co-design arenas, the project will support the development of recommendations for integrating NBS in urban policies.

1. Introduction

1.1. The project

NICHES takes a city-centric approach and focuses on five cities - Berlin (Germany), Barcelona (Spain), Rotterdam (the Netherlands), Sheffield (UK), and Boston (USA). Engagement with stakeholders at the city level is of primary importance for the success of the project, including for understanding and responding to the specific needs in each city. This will enable the development of effective solutions using the NICHES co-design approach. By co-developing, testing, and evaluating the models, tools, and governance frameworks within the project, NICHES will ensure that solutions are aligned with stakeholders' needs and interests.

NICHES incorporates a three-tier-based approach in its work plan (Fig. 1) to engage the case study cities to different degrees across the project activities. The approach entails the co-development and comprehensive application of key WP methods across three core cities (Barcelona, Rotterdam, Boston) in tier 1; an in-depth application of select methods in peripheral cities (Berlin, Sheffield) in tier 2; and a refinement, validation and extraction of lessons learnt across all five NICHES cities in tier 3. The overarching aim is to foster the upscaling and wider application of the project tools, results, and solutions beyond the NICHES case study cities.

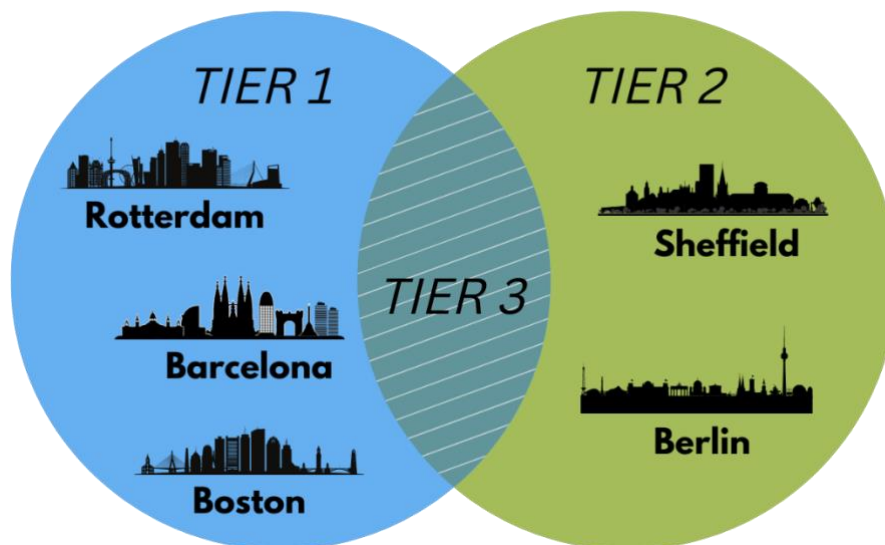


Fig. 1. NICHES 3-tier approach to involving the case study cities.

The co-creation arenas being developed across the case study cities as part of Task 5.1 *Co-design arenas and exchange mechanism*, led by Ecologic Institute, are interactive multi-stakeholder arenas for developing, testing, and evaluating appropriate tools for the project's work packages. The arenas – guided by this Strategy - will allow for centralised planning and the identification of synergies, bringing value for the NICHES processes and products and ensuring a productive and synchronised way of work. Task 5.1 is also responsible for steering the stakeholder engagement process through surveys or requests prepared by respective tasks and will be implemented by the city coordinators (local consortium partners) with input

from the local stakeholders. These surveys will follow a centralised template. More details on the co-creation activities foreseen in the project are outlined in Section 4.1.

1.2. Aims

By engaging with the project, the stakeholders in the target cities will benefit from access to state-of-the-art science and expertise in NBS, a novel and potentially ground-breaking approach to dealing with water management challenges at city level.

According to previous engagement and cooperation with the NICHES case study cities by the project partners, stakeholders around combined sewer overflows are assumed to be interested in new, cost-effective, and climate-conscious approaches for tackling negative impacts. Within the context of NICHES, we aim to address these interests by exploring the potential of NBS as a sustainable solution.

Following these interests, NICHES aims to enable the stakeholders to achieve the following through their involvement in and engagement with the project:

- Gain access to current scientific results and experts in the fields of NBS and urban water management infrastructure
- Exchange knowledge and experiences with partner cities on challenges and solutions around combined sewage overflow and NBS implementation
- Receive support for more evidence-based decision-making and the co-creation of pathways to achieve water management objectives
- Gain a more integral vision of the ecosystem services of surface waters in cities;
- Co-create solutions for climate robust urban water management
- Gain environmental literacy on urban water quality management under ECEs

1.3. Plan & objectives

This strategy is built in four steps suggested to be adapted to suit the needs of each NICHES case study city. This will help the project partners identify their stakeholders, cluster them in engagement groups, plan an effective engagement approach and prepare for its implementation, and finally take regular stock of progress and adjust the strategy and engagement process accordingly. The four steps are outlined below and presented in Figure 2.

Step 1: Stakeholder mapping, prioritisation and clustering: identifying the main stakeholders and their sectors and analysing how they can be best prioritised in light of the task at hand and according to the planned project communication tools for engagement.

Step 2: Design of a stakeholder engagement plan: identifying the aim, methods and channels of engagement with stakeholders, including the roles of the NICHES partners (who does what and with whom).

Step 3: Preparation and engagement: defining the stakeholder specific schedules of engagement, making the first contact and keeping track of feedback.

Step 4: Review and assessment: collecting data from the overall engagement process and assessing to what extent it has been successful and the desired result was achieved.

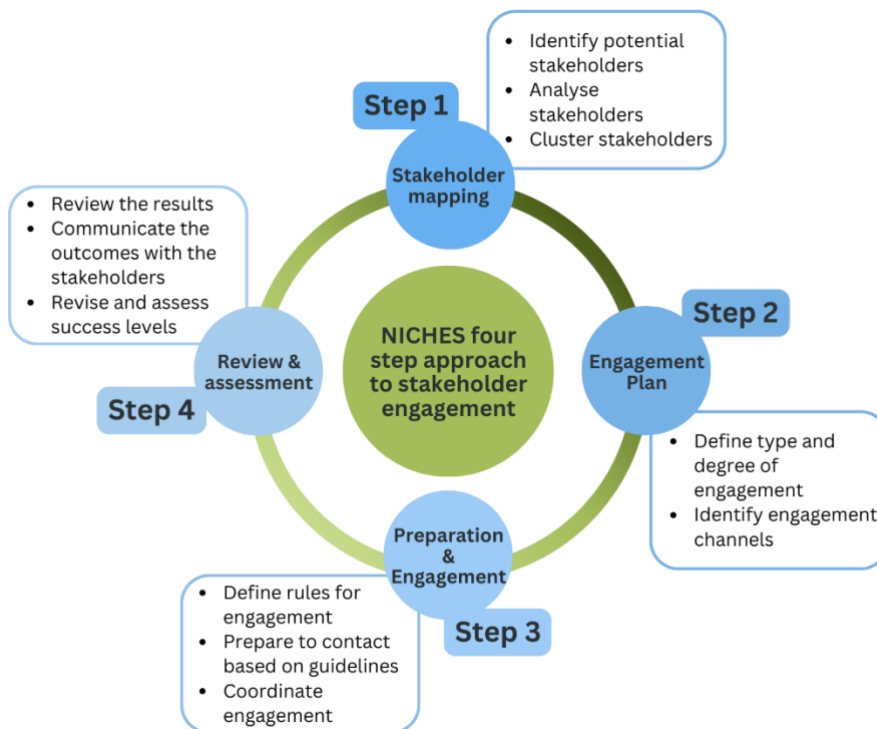


Fig. 2. NICHERS four-step approach to comprehensive stakeholder engagement

The NICHERS local scientific partners have extensive experience in working and engaging with stakeholders in their respective cities. They will build on established relationships with key city policy makers, expert communities, and other targeted stakeholder groups in the NICHERS cities as well as be provided with tailored approaches on how to identify and engage with new stakeholders. This stakeholder engagement strategy is developed on the basis of a stakeholder mapping exercise, already completed for the five case study cities - Berlin, Rotterdam, Barcelona, Sheffield and Boston.

2. Step 1: Stakeholder mapping and analysis

Stakeholder mapping the basis for future engagement. It aims at understanding who the key stakeholders are, what their expertise is, and how they can contribute to the project. NICHEs takes three iterative steps (Fig. 3) to map stakeholders:

- Compile a contact database of the relevant stakeholders identified by the project partners at each of the five cities
- Analysis of the stakeholders' interest and influence on the issues in focus of the project and, clustering them into priority groups for engagement
- Expanding the initial circle of contacts by gathering feedback from stakeholders already contacted to add new suggestions (snowballing)

In the context of NICHEs, the stakeholder mapping entails the identification of external actors who can play a role in the project's co-creation processes and co-design arenas. Stakeholders can act as multipliers, supporters for upscaling or generating increased buy-in of results. Periodically reassessing the stakeholders leads to a more streamlined engagement strategy and will ensure high quality input from stakeholders within the co-design arenas and beyond.

The analysis of stakeholder power and influence leads to the identification and subsequent categorisation of every city's context-specific stakeholders, which corresponds to distinct engagement approaches (See 3. Step 3: Preparation and engagement).

As shown on Figure 3, the stakeholder mapping is a three-step process:

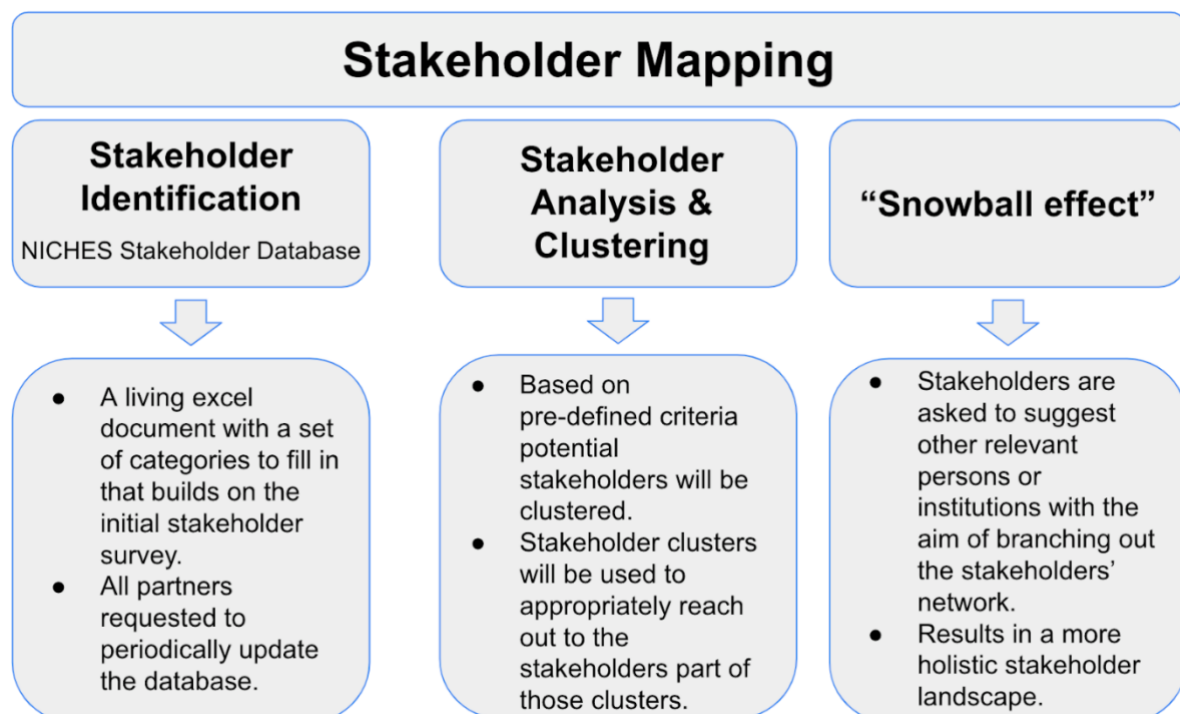


Fig. 3. The NICHEs stakeholder mapping follows a three-step approach

2.1. Identification of stakeholders

Stakeholder mapping should be undertaken for each of the five cities of NICHES. The project partners acting as contact points for each of the cities are asked to fill in a detailed series of questions listing the stakeholders relevant to their project objectives and plans for their city.

The process begins with listing the name of the stakeholder together with any contact information they may have (email address, institution or organisation, etc.) followed by identification of the category they adhere to (e.g., academia, government, sectoral practitioners, civil society, etc.) and a more specific subcategory (social scientists, NBS practitioners, city council, etc.).

After this initial stage, a more analytical approach about each stakeholder is necessary. Establishing the level of stakeholder authority together with the scale of their potential involvement (i.e., local, regional, national, international) will help during the power analysis, prioritisation and clustering. This step is followed by indicating the desired level of engagement, which is the basis of the clustering exercise in the next section. The final step of the mapping is for determining the aim of engagement in light of the tasks each NICHES city is involved in as well as specifying if an established relationship between the city and the stakeholder exists, which dictates the steps in the preparation and engagement part of the process.

See Figure 4 for a summary of what data should be collected for each stakeholder.

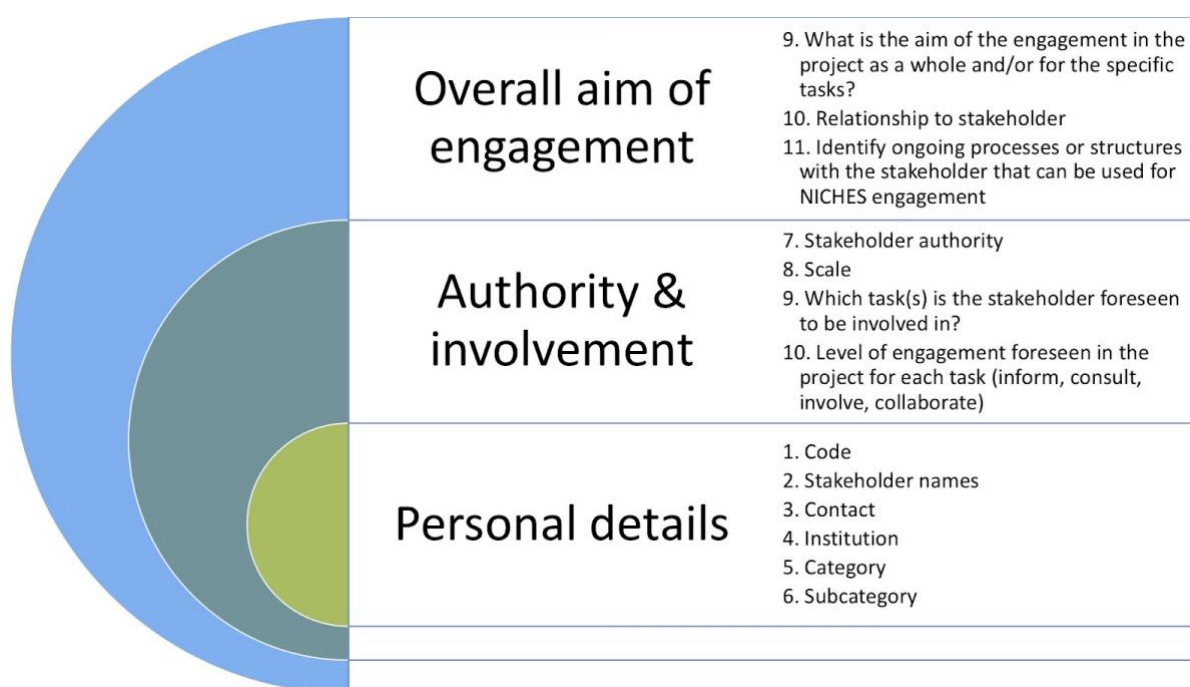


Fig. 4. The data necessary to conduct successful stakeholder mapping. This is the basis for the next step - stakeholder analysis and clustering

The different stakeholder categories and subcategories for NICHES defined in the survey (Figure 5).

NICHES target groups & stakeholders					
Academia (research and education) <ul style="list-style-type: none"> • Social scientists • Ecologists • Hydrologists • Hydro engineers • Economists • Urbanists • Chemists • Biologists 	Government & Public Authorities <ul style="list-style-type: none"> • City or intra-city mayors • City council • Environmental agencies • Water management authorities • Environmental ministries • Public work ministries • Ministries/agencies dealing with disaster risk reduction • DG Regio, DG Environment, DG Clima 	Sectoral Professionals (practitioners) <ul style="list-style-type: none"> • NBS practitioners • Landscape & urban planners • Architects • Hydro-engineers • Nature conservation experts • Health technicians • Water management technicians 	Business & Economy <ul style="list-style-type: none"> • Water utility companies • Private landowners • Construction companies • Port authorities (where relevant) 	Media & general public <ul style="list-style-type: none"> • Science journalists • Clients of water utilities 	Civil Society <ul style="list-style-type: none"> • Environmental NGOs • Civil activists • Community groups/neighbourhood organisations • Land/water stewardship associations

Fig. 5. NICHES categories and subcategories of stakeholders

2.1.1. Stakeholder database

The stakeholder database is an online internal living document that gathers information about the stakeholders in a centralised way. It is based on the stakeholder engagement [survey](#) that NICHES partners have already completed. The structure can be adapted to the needs and future maintenance of the lists which will allow the project partners to keep track of stakeholders they currently are engaging or intend to reach out to. This document contains separate sheets for each city. The stakeholder database will be centrally stored on NICHES One Drive, but not publicly sharable due to GDPR. However, we will ask for conformed consent at stakeholder engagement activities to share participant lists (and potentially contacts, if mutually agreed/desired), which will also support the inter-city networking of NICHES stakeholders.

See an example of this table document in the annex.

- A living .xls file developed with the predefined categories and criteria for mapping.
- A sheet within the .xls file with instructions on how to use the database.
- All NICHES partners are asked to fill in potential stakeholders in the spreadsheet file corresponding to their case-study city.
- The information in this spreadsheet includes information about stakeholders' personal details, their level of authority and desired/expected involvement in the project, as well as the overall aim of engagement in terms of their value for NICHES tasks and/or co-created products.
- Further categories can be added to each city-specific sheet of the document based on the needs of work packages and in close collaboration with the NICHES consortium.

2.2. Stakeholder analysis and clustering

In order to have a better understanding of the role, position and plan of engagement with the identified stakeholders, the data stored in the NICHES stakeholder database will be used to analyse, cluster, and prioritise stakeholders, which will determine the communication and engagement strategy used for each category. Among others, results of the stakeholder analysis will be used to:

- Prioritise stakeholders according to their position of power and influence relative to the successful attainment of the project objectives
- Lead further streamlined stakeholder recruitment efforts
- Monitor participation of the stakeholders in order to get an overview of overall stakeholder participation
- Identify and target the stakeholder groups appropriate for each task or subtask of the project where relevant; this will be done in close collaboration with WP or task leaders
- Use the stakeholder categories to develop efficient communication strategy and targeted messaging for the different stakeholder groups
- Distinguish between the different levels at which stakeholders operate (i.e. regional, national, multinational, and global actors)
- Identify the appropriate approach for developing the NICHES co-design arenas

2.2.1. Levels of engagement with stakeholders

To assess stakeholders' level of influence in the success of the project, the identified stakeholders will be clustered according to their potential influence in the project and interest in the topic using four levels of engagement: inform, consult, involve, collaborate. The following criteria can be used to specify the level of influence and interest:

- **Influence:** role in international/national/regional decision-making process, dissemination ability and potential to reach out to key individual stakeholders, ability to shape the discourse and generate action.
- **Interest:** relevance of stakeholder to the topic and likeliness to engage and vice versa.

The results of this analysis can be visualised in an influence/interest diagram (Figure 6). The diagram will be used to determine the category in which the identified stakeholders fall under and ascertain the engagement channels based on that.



Fig. 6. Plotting stakeholder influence against interest. Stakeholders are assigned to a category according to their likely contribution and interest in the project. The boxes provide details of the levels of engagement. Source: Biodiversa+ Stakeholder Engagement Handbook.

The following four terms each represent a ‘level’ of engagement’, from the lowest level (‘**inform**’), through the middle levels (‘**consult**’, and ‘**involve**’) to the highest level (‘**collaborate**’):

- ‘**Inform**’ - stakeholders who have **low interest in or influence** over research outcomes and can be simply notified about project aims and progress.

Engage via social media, newsletters, promotional materials, press releases, etc.

- ‘**Consult**’ - stakeholders have **high interest but low influence** and may become influential by forming alliances with other more influential stakeholders. These are often the marginal stakeholders that may also be considered ‘hard to reach’, and that might warrant special attention to secure their engagement and to empower them to engage as equals in the research process with more influential participants.

Engage via direct consultations/meetings, workshops, webinars, roundtable discussions, emails

- ‘**Involve**’ refers to the **highly influential stakeholders, but who have low interest** in the research or low capacity/ resources to engage. Because of this, they may have significant influence over the success of the project, but may be difficult to engage in the research process. As such, particular effort may be necessary to engage this group in the research and therefore effort should be made as early as possible in the project’s stakeholder engagement activities.

Engage via social media, newsletters, emails, promotional materials, infographics, press releases, direct consultations/meetings, workshops, webinars, roundtable discussions

- **'Collaborate'** - stakeholders have **high interest and high influence**, hence are most beneficial to engage. They may be able to supply relevant information, permissions and resources, or may be markedly impacted by the eventual outcomes.

They can be engaged via personal contact, direct consultations/communication, workshops, webinars, roundtable discussions.

Such stakeholders may already operate in existing forums with one another, making such meetings an easy point of entry into their networks. Where possible, we will use existing networks as a first point of entry to these stakeholders. Once engaged, their wider networks can subsequently also be engaged ("Snowball effect").

3. "Snowball effect"

The so-called snowball effect refers to an accumulation of knowledge about stakeholders through the ones that have already been contacted or are currently involved in the project. In this way, a "branching out" process occurs where the stakeholder database can be significantly enriched based on recommendations of current stakeholders. The outcome is a more holistic stakeholder landscape.

2.4. How to avoid bias?

Cognitive bias is the absence of a purely objective point of view that entails not favouring any particular group, idea, or school of thought both intentionally and unintentionally in the process of selecting stakeholders. Bias is almost endemic to all stakeholder analysis methods.

One type of bias is confirmation bias, which is a phenomenon that involves an information processing error that is compiled, interpreted, analysed in a way that confirms or support's one's prior beliefs or values.¹ This can have a distorting effect on the stakeholder mapping and analysis process. The implications of a narrow point of view are flawed decision-making, inappropriate risk assessment, and limited awareness of possibilities and opportunities.

Other types include sampling bias (stakeholders not represented from all categories or subcategories equally, i.e., one category favoured more than others), geographical bias (favouring certain cities/countries), or sponsor bias (favouring the interests of a sponsoring organisation).

In the case of NICHES, the geographical bias is an inherent part of its stakeholder engagement strategy as NICHES has a city-centric approach. This is recognised and, in this case, bias equates to city-specific expertise, which is desired and welcomed in order to enrich the overall knowledge produced within the framework of the project.

¹ Nickerson, Raymond S. (1998), "Confirmation bias: A ubiquitous phenomenon in many guises", *Review of General Psychology*, 2 (2): 175–220, doi:[10.1037/1089-2680.2.2.175](https://doi.org/10.1037/1089-2680.2.2.175)

The “snowball” approach in particular risks creating a community based on bias through the overrepresentation of certain stakeholders and their interests that tend to follow similar semantic lines.

Here are some guidelines to consider in order to minimise bias in the stakeholder mapping and analysis processes:

- Seek to identify stakeholders with opposing views to your own and attempt to include their viewpoint in your mapping and analysis processes.
- Urge your stakeholders to identify alternative solutions or ideas that would utilise an ‘out of the box’ approach.
- When urging stakeholders to identify other stakeholders through the ‘snowballing’ approach, ask them to consider stakeholders with differing or opposing views as well.
- Ask for an independent person to review your compiled list of stakeholders and assess whether all categories of stakeholders are equally represented as well as contribute to the mapping themselves if need be.
- Strive for equal representation, i.e., attempt to remain impartial in the selection process and equally distribute your stakeholders across all the NICHES categories.
- If a stakeholder with an opposing view refuses to participate in the stakeholder engagement process of NICHES, take note of this and include it in your analysis. Also, inform explicitly about why they are refusing, as their reason may reveal existing biases or perception of the problem.

3. Step 2: Engagement Plan

3.1. Principles of engagement

NICHES' stakeholder engagement adheres to the principles outlined in the Biodiversa+ Stakeholder Engagement Handbook. For research to be considered valid and valuable, it should be undertaken with **credibility**, **relevance**, and **legitimacy (CRELE)** principles, which can be defined as follows:

- **Credibility** is the perceived quality and validity of the stakeholder engagement process and the people involved with the engagement. To improve credibility, a stakeholder engagement process should have clear objectives, use the most appropriate people and methods, but avoid exclusion of those with opposing views, and be transparent.
- **Relevance** refers to the usefulness of the engagement process and its outcomes – how closely it relates to stakeholders and researchers needs, and how responsive the process is to changing needs.
- **Legitimacy** is the perceived fairness and balance of the stakeholder engagement process and is particularly important in cases where conflict may occur. A clearly stated, appropriate and agreed stakeholder engagement process, along with appropriate methods, can help manage conflict and dissent, and therefore enhance legitimacy.

By adhering to the aforementioned principles, the stakeholder engagement process can utilise a different set of channels to communicate project outcomes. In general, NICHES will maximise the CRELE by engaging with stakeholders early on, proactively, and inclusively.

3.1.1. Clustering stakeholders per city

The five NICHES' case study cities represent five different co-design arenas, within which all local stakeholder engagement activities will be conducted. As the cities are involved in different tasks to differing degrees (as outlined in the three-tier approach), the degree and type of engagement activities will vary in each local context and across NICHES tasks. For tasks which involve multiple cities, a coordinated approach will be applied to engage stakeholders at local, European, or international levels.

As such, a tailored Stakeholder Engagement Plan will be developed for each city by the partners (see annex for Berlin based on survey responses so far). This will be a template (available for everyone on the OneDrive and linked directly in this document) that each partner can periodically fill in after the stakeholder mapping process has been completed.

Visualising the different stakeholders in this template will help streamline the practical engagement approach.

4. Step 3: Preparation and engagement

NICHES' co-design arenas are a tool for implementing centralised approach to engagement, similar to a living lab approach. Their aim is fostering knowledge exchange and collaboration within the five NICHES cities and between the key stakeholder groups. As such, the arenas will serve as the main support mechanism for engaging with stakeholders in practice within Step 3. As such, this chapter presents a set of guidelines for contacting, communicating and engaging with stakeholders in the co-design arenas, with the aim of developing a city-specific engagement plan, avoiding stakeholder burn-out, and ensure the best use of stakeholders' limited time. Each city's plan should include an overview including: the tasks for which the city is foreseen to co-create products (see section 4.1), the form of engagement best suited to each task (see section 4.2. Engagement channels), the type of stakeholders to be involved for each, the timeline, and the most appropriate means of contacting each stakeholder (see section 4.3. Contacting stakeholders).

A well-coordinated stakeholder engagement approach will also ensure that stakeholders are targeted and involved in a focused and efficient way with mutual benefits for both the project and for the stakeholders for whom NICHES results and outcomes may be useful. Moreover, it will ensure that the project is adhering to the rules for privacy policy and ethics in personal data management. If these guidelines are followed, it will mitigate the greatest challenge facing stakeholder involvement by projects - stakeholder fatigue.

4.1. Map the co-creation activities and timeline

As a first preparatory step, the foreseen co-design activities within the project should be mapped per case study city along with the envisioned timing. These activities will lead to the production of co-developed products and outcomes and serve as the basis for developing the city-specific engagement plan. An overview of some of the key tasks containing co-creation elements in NICHES follows:

Task 1.1 *Conceptual foundations: comparative framing of urban water management in Europe and beyond* foresees a workshop with project partners representing all five NICHES cities. Work package 2 requires a high level of expertise to run its model, which will be conducted in Rotterdam together with an analysis of local NBS policies in Boston and Barcelona. Task 2.4 *Modelling mitigation potential* needs data input from other NICHES cities as well as relevant stakeholders. Work Package 3, which explores the social and economic impacts of NBS, will develop tailored scenarios for spatial expression, requiring e.g. input data for enabling vulnerability assessments. Furthermore, Task 3.2 *Social and economic values of enhanced ecosystem services* necessitates co-design in order to identify the most relevant stakeholders and conduct a survey. The survey will be developed by UAB, but the other partners' assistance is needed for its distribution. Work Package 4 also foresees the co-development of transition pathways together with local stakeholders, building on the findings and activities of the previous Work Packages.

These products will lead to the co-creation of key products in NICHES, such as: integral visions on urban nature and its values (Rotterdam), mapping of desired values throughout the urban waterscape (Rotterdam) an assessment tool for sewage overflow impacts on ecosystem service delivery (Rotterdam), definition of conceptual foundations and boundary concepts (all cities), evaluation of governance frameworks and definition of transition pathways (core cities).

4.2. Engagement channels

A variety of engagement channels exist which can be utilised within each city’s co-design arena, depending on the type of task for which the stakeholder involvement is foreseen. Key channels include, for example:

- € **Workshops** (planned for December 2022, March 2023, May 2024 and November 2024)
- **Virtual dialogues** - participatory online sessions designed to connect and exchange ideas
- **Exchange forums** - spaces for bilateral communication between actors from relevant authorities focused on a certain topic
- **Feedback gathering activities** about the project progress as well as published results via an organised exchanges, meetings, interviews, surveys, etc

In addition to the aforementioned co-creation channels, a number of further resources can be utilised to support or foster further engagement activities, such as:

- **NICHES website** and promotional materials should be shared with all stakeholders as an entry point/introduction to the project.
- **Scientific publications** can be shared at various stages of the project to highlight the state of the art, NICHES activities and results; co-authorship and collaborative publications can also potentially be developed with select stakeholders to highlight city-specific activities and findings or with wider experts; potential journals include e.g.: UFUG, STOTEN, EST, Sustainability Science, Landscape and Urban Planning, Ecosystem Services, Nature-based Solutions, Nature Urban Sustainability.
- **Presentations at scientific conferences**
- **NICHES Newsletter, press releases and social media channels** (e.g. Twitter (@NICHES_project) and Facebook (NICHES project) can also be shared throughout the project as a channel to stay informed about updates, news, publications, etc both within and beyond the case study cities; pros and cons are outlined in table 1 below.

Social media name	Specification	Impact
Twitter	Pros: Short, fast, easy communication; popular and with high number of users; Twitter lists easy way to follow news and interact; Event back-channelling	Generate interest and share on-going news and activities through posts/tweets Build community around the project

	<p>Cons: rather limited in space and media sharing; Tweets have a short searchability lifetime; Uncertainty about the platform's future after Elon Musk's acquisition</p>	<p>Live stream/post conference events review</p>
<p>Facebook</p>	<p>Pros: Useful for sharing media (pictures, videos); Large number of users; Create events and invite users; Community-like feel; wide reach of target audiences</p> <p>Cons: Less professional and used mainly for personal social activities</p>	<p>Generate interest and share on-going news and activities through posts</p> <p>Share relevant multimedia (in posts or as separate albums)</p> <p>Events creation and promotion – strengthening the sense of community around the project</p> <p>Insights – provide useful analytics for the development of the page</p>

Table 1. The pros and cons of NICHES' social media channels - Twitter & Facebook.

4.3. Contacting stakeholders

4.3.1. First contact

After the NICHES tasks and activities have been outlined for which co-creation or other forms of engagement are foreseen, the first contact can be made with relevant stakeholders. Table 2 below outlines the means of engagement by stakeholder group during first contact. Here it is critical to keep the **principles of engagement** in mind and be compliant with General Data Protection Regulation (GDPR) rules, as described in the NICHES Data Management Plan (DMP), when processing personal data. The most important principles that apply to establishing and maintaining contacts with stakeholders are:

- Personal data will only be collected for the minimum necessary and according to best practices.
- Personal data will not be shared externally to the project.
- Personal data used for research purposes will be anonymised.
- Personal data will only be collected after due consent is given.

Keeping these aspects in mind, the potential means of engagement for the initial contacting of stakeholders are as follows:

	Means of engagement for first contact of stakeholders
Inform	<ul style="list-style-type: none"> ● Social media

	<ul style="list-style-type: none"> ● Media publications ● Project newsletter ● Local informative campaign to introduce the project in e.g. newspapers, magazines, local websites, etc.
Involve	<ul style="list-style-type: none"> ● Invite to workshops as a speaker or collaborator ● Project newsletter
Consult	<ul style="list-style-type: none"> ● Presentations about the project to relevant stakeholders with the aim of receiving feedback ● Project newsletter ● Focus group discussions
Collaborate	<ul style="list-style-type: none"> ● Personal meeting ● personal calls, ● Email correspondence ● Invite to workshops ● Give public talks ● Invite to participation in co-design arenas ● Invite to participation in field visits

Table 2. Means of engagement for first contact of stakeholders

4.3.2. Further targeted engagement and communication

Following initial engagement with stakeholders a second and more prolonged stage of stakeholder engagement can take place. After initial contact has been established and solidified, further and more in-depth engagement can occur based on the interest category of each stakeholder. See the table 3 below.

	Means of engagement for further targeted engagement of stakeholders
Inform	<ul style="list-style-type: none"> ● Via website materials and newsletter ● Further social media engagement via # and @ ● Local informative campaign in e.g., newspapers, magazines, participation in public events, etc.
Involve	<ul style="list-style-type: none"> ● Via newsletter and invitation to public events ● Invite as speakers to NICHES events ● Involvement of influencers and public figures
Consult	<ul style="list-style-type: none"> ● Consultation of draft documents, attendance of meeting, etc ● Participation in existing stakeholder consultation platforms ● Submission of expert opinions and comments to public consultation procedures ● Feedback to specific questions through surveys or interviews
Collaborate	<ul style="list-style-type: none"> ● Personal invitations to participate in co-design arenas ● Co-authorship to scientific articles ● Collaboration in co-design arenas ● Participation in interviews, surveys, workshops, etc ● Participation in scientific conferences with the relevant stakeholders ● Participation in the organisation and hosting of the NICHES final

	conference
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Table 3. Means of engagement for further targeted engagement of stakeholders

4.4. Challenges and limitations

There are a number of extraordinary circumstances to consider when it comes to engaging with stakeholders, such as:

- Covid-19 restrictions & hybrid/online engagement
- Burn-out
- Stakeholder fatigue
- Biased representation
- Power imbalances within stakeholder engagement
- Short-term engagement
- Unrealistically high expectations

See table 4 for a detailed explanation of the challenges and limitations together with suggestions on how to avoid or overcome such circumstances.

Challenges and limitations	Ways to avoid or overcome
Covid-19 restrictions & hybrid/online engagement	Covid-19 restrictions across Europe are beginning to fade away. However, in the case of a resurgence of the virus, it is important to note that stakeholder engagement can only be led online and through digital means such as emails, online workshops, online meetings, or other digitally conducted events or activities.
Burn out	In the case a stakeholder is contacted and informs they are currently experiencing a burn-out, consider that the stakeholder will have limited working hours and should only be contacted at a specific window of time that is previously arranged or specified.
Stakeholder fatigue	Where possible, avoid working with communities suffering from stakeholder fatigue. Where this is not possible, ensure there will be tangible benefits for stakeholders from engaging with your research, and work with opinion leaders (who you may identify using stakeholder analysis) to persuade others that it is important to engage with the project.
Biased representation	Conduct a systematic stakeholder analysis to identify and prioritise those who should be engaged. Consider who might have most

	influence, but do not neglect those stakeholders with significant interest in your research, who may be powerless or marginalised.
Power imbalances within stakeholder engagement activities	Carefully design stakeholder engagement activities with a professional facilitator, considering: parallel activities for groups in conflict or with significant differences in power; and facilitation methods that enable all participants to provide and comment on ideas (possibly anonymously). If there is no facilitation budget, undertake basic facilitation training for a member of the research team.
Short-term engagement	Identify local organisations that might have a long-term presence in your study area and plan the legacy of your research with them from the outset, giving them sufficient ownership of the research to continue investing in outcomes long after the research has ended. Find ways to fund ongoing engagement, even if very limited, to maintain relationships, and lay foundations for future research that could be funded.
Unrealistically high expectations	Manage expectations carefully from the outset. If engaging with stakeholders during project development, make it clear if funding is uncertain; make sure you are engaging with those who have a strong interest in your research; identify which ideas the project team may be able to work with immediately, and update stakeholders as soon as possible with research plans to show which of their ideas have been integrated and why it was not possible to integrate all ideas.

Table 4. Challenges and limitations in the stakeholder engagement process and the means to combat them. Source: Biodiversa+ Stakeholder Engagement Handbook.

5. Step 4: Review and assessment

In order to conduct a meaningful stakeholder engagement in the co-design arenas and within NICHES more broadly, it is critical to be able to measure and report on the efforts, successes, and challenges faced. Portraying the results of the engagement in a quantifiable way can help steer future engagement efforts and direct energies in a more targeted and time-efficient manner. Self-reporting by the partners responsible for the respective co-design arenas in the form of bi-annual assessments against Key Performance Indicators (KPIs) will allow for engagement approaches to be assessed, adapted as needed and improved moving forward. For key co-creation activities, such as workshops, short surveys can be utilised to gather feedback from the participants without overburdening the stakeholders. Questions to guide the evaluation include:

- Did the engagement achieve its aim?
- Were the selected methods appropriate?
- Were the costs reasonable?
- What was the impact on the stakeholders?
- What was the impact on the project from the engagement?

5.1. Stages of evaluation

There are three different stages of evaluation listed in figure 7.

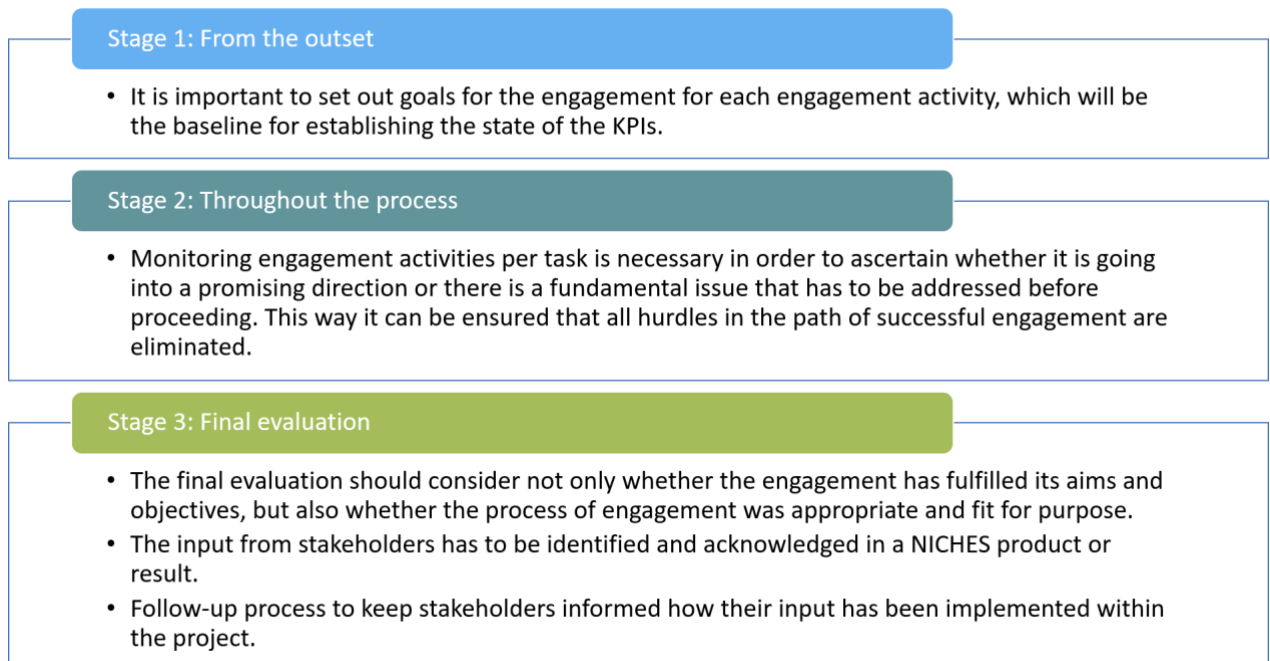


Fig. 7. Stages of evaluation

5.2. Stakeholder engagement Key Performance Indicators (KPIs)

KPI is a quantifiable measure of performance for a specific objective that can be monitored over time. Defining specific KPIs helps with identifying successful measures together with areas for improvement.

The following quantifiable KPIs can be used:

- Number of participants at an event (e.g., workshop, discussion group, exchange forum, etc.) and measuring engagement/interest of stakeholders on a scale from 1-5
- Integration of stakeholder input into co-creation products, number of co-created products, etc.
- Number of recipients of NICHES newsletter post-engagement
- Number of emails received about NICHES progress
- Number of calls received about NICHES progress
- Number of print materials distributed at in-person meetings/events
- Reach, i.e. the diversity of sectoral actors represented in engagement events

These KPIs will be evaluated in relation to the 3 stages of evaluation so as to compare their growth. See table 5. You can access the table [here](#).

KPI	Stage 1	Stage 2	Stage 3
Number of participants at an event (e.g., workshop, discussion group, exchange forum, etc.) and measuring engagement/interest of stakeholders on a scale from 1-5			
Integration of stakeholder input into co-creation products, number of co-created products, etc.			
Number of recipients of NICHES newsletter post-engagement			
Number of emails received about NICHES progress			
Number of calls received about NICHES progress			
Number of print materials distributed at in-person meetings/events			
Reach, i.e. the diversity of sectoral actors represented in engagement events			

Table 5. KPI evaluation in relation to the three stages of evaluation.

5.3. Individual stakeholder evaluation framework

Furthermore, an evaluation for each stakeholder activity within a co-design arena has to be conducted based on the interest of stakeholders post-engagement. This helps with determining the success, or lack of such, of the engagement process. The evaluation is conducted by the respective partner responsible per co-design arena. In table 6 are the categories for assessing the stakeholders' engagement are:

- Unaware
- Resistant
- Neutral
- Supportive
- Leading

Indicating “C” in the table refers to the current state of engagement and “D” to the desired state.

Stakeholder name	Unaware	Resistant	Neutral	Supportive	Leading
Stakeholder name					
Stakeholder name			D		
Stakeholder name					
Stakeholder name		C	D		
Stakeholder name					
Stakeholder name					
Stakeholder name			D C		
Stakeholder name					
Stakeholder name					
Stakeholder name					

Table 6. Indicating the state of the stakeholder's post-engagement. Source: ProjectManagement.info

This evaluation framework is useful for managing and monitoring communication efforts and for assessing stakeholders' response to the engagement. In this way, the current and desired state of the relationship can be visualised and an appropriate response or a set of actions can be undertaken to reach the desired state. It is a sort of "reality check" on whether the tools and methods for reaching out are producing the desired result or not.

Access table 6 [here](#).

6. Conclusion

Stakeholder engagement plays a major role in the implementation of the NICHES project and is a key component in multiple tasks across different work packages. The NICHES co-design arenas are heavily based on the ability to discourse with relevant persons and authorities.

Standardised rules for identifying and engaging with stakeholders have been defined in this strategy. By adhering to these guidelines, successful stakeholder engagement will be conducted that guarantees quality input from stakeholders and appropriate management of information. Moreover, compliance with the general personal data protection rules will be ensured.

The NICHES partners are responsible for the periodic update of the stakeholder database as well as the tables for post-engagement evaluation. Each NICHES partner is responsible for stakeholder engagement in their respective NICHES case-study city.

Engagement with stakeholders is an ongoing activity that will be conducted throughout the duration of the NICHES project. The aim is to construct a sustainable and bilateral communication framework that facilitates collaboration and co-design with the most relevant experts and stakeholders. Regular and timely monitoring of all engagement activities is required for identifying areas of improvement for future stakeholder engagement activities.

References

Durham E., Baker H., Smith M., Moore E. & Morgan V. (2014). *The BiodivERsA Stakeholder Engagement Handbook*. BiodivERsA, Paris (108 pp).

ProjectManagement.info, *Stakeholder Engagement Assessment Matrix: Uses & Example*. Communications & Stakeholder Management, By Sebastian <https://projectmanagement.info/stakeholder-engagement-matrix/#2-how-to-determine-the-desired-stakeholder-engagement-level>



<http://niches-project.eu/>

Project partners



NICHES is made possible with the support of:



Annex

PLANNED INVOLVEMENT OF STAKEHOLDERS PER CITY

Table in living form access [here](#). E.g.:

Category	Sub-category	Which task(s) is the stakeholder foreseen to be involved in? Or general dissemination/exploitation?	Level of engagement	Code
Academia (research and education)	Chemists	T.1, T2.3, T2.4, T4.5; dissemination		BE0
	Ecologists	T1.1, T1.2., T2.2?		BE20
	Hydroengineers	T1.1, T1.2., T2.2		BE16
		T1.1, T1.2., T2.2?		BE14
	Hydrologists	T1.1, T1.2., T2.2?		BE13
				BE5
	Urbanists	T1.1, T1.2., T2.2?		BE11
				BE18
				BE8
Business & Economy	Construction companies	T1.1, T1.2., T2.2?		BE12
Civil Society	Community groups/neighbourhood associations	T1.1, T1.2.		BE9
	Environmental NGOs	WP1, WP2		BE19
				BE21
Government & Public Authorities	City council	T1.1, T1.2.		BE17
				BE25
				BE6
				BE7
	Public work ministries	T1.1, T1.2.		BE2
	Water management authorities	T1.1, T1.2.		BE10
		T1.1, T1.2., T2.2?		BE1
Media	Journalists	WP1, WP2		BE23
Sectoral Professionals (practitioners)	Hydro-engineers	T1.1, T1.2.		BE4
		T1.1, T1.2., T2.2?		BE15
	Landscape & urban planners	T1.1, T1.2., T2.2?		BE3
	Other sub-category (Please elaborate)	WP1, WP2		BE24
	Water management technicians	T1.1, T1.2.		BE22