



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

## **D6.3 Plan on ethics, gender, data management and protection and intellectual property rights**

29/09/2022

Lead partner: **Universitat Autònoma de Barcelona**

Author/s: Maestre Andrés, S.; Davis M.; Langemeyer, J.;  
Sapundzhieva, A.; Senerpont Domis, S.; Wild, T.

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# 1 Preface

The aim of this Data Management Plan is to describe the data management life cycle for the data to be collected, processed and generated within the NICHES project (*Nature's Integration in Cities' Hydrologies, Ecologies and Societies*) and to outline the project's approach to gender and ethics. The NICHES project - funded by BiodivRestore program (grant agreement PCI2022-133011) - aims to develop a holistic understanding of the ecological, social and economic needs for and benefits of stormwater runoff mitigation to deal with combined sewer overflows (CSO) using nature-based solutions (NBS). It is focused on five cities characterized by different challenges and experiences with water management: Barcelona, Berlin, Boston, Sheffield, and Rotterdam.

Accordingly, this Plan includes information on the handling of research data during and after the end of NICHES. It also explains the type and format of data collected, processed and/or generated as well as the methodology and standards applied in collecting and analysing data to ensure compliance with ethical aspects and gender equality. Finally, the Plan outlines whether data will be shared and/or made open access and the means of data curation and preservation, including after the end of the project.

For each city, data related to, *inter alia*, hydrology and ecology, ecosystem services, water management, social vulnerabilities, socio-economic indicators, social preferences, social media, relevant urban policies and planning processes will be collected and analysed using semi-structured interviews, stakeholder workshops, surveys, qualitative content analysis, statistical analysis, ecological resilience assessments, spatially-explicit NBS scenarios, modelling of run-off mitigation potential, hydrological and ecological impact assessments, life-cycle assessment, transitional governance models and social media analysis.

As a BiodivRestore-funded project, NICHES is committed to the Open Research Data (ORD) policy. For this purpose, the FAIR data principles are followed to make sure data is Findable, Accessible, Interoperable and Re-usable.

The Plan is intended to be a living document in which information can be specified in more detail through updates as the project progresses and when significant changes occur. The information presented in this plan will evolve, become more specific, or adapt over time. In Table 1 you can find information on the development and the revision process of the Plan on ethics, gender, data management, protection and intellectual property rights within NICHES, including information of the version and implemented changes since the last version.

**Table 1: History of the evolution of the Plan on ethics, gender, data management and protection and IPR of NICHES**

Date	Version	Implemented changes
29th September 2022	1.0	First document

This document constitutes the first version of the Data Management Plan (DMP) of the NICHES project. This DMP includes a description of the management life cycle for all research data belonging to the NICHES project. The first chapter describes the data with details on the methodology applied during the process of data collection and analysis and on the expected data structure, size, types and formats. The second chapter describes how the NICHES project will follow and apply each of the 'FAIR' principles. The third chapter includes information on the long-term data storage and the allocated resources. The last chapter discusses ethical and gender aspects related to data collection and management, including data security.

## 2 Summary

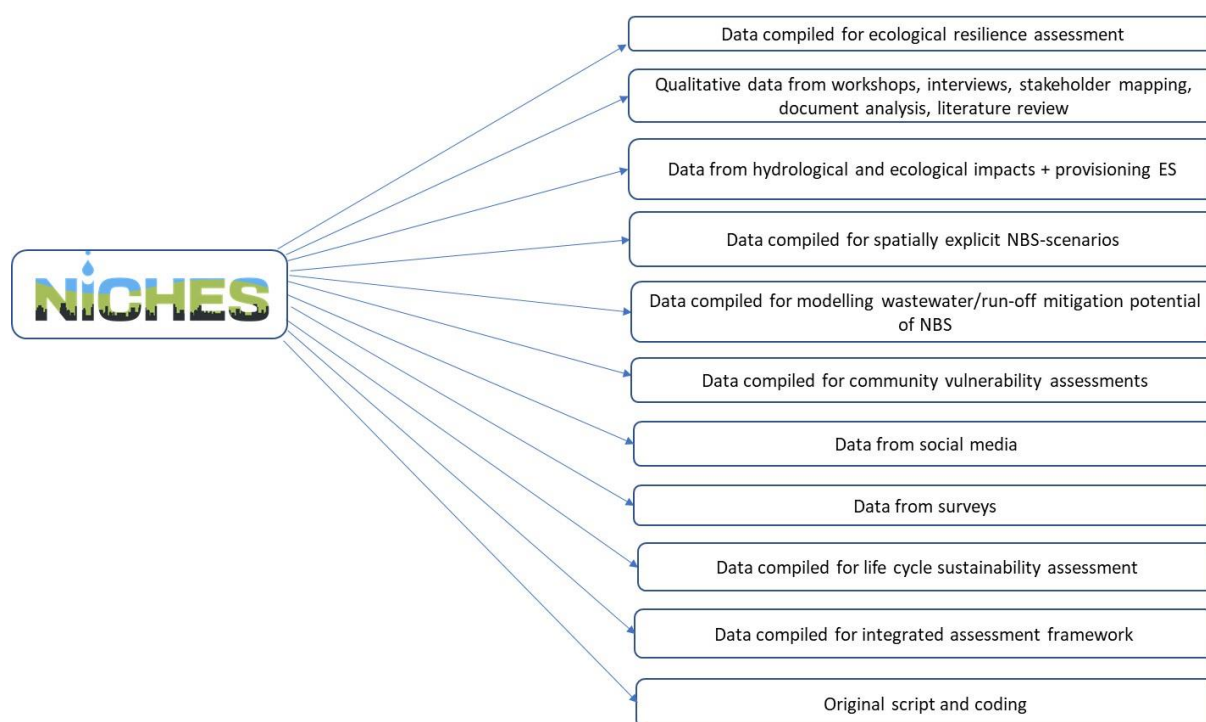
This document presents the NICHES (*Nature's Integration in Cities' Hydrologies, Ecologies and Societies*) project's plan for ethics, gender, data management, protection and intellectual property rights (Deliverable 6.3). NICHES is funded by BiodivRestore program (grant agreement PCI2022-133011) and aims to develop a holistic understanding of the ecological, social and economic needs for and benefits of stormwater runoff mitigation to deal with combined sewer overflows (CSO) using nature-based solutions (NBS). NICHES is committed to the Open Research Data (ORD) policy and the FAIR data principles are followed to make sure data is Findable, Accessible, Interoperable and Re-usable. The scope of this document includes data collection, through data processing and analysis, to storage and access provision both during and after the end of the project. It further contains the methodology and standards applied in collecting and analysing data to ensure compliance with ethical aspects and gender equality. The Plan is intended to be a living document in which information can be specified in more detail through updates as the project progresses and when significant changes occur. Therefore, the information presented in this plan will evolve, become more specific, or adapt over time.

### 3 List of abbreviations

APC	Author Processing Charges
CEEAH	Comissió d'Ètica en l'Experimentació Animal i Humana
DOI	Digital Object Identifier
DPO	Data protection officer
EU	European Union
NBS	Nature-based solutions
UAB	Universitat Autònoma de Barcelona

## 4 Data summary

The data collected and produced in NICHES responds to the project objective of developing a holistic understanding of the ecological, social and economic needs for and benefits of stormwater runoff mitigation to deal with combined sewer overflows (CSO) using nature-based solutions (NBS). The project involves the generation of new data as well as data collection from primary and secondary sources. The type and extent of data collected and produced varies across tasks and for the different NICHES products being developed. Primary data includes interviews and surveys as well as inputs collected during specific events (e.g. workshops). Secondary data will largely be sourced from scientific, governmental and grey literature and associated databases as well as national statistical offices. An overview of the datasets to be collected and produced in NICHES is provided in Fig. 1 and a detailed register of the completed data sets can be found in Annex B, including information on the purpose of the data collection/generation; the relation to the NICHES objectives; the types and formats of the data generated/collected; whether data has been re-use; the origin of the data; the expected size of the data and to whom will it be useful. As this is a living document, we will register the data sets once developed. ANNEX C shows a summary of planned data sets. More details on specific primary and secondary data sources across the different Work Packages (WPs) are listed in section 1.1.



**Figure 1:** Overview of the datasets collected and/or produced in NICHES

### 4.1 Data collection



In Table 2, we describe the process of data collection, its potential sensitivity and the structure and the formats of the collected data across WPs. Whenever external stakeholders are asked to participate in a NICHES event or in an interview, it is mandatory that they are asked for consent with regards to storing and processing their personal data. Stakeholders will thus be asked to confirm their consent with the information on processing and storage of personal data, as described in the project information sheet and consent form (see annex II). The template for the consent form is available in all languages spoken across the case study cities (English, German, Catalan, and Dutch), both as a Google form for online interviews/events as well as a Word Doc for in-person interviews/events.

**Table 2: Overview of collected data**

Collected data	Type of data	Brief description and sample	Corresponding WP	Sensitivity of data	Open data
Qualitative data from literature review	Secondary data	Systematic literature review on substantive themes (governance, institutions, stakeholder knowledge, gaps and challenges in SETS and nature-based urban water integration) will be conducted as well as about indicators, who uses them and for what purpose	1		Data will be freely and openly available
Qualitative data from workshops	Primary data	Data will be collected through different workshops: 1) Foundational workshop between partners to understand existing assets, constraints and opportunities (M9). 2) Stakeholder meeting from NICHES core cities to codesign ES provision module of the PCLake+ model (M12). 3) Workshop to discuss and weight vulnerability criteria alongside NBS co-benefits and environmental impact criteria in at least one co-design arena meeting (M12); further identification of constraints and opportunities in urban waterscape-wide rehabilitation plans. 4) Workshop with all partners and stakeholders from across five NICHES cities to facilitate transdisciplinary discussions of case-specific aspects (M13). 5) A cross-city co-creation virtual workshop to develop transition pathways for integrating restorative NBS within existing policy frameworks and foster cross-fertilization between urban water and green infrastructure management, planning and funding actors (M25)	1, 2, 3, 4	Consent will be requested through informed consent forms. Anonymisation of any personal data will be systematically performed.	Data will be freely and openly available
Qualitative data from interactive multi-stakeholder arenas	Primary data	Multi-stakeholder arenas for developing, testing and evaluating the approaches and tools of NICHES project will be established. Beyond workshops, virtual dialogues, exchange forums, feedback gathering activities and other participatory approaches will be promoted. These arenas will define a desirable future together with city practitioners and work backwards to identify policies and programs that will connect that specified future with the present.	5	Consent will be requested through informed consent forms. Anonymisation of any personal data will be systematically performed.	Data will be freely and openly available

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Qualitative data from stakeholder mapping	Primary data	Data regarding the identification of groups of stakeholders that need to be involved in the research. NICHEs project will build on established relationships with key city policy makers, expert communities and other targeted stakeholder groups in the NICHEs cities.	5	Consent will be requested for the inclusion of stakeholder addresses in mailing lists, etc.	Due to the difficulties of making data anonymous, it will not be openly available. Such data is strictly collected for the needs of the project and will not be shared/re-used for other purposes.
Data of ecological resilience	Secondary data	Data on hydrology and ecology of urban waterways	2	Low, open data	Data is openly available through government bodies
Data for BAU scenarios	Primary and secondary data	Data on, inter alia, technology (porous pavement, infiltration basins), target peak stormwater flow reduction, number of vulnerable residents who directly benefit, governance feasibility and stakeholder preferences will be gathered to develop consistent business-as-usual (BAU) scenarios across the NICHEs core cities. These BAU scenarios will estimate the potential magnitude of increases in environmental, social and economic impacts on aquatic systems under climate change conditions considering future precipitation projections.	2	Low, open data	Data from natural system models or secondary sources should be open and freely available.

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Data on community vulnerability	Secondary data	Data on social-hydrological vulnerabilities across SE systems based on 1) historical measurements and assessments of water quality, 2) existing configurations of the sewage system and critical areas for unfiltered discharges into aquatic ecosystems, 3) critical residential, commercial, and infrastructural areas for mitigating inland flooding risks. Implemented in core NICHES cities	3	Low, open data	Data from natural system models or secondary sources should be open and freely available.
Data from social media	Primary data	Data will be collected through different social media platforms	3	Data will be anonymized immediately after the retrieval. The project partners do not intend to gather, store or share sensitive data relating to identifiable individuals.	Data will be freely and openly available
Data from surveys	Primary data	Surveys will be designed and conducted in three NICHES core cities to examine people's perceptions of enhanced ES provisions from NBS co-benefits and reduced impacts on aquatic systems, including the sea. They will include a discrete choice experiment to evaluate preferences for potential increases in diverse ES benefits related to NBS co-benefits and improved water quality modelled under different scenarios.	3	Consent will be requested through informed consent forms. Anonymisation of any personal data will be systematically performed.	Data will be freely and openly available
Data compiled for life cycle sustainability assessment	Primary and secondary data	Modelling data will include: physical inputs of materials, equipment, and energy to be determined from engineering models; performance data such as physical metrics of nutrient recovery and water reuse/recovery to be determined from technical evaluations; and assessment results to be determined from modelling efforts from the NICHES team	3	Low sensitivity, not proprietary and/or previously published data or models	Data will be freely and openly available

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Data from document analysis	Primary data	NICHES team will examine the management of urban water SETS and assess how restorative NBS are implemented and embedded in urban policy and planning processes. Documents referring to relevant policies, economic instruments, restoration practices and management approaches will be analysed in the three NICHES core cities as a basis for identifying common governance gaps and opportunities.	4	Low sensitivity	Data will be freely and openly available
Data from interviews	Primary data	Interviews with policy makers of the NICHES core cities.	4	Consent will be requested through informed consent forms. Anonymisation of any personal data will be systematically performed.	Data will be freely and openly available

## 4.2 Data processing and analysis

### 4.2.1 Qualitative content analysis

Data from literature review, workshops, interviews and document analysis will be coded through qualitative content analysis.

### 4.2.2 Statistical analysis

Data from surveys will be analysed by applying statistical methods. NICHES will use open source programs, such as R/RStudio. All code used will be made available through ZENODO upon publication.

### 4.2.3 Modelling processes

The following modelling techniques will be used in NICHES: scenario development and modelling of the wastewater/run-off mitigation potential. These are outlined in more detail as follows.

#### 4.2.3.1 Scenario development

Spatially-explicit business-as-usual NBS-scenarios for the NICHES core cities will be developed to estimate the potential magnitude of increases in environmental, social and economic impacts on aquatic systems under climate change conditions considering future precipitation projections.

#### 4.2.3.2 Modelling of the wastewater/run-off mitigation potential

To model the wastewater/run-off mitigation potential of different scenarios of NBS, the project will apply the process-based coupled hydrological-aquatic ecosystem model (SOBEK-PLake+). The model is grounded in alternative stable state theory and incorporates water quality parameters (algal biomass, nutrient loading, oxygen dynamics). It will further include an ES provisioning module and validate it with available water quality data of Rotterdam.

### 4.2.4 Assessments

NICHES will undertake different types of assessments, including: ecological resilience assessment, community vulnerability assessment, social media assessments, life cycle sustainability assessment, and an integrated assessment framework.

#### 4.2.4.1 Ecological resilience assessment

An in-depth ecological resilience assessment to CSO will be conducted for the entire urban water catchment of Rotterdam. It will be developed at two spatial scales, urban catchment

scale and scale of a waterbody, to identify vulnerable nodes within the urban waterways networks.

#### 4.2.4.2 Community vulnerability assessment

Mapping of existing social-hydrological vulnerabilities across SE systems. Implemented in core NICHES cities.

#### 4.2.4.3 Social media assessments

It will examine spatial and temporal dynamics in the benefits of NBS in relation to CSO events in the coastal impact area in Barcelona. It further aims to provide a low-resource approach for measuring CSO impacts on cultural ecosystem services provided by inland and coastal waters.

#### 4.2.4.4 Life cycle sustainability assessment

A spatially explicit life-cycle assessment will be conducted to examine the environmental impacts of NBS in Barcelona. The overall environmental performance of NBS will be evaluated using process-based LCA following ISO standards 14040 and 14044. LCA modelling will be conducted to link the system-wide use of resources and generation of emissions to various categories of environmental impact, notably global warming potential and water quality impacts of freshwater and marine eutrophication.

#### 4.2.4.5 Integrated assessment framework

A multi-criteria decision analysis framework will be developed to evaluate different NBS scenarios under the consideration of conflicting social preferences and needs, results from the hydrological-aquatic ecosystem model, the spatially explicit BAU NBS-scenarios, the wastewater/run-off mitigation potential of different NBS scenarios, spatial distributions of social vulnerabilities and unequal distributions of environmental risks and results from the life-cycle sustainability assessment. The assessment framework will be tailored and tested within the co-design arenas.

## 5 FAIR data

NICHES follows the 'FAIR data principles' by making the project's research data *findable, accessible, interoperable and reusable*. This chapter describes how the data is organised to fulfil each requirement in an appropriate manner. Moreover, data collection and management will comply with the provisions set out in the Consortium Agreement.

### 5.1 Making data findable

All public deliverables will be stored and made available via the NICHES project website (<https://www.niches-project.eu/>). The presence and location of the online tools to be developed in NICHES will be advertised through project publications and additional dissemination channels.

Each of the NICHES datasets will be made publicly accessible via the Universitat Autònoma de Barcelona (UAB) public repository [DDD.uab.cat](http://ddd.uab.cat) to ensure a long-term archive, utility and re-use of data for increased reach and impact. Datasets will be linked to their authors and grouped together with other datasets from NICHES within a NICHES community space. Source code and datasets will also be publicly available in ZENODO upon acceptance of publications.

Larger datasets that cannot be stored in this repository due to their size will be included in the metadata on their respective research publications. Upon request, we will provide a summarised or full version of them.

#### 5.1.1 Metadata

Each file included in the NICHES inventory of datasets has a data description sheet with the necessary information to describe the underlying data in sufficient detail so others can use it.

NICHES metadata will include:

- Title
- Creator(s) and contact person(s): names, first names, email
- Date
- Version
- Location
- Contributor: e.g., funding body, including the grant agreement number
- Data format(s)
- Keywords
- Identifiers: DOI and url
- Access rights: license(s)
- Suggestion for citation
- A description of the methodology that has produced the data
- Brief description of the NICHES project

NICHES will also provide a README.txt file with a description of the structure of the data sets and subsets, on how the data is organised, how data sets are related to each other and on



how to use the data. The metadata will follow the Dublin Core Standard (<http://dublincore.org/>).

## 5.2 Making data openly accessible

NICHES will strictly adhere to the principles of free and open exchange of data and knowledge. All journal publications will be open access alongside the datasets associated with them. The code used in R will also be openly accessible. The project website will be maintained for 5 years after the project ends and project results will also be shared via relevant platforms, such as Oppla (<https://oppla.eu/>). Moreover, datasets will be stored in the UAB public repository DDD.uab.cat and in ZENODO. Similarly, any code developed will be made openly accessible on the UAB public repository DDD.uab.cat and in ZENODO.

All results and products disseminated by NICHES will comply with European Data Protection laws, most importantly the General Data Protection Regulation (GDPR) to ensure the protection of personal data collected. The Data Protection Officer at the UAB will provide advice where needed to ensure compliance with relevant regulations.

## 5.3 Making data interoperable

The form in which data is presented depends on the specific tool or data of interest (e.g. numerical value, text, hyperlink, etc.). However, to guarantee the interoperability of the data, the NICHES team uses free open source software and open or widely adopted formats, such as those from Microsoft Office, wherever possible.

The list of expected file types and formats includes:

- text documents (.txt, .docx, .pdf)
- tables (.xlsx, .csv)
- images (.jpeg, .png)
- audio files (.mp3, .wav)
- video files (.mp4)
- geodata: different files related to geoinformation systems, such as QGIS (e.g., .shp, .dbf)

## 5.4 Making data re-usable

NICHES data will be made publicly available via the UAB public repository DDD.uab.cat to the extent possible, while considering intellectual property rights. All published NICHES data will be reusable and is expected to be useful to both academic, public and private sector groups linked to urban water management, (aquatic) biodiversity conservation, ecological resilience, sustainable urban development, landscape planning, and the urban metabolism more broadly. Currently, there is no estimate of how long the data will remain re-usable, but it is expected to be kept available for as long as the aforementioned repository is active. Efforts will be made to preserve online tools for public use for as long as possible after the conclusion of the project.

When making NICHES data and publications publicly available, a permissive license with attribution will be attached to make it safe for others to use. The general Creative Commons license and in particular the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA license) is the default license of choice. This license allows for the re-distribution and re-use of the licensed work and data on the condition that the creator is appropriately credited, the data are not commercially used and that modified data will be distributed under the same license.

In addition, the use of NICHES data requires acknowledgement of funding support including all partner contributions, not just Biodiversa-Water JPI.

## 6 Data storage and security

The NICHES project partners are obliged to ensure that the data gathered and used during the project is managed in accordance with relevant data protection rules. This chapter explains the long-term storage of data as well as the data security structure.

### 6.1 Long-term data preservation

To ensure the long visibility and usability of NICHES outputs, the website will be maintained for 5 years after the project ends. The consortium will ensure open access to the anonymized data collected through the UAB public repository [DDD.uab.cat](http://DDD.uab.cat) to ensure a long-term archive, and utility and re-use of data to create impact.

NICHES does not contemplate the destruction of data during or after the project, except in two cases:

- When project participants or researchers specifically request it.
- For digital copies of consent forms obtained from participants and interviewees, these will be destroyed three years after the end of the project.

Table 3 includes the long-term data preservation policy for each one of the repositories and dataset types.

**Table 3: NICHES digital storages and backup spaces, its compatibilities with the different datasets, open access and longevity**

	Data for ecological resilience assessment	Qualitative data	Data about hydrological and ecological impacts	Data for scenarios	Data for modelling mitigation potential	Data about community vulnerability	Data from social media	Data from surveys	Data for life cycle sustainability assessment	Data for integrated assessment framework	Original script & coding	Storage capacity	Open Access	Long-term storage
Zenodo	x	x	x	x	x	x	x	x	x	x	x	50 Gb per dataset. No data set limits	YES	YES
OneDrive	x	x	x	x	x	x	x	x	x	x	x	1 TB per user	NO	NO
UAB public repository	x	x	x	x	x	x	x	x	x	x	x		YES	YES
External hard drive	x	x	x	x	x	x	x	x	x	x	x	1.8 TB	NO	YES

## 6.2 Data security

Data security is the responsibility of each partner. However, some general recommendations are as follows: Partners should regularly back up files/data and use different media (e.g. external hard drives, computer hard drives, departmental server). Computer firewalls should be enabled and antimalware software should be up-to-date and operational. Users must have access to the computers and/or servers via individual user accounts, not via shared accounts. Computers connected to networks should not store sensitive data, unless data is encrypted, so as to minimize network vulnerabilities.

Data transfer will be required between the U.S.A. and Europe (between UAB and Northeastern University partners) for shared work on the NICHES core case study cities. Only fully anonymized data will be transferred. Transfer will be done according to the current legislation in the U.S.A. and according to the current legislation in Spain (Spanish Law of Personal Data Protection and Digital Rights Guarantee, 3/2018, of 5th December) and fully comply with Chapter V of the GDPR.

## 7 Ethical and gender aspects

NICHES will interact with a multitude of stakeholders for developing, testing and evaluating the approaches and tools of the project. The project recognizes 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. Each partner shall ensure that its work on NICHES fully complies with all applicable local, government and international laws, regulations and guidelines effective during the period of the Consortium Agreement.

Gender is omnipresent and most of the time easily visible at the social level. However, gender relations are also embedded in culture. This dimension is not easy to recognize as culturally defined gender relations reside in ideas and values that to a large extent are taken for granted. NICHES will use a gender neutral approach and will ensure that participatory and co-creation processes are balanced in terms of gender. NICHES will include indicators related to gender to evaluate its transdisciplinary processes. The project will consider specific gender preferences, needs and values when designing the surveys to capture the enhanced social and economic values of ecosystem services delivered by nature-based solutions. It will further consider gender as an aspect to assess in community vulnerability assessments.

Human interactions are foreseen in the form of participation at workshops and exchange events, targeted interviews to e.g. identify stakeholders (snowball method), as well as in other co-creation activities such as interviews, testing of models and tools (i.e. gathering feedback and opinions), and co-development of policy pathways (conceptual work). These activities will be centrally overseen by a dedicated Stakeholder Engagement Strategy and within the co-design arena task.

Ethical issues will be covered in the process for ethical clearance for data collection involving humans and consistent with the requirements of the ethics review to be conducted by the Ethics Committee for Animal and Human Experimentation of UAB [ceeah@uab.cat] under supervision of the Catalan Data Protection Authority (<https://apdcat.gencat.cat/ca/contacte>). Specifically, at the start of these interactions with human participants, consent will be requested through informed consent forms (see Annex D), clarifying, amongst others:

- the voluntary basis of the anticipated interaction
- the aims of the specific task
- the approach of the specific tasks and what happens during the interaction
- the foreseen advantages and disadvantages of the interaction, and what level of discomfort or risks might ensue
- what happens with the data collected during the interaction and how data will be curated during the lifetime of the project, and destroyed or opened up for re-use upon completion of the project
- the steps taken to ensure anonymity and compliance with the GDPR, including the right to be forgotten.

Where required by law or policy at the national or institutional level as applied to individual NICHES partners, separate and more detailed ethics submissions may be made by those partners, e.g. by WP or task leaders. This will be carried out in conjunction with UAB's project-level ethics submission and in close cooperation with its project team.

NICHES will take the necessary steps to ensure that informed consent forms as well as project information are written in a language that the participants can fully understand. For this purpose, the consent form template is available in all languages spoken across the case study cities (English, German, Catalan, and Dutch) and is available both as a Google form for online interviews/events and as a Word Doc for in-person interviews/events. The participants are requested to give their consent in writing.

Personal data will be collected when necessary for mapping and keeping an overview of NICHES actors who are involved in the project as stakeholders and/or wishing to be informed of project activities, outcomes and results. This data will be kept for internal research use among NICHES partners, and it will be anonymized in case the data needs to be publicly available. The majority of personal data collection will take place in the three core NICHES cities within the scope of the co-creation arenas.

Social media data will be used under T3.2. In accordance with the provisions of the EU GDPR, the data use is justified by the satisfaction of legitimate interests of the data controller (Article 6.1.g). This legitimating base is adequate if we take into account, in addition that, according to article 5.1.b of the GDPR, the investigation is a purpose compatible with the consent for data collection. Data will be anonymized immediately after the retrieval (replacing user IDs and e-mail addresses etc. by a continuous number). The project partners do not intend to gather, store or share sensitive data relating to identifiable individuals.

The data collected will be saved on a protected internal UAB hard drive so as to avoid unauthorized access from anyone other than the relevant NICHES team members from whom

the information is directly relevant. UAB has appointed a DPO, Agustí Verde Parera ([proteccio.dades@uab.cat](mailto:proteccio.dades@uab.cat)) under the GDPR.

Knowledge management and Intellectual Property Rights (IPR) will be addressed in full compliance with the NICHES Consortium Agreement.



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

### Project partners



### NICHES is made possible with the support of:





## 8 Annex

### Annex A. Glossary of terms

Anonymization	Data processing technique that removes or modifies personally identifiable information. It results in anonymized data that cannot be associated with any one individual.
Metadata	Set of structured data describing physical or digital resources. They are an essential element for sharing information about publications and data sets. Set standards for metadata are essential for the interoperability between electronic resources.
Primary data	Data collected or produced directly by NICHES partners
Secondary data	Data collected by third parties and obtained by NICHES either because it is public data or third-party data without confidential agreements; or through agreements with third party organisations.

## Annex B Register of completed datasets

<b>Name of the dataset</b>	<b>Purpose of the data collection/generation</b>	<b>Relation to NICHES objectives</b>	<b>Types and formats of data</b>	<b>Existing data re-use (if any)</b>	<b>Origin of the data</b>	<b>Expected size of the data (if known)</b>	<b>Data utility : to whom will it be useful</b>

## Annex C Summary of planned data sets

<b>Name of data sets</b>
Data compiled for ecological resilience assessment
Survey results about people’s perceptions of enhanced ecosystem services provisions from NBS co-benefits (one per each NICHES core city)
Social-demographic data compiled for the community vulnerability assessment
Official land use data
Measurement data on hydrology and relevant biophysical components
Qualitative data
Stakeholder mapping
Co-created knowledge and understanding of restorative NbS to avoid storm-water run-off
Policy gaps and opportunities for the management of urban water SETS
Transition pathways toward NBS to mitigate CSO
Data compiled for spatially explicit NBS-scenarios
Data compiled for modelling wastewater/run-off mitigation potential of NBS
Data from social media
Data compiled for life cycle sustainability assessment
Data compiled for integrated assessment framework
Original script and coding

## Annex D NICHES consent form template and Information sheet

The next pages contain an information sheet and consent form to be used for all relevant NICHES activities that involve the participation of external stakeholders. The project and research information sheet will be provided together with the consent form before the start of the activity. By signing / not signing the consent form, stakeholders receive an opportunity to confirm / decline involvement. For activities with online registration, participants may acknowledge their consent by clicking an 'Agreement to Terms and Conditions' box.

NICHES acknowledges that participants have the right:

- To know how their data will be collected, used, protected during the project and either destroyed or reused at the end of the research,
- To know who will benefit from participation,
- To ask questions and receive understandable answers before making a decision,
- To know the degree of risk and burden involved in participation,
- To withdraw consent provided at any time, and
- To be aware of any potential commercial exploitation of the research.

The information sheet and consent form is also available in Dutch, Catalan, English and German and will be handed out to participants in their preferred language.

## Project Information Sheet

### ABOUT NICHES

The ecological, social and economic impacts of combined waste and rainwater sewer systems (CSO) on aquatic ecosystems represent a lock-in for many urbanized areas. Compounded by climate change and increasing heavy rain events, there is an urgent need to increase the evidence around and implementation of restorative nature-based solutions (NBS) to avoid storm-water runoff in urban areas and preserve ecosystem functioning and aquatic ecosystem biodiversity. Examples of relevant NBS include riverbank restoration, sustainable urban drainage systems (SUDS), constructed urban wetlands, the regeneration of urban green belts, or bioretention ponds.

The NICHES project brings together a unique consortium of European (and American) partners that aims to demonstrate that sustainable transformations of cities based on restorative NBS which enhance water retention capacities in urban areas could widely mitigate impacts from combined sewers on aquatic ecosystems.

### DATA PROTECTION

Under the EU General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679) the collection, processing and use of personal data is permissible only if a legal provision allows or stipulates or the person concerned has consented to it. By signing this consent form, you hereby consent to NICHES collecting, processing, and using your personal data given within this activity for the sole purposes of research undertaken in the BiodivRestore program NICHES project (Grant Agreement PCI2022-133011). Participation is voluntary and your input

will be kept confidential for a period of five years before its destruction. Should you require further information or wish to exercise your rights under the EU GDPR (e.g. to access, rectify, or delete your data), please contact the NICHES team at [[insert your organisation's Data Protection Officer's name and email](#)]. By contacting the data protection officer, you can also withdraw consent provided at any time. We do not pass on your personal data to third parties unless we are entitled to do so or you have given us your consent. Due to the international nature of the NICHES project, personal data may be processed in jurisdictions that may *not offer the high level of data* protection in Europe, pursuant to Article 49 (1) a of the GDPR. You can find more information about the collection, processing and use of personal data in <https://niches-project.eu/>

### **Consent Form**

This form is to make sure that you have been given information about the NICHES research project (see Project Information Sheet).

- I have been given a copy of the NICHES information sheet, explaining the NICHES project and the different types of research it is carrying out.
- I am willing to attend and participate in project events and provide my professional opinion on the topics presented.
- I understand the purpose of the research and how my input will be integrated and used within the project.
- I understand and give consent to release my personal data for research purposes and for the organisation of stakeholder events of the project.
- I understand that any information I provide will be anonymous and I will not be personally identified in any reports, papers or other documents produced in relation to this project, unless I give explicit consent to do so.
- I understand that I can withdraw my consent to participate at any time.
- I understand that I will be given information about the outcomes of the project either at the workshops or separately on request to the researchers who invited me to participate.
- In particular, I understand that the researchers will take notes of the meetings, and may take photos to document the meeting. I agree to have my photo shared for project dissemination purposes, and will notify a project partner should I wish to opt out of any group photos.
- I understand that meetings or interviews might be recorded for internal use but will not be shared with third parties. I understand that I will be asked explicitly again at the beginning of the meeting or interview to give my consent to the recording.
- I agree to participate on this basis and understand that this consent form will be stored securely and separately from notes and photos of the meetings I attend.

Name

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Place, Date, Signature

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