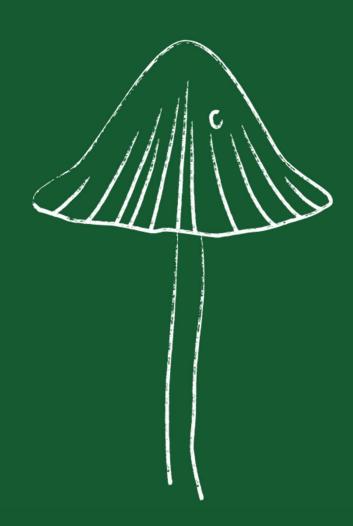


D1.4 31/07/2025

# Data Management Plan (DMP)

Authors: Helen Cole (UAB), Paula de Prado-Bert (UAB), Carola Domènech-Panicello (UOC)

Document identifier **D1.**4 Version **01**Dissemination status **Public** 







## OEI – Requirement No. 1

| Grant Agreement no       | 101084198  |  |
|--------------------------|--|--|
| Project acronym          | GreenME  |  |
| Project title            | Advancing Greencare in Europe: an integrated multi-scalar approach for the expansion of nature-based therapies to improve mental health equity   |  |
| Call                     | Resilient, inclusive, healthy and green rural, coastal and urban communities (HORIZON-CL6-2022-COMMUNITIES-02-twostage)  |  |
| Topic                    | HORIZON-CL6-2022-COMMUNITIES-02-02-two-stage -<br>Developing nature-based therapy for health and well-being  |  |
| Project Duration         | 01/09/2023 — 31/08/2027  |  |
| Coordinator:             | Universitat Autònoma de Barcelona (UAB)  |  |
| Associated Beneficiaries | <ul> <li>Alma Mater Studiorum – Universita Di Bologna (UNIBO)</li> <li>Sveriges Lantbruksuniversite (SLU)</li> <li>ILS Research GGMBH (ILSR)</li> <li>Szkola Glowna Gospodarstwa Wiejskiego (SGGW)</li> <li>Old-Continent (OC)</li> <li>Fundacja Neurolandscape (NL)</li> <li>Gesellschaft Für Gartenbau und Therapie (GGUT)</li> <li>Instytut Psychiatrii I Neurologii (IPIN)</li> <li>Wetterholm Petra (SHINRIN-YOKU)</li> <li>ETA BETA Cooperativa Social (ETA BETA)</li> <li>Stadt HERNE (HERNE)</li> <li>Asociación Española de Horticultura y Jardinería Social y Terapéutica (AEHJST)</li> <li>Universitat Oberta de Catalunya (UOC)</li> </ul> |  |
| Associated Partners      | <ul> <li>University of Kent (UNIKENT)</li> <li>The University of Salford (USAL)</li> <li>Social Farms and Gardens (SF&amp;G)</li> <li>Mind in Bexley and East Kent LTD (MBEK)</li> <li>Oregon Health &amp; Science University-Portland State University (OSHU PSU)</li> </ul>  |  |



# Project n. 101084198

Advancing Greencare in Europe: an integrated multi-scalar approach for the expansion of nature-based therapies to improve mental health equity.

#### HISTORY CHART

| Issue | Date       | Changed page(s)   | Cause of change | Implemented by |
|-------|------------|---|-----------------|----------------|
| 0.1   |            | -   | Draft           |                |
| 1.0   | 28/02/2024 | All   | Version 1.0     | UAB            |
| 2.0   | 11/07/2025 | All (updated<br>data collected<br>for WP2, plans<br>for WP3 and<br>WP4, and<br>added data<br>collection plans<br>for WP5) | Version 2.0     | UAB            |

#### **VALIDATION CHART**

| No. | Action   | Beneficiary | Date       |
|-----|----------|-------------|------------|
| 1   | Prepared | UAB         | 16/02/2024 |
| 2   | Reviewed | ОС          | 23/02/2024 |
| 3   | Released | UAB         | 28/02/2024 |
| 4   | Prepared | UAB         | 11/07/2025 |
| 5   | Reviewed | NL          | 16/07/2025 |

Disclaimer: The information in this document is subject to change without notice. Company or product names mentioned in this document may be trademarks or registered trademarks of their respective companies.

#### All rights reserved.

The document is proprietary of the GREENME consortium members. No copying or distributing, in any form or by any means, is allowed without the prior written agreement of the owner of the property rights.

This document reflects only the authors' view. The European Commission is not liable for any use that may be made of the information contained herein.



# **Table of Contents**

| DAT       | A MANAGEMENT PLAN (DMP)  | 1        |
|-----------|--|----------|
|           | HORS: HELEN COLE (UAB), PAULA DE PRADO-BERT (UAB), CAROLA DOMÈNECH-PANICELLO (UOC).  |          |
| PRC       | DJECT N. 101084198   | 3        |
|           |  |          |
|           | ANCING GREENCARE IN EUROPE: AN INTEGRATED MULTI-SCALAR APPROACH FOR THE EXPANSION OF |          |
|           | URE-BASED THERAPIES TO IMPROVE MENTAL HEALTH EQUITY                                  |          |
|           | TORY CHART   |          |
| VAL       | IDATION CHART  | 3        |
| <u>1.</u> | INTRODUCTION   | <u>5</u> |
| 2.        | CHANGES TO THE DATA MANAGEMENT PLAN SINCE VERSION 1                                  | 5        |
| 3.        | DATA SUMMARY   |          |
|           |  |          |
| <u>4.</u> | PROCEDURES TO ENSURE FAIR DATA   | <u>9</u> |
| 4.1       | Making data Findable   | 10       |
| 4.2       | Making data Accessible   |          |
| 4.3       | Making data Interpretable  | -        |
| 4.4       | Making data Re-useable   |          |
|           |  |          |
| <u>5.</u> | ALLOCATION OF RESOURCES  | 12       |
|           |  |          |
| <u>6.</u> | DATA SECURITY  | 13       |
|           |  |          |
| <u>7.</u> | ETHICS ASPECTS   | 13       |
|           |  |          |
| 8.        | INTELLECTUAL PROPERTY  | 14       |
|           |  |          |
| 9.        | OTHER ISSUES   | 14       |
| _         |  |          |
| 10.       | ANNEXES  | 15       |
|           |  |          |
| 10.3      | · · · · · · · · · · · · · · · · · · ·  |          |
| 10.2      | ,  |          |
| 10.3      | 3 ETHICS APPROVAL FROM THE ETHIS COMMITTEE OF THE UAB                                | 24       |



### 1. Introduction

This data management plan (DMP) details the procedures for managing data collected as part of the GreenME project. GreenME aims to identify ways in which effective nature-based therapy and a broader green care framework can be scaled-up to improve adult mental health and wellbeing equity while contributing to multiple socio-ecological co-benefits The DMP has been elaborated following the Template of Horizon Europe (See Annex 9.1).

To reach the overall goal of GreenME, research data will be collected in WP2, WP3, and WP4, and WP5 (which will also be informed by the data collected in the previous WPs). This second version of the DMP is part of WP1 (Project coordination and management), and consists of an updated version of D1.2. This data management plan will be continually reviewed and updated with one further version forming D1.5 (final version of the DMP).

# 2. Changes to the Data Management Plan since Version 1

This is an updated version of the GreenME Data Management Plan and includes revisions and additions of D1.2. The primary changes in this version include new details about the data being collected in WP3 and WP4 and WP5 (which was not included in D1.2). As these WPs have advanced their data collection protocols and plans since the initial version, we now have more details about the types of data collected.

Of note, for WP4, we include new information about the data collection procedures in which the lead partner for WP4, UKent, will be collecting all primary data directly via Qualtrics with support from all other WP partners. Previously, we envisioned WP4 data collection to be the responsibility of each country partner and that we would transfer the data to UNIKENT once anonymized for final analysis. The new plan streamlines WP4 data cleaning and processing. This plan has been approved by the respective ethics committees in each country as well as our external ethics advisor.

We also clarify in this version that D2.4 (a database of transcripts from qualitative interviews) will be changed to Sensitive rather than Public due to the non-anonymizability of the data in this deliverable.

No new risks have been identified since the writing of D1.2.

# 3. Data Summary

Data collected by GreenME partners will consist of both qualitative and quantitative data from primary (collected specifically to meet GreenME aims, by GreenME partners) and secondary (data existing prior to the project collected by other entities or for other



purposes which will be re-used by GreenME partners to address GreenME aims) sources. GreenME will use existing data where it exists and can be used to address GreenME research questions. These data will be linked to data generated by the project.

The data will be used for various purposes throughout the project. In WP2, we will evaluate the grey literature and stakeholder interviews to understand the status of green care, as well as how and to what extent green care is integrated in healthcare systems. In WP3, data will be used to evaluate the effectiveness and cost-effectiveness of nature-based therapies for improving adult mental health. In WP4, we will capture map data and satellite imaging, linked to survey data collected in another task of WP4by the team, to evaluate the extent and quality of greenspace in the study areas. In WP5, data collected will include observations and inputs from stakeholder engagement processes which will be used to formulate country-specific quidelines for scaling up green care. Data in WP2, WP3 and WP4 will include interviews and surveys with study participants who are recruited to participate specifically in GreenME. In WP2, participants will include experts and stakeholders involved in green care provision in each study site. In WP3, participants will be recruited from among those enrolling in already existing nature-based therapy programs in study sites. In WP4, survey data will be collected from among those living in geographic areas identified as study areas. Reused data will be collected from: publicly available grey literature (WP2), maps and satellite images from existing public use datasets and other sources (WP4).

Currently (M<sub>22</sub>), data collection has been completed for WP<sub>2</sub> and recruitment is underway for WP<sub>3</sub> and WP<sub>4</sub>.

By Work Package, the following data has been collected to date:

| WP2  |  |   |              |
|--|--|---|--------------|
| Data   | Type/Description   | Size of Data  | Lead partner |
| Main stakeholder<br>groups related to<br>green care (Task<br>2.1, D2.1)          | Primary qualitative, lists<br>of main stakeholders in<br>each partner country  | An excel sheet for each partner country involved in the project. The number of stakeholders differs among countries from 20-300 from each of the 9 study regions but the variables collected are the same across all countries. | SSGW         |
| Status of green care implementation (Task 2.2, D2.4 and informing D2.2 and D2.3) | Primary qualitative, semi-<br>structured interview and<br>focus group data.  Secondary (re-used)<br>qualitative, grey literature | A total of 117 interviews across all study areas were conducted. A total of 582 items of grey literature across all study areas were collected.   | SSGW         |



The collection of the following data has been planned and will be collected during the second half of the project:

| WP <sub>3</sub>  | ,   |   |                  |
|--|---|---|------------------|
| J<br>Data  | Type  | Size of Data  | Lead partner     |
| Nature-based therapy evaluation data (Task 3.3, following protocols (D3.2 and D3.3) and study data collection tools developed in Task 3.2) | Primary quantitative, pre- and post- health, mental health, demographic/social data collected via standardized surveys; activities, natural environmental characteristics, social environment for each therapy program evaluated.  Primary qualitative interview data | Data will be collected from participants at 7 sites. Data will be collected from at least 78 participants in each site (this size is estimated according to | Lead partner UOC |

| WP4               |                       |                          |              |
|-------------------|-----------------------|--------------------------|--------------|
| Data              | Туре                  | Size of Data             | Lead partner |
| Survey data (Task | Primary quantitative, | In WP4, survey data will | UNIKENT      |
| 4.2, D4.2 and     | demographic, socio-   | be collected from        |              |
| informing D4.4)   | economic, health and  | approximately 1000       |              |
|                   | mental health data,   | individuals in each      |              |
|                   | awareness of value of | study site (a total of   |              |



|                                  | nature contact via<br>standardized<br>questionnaire                        | approximately 10,000 individuals across all study sites). The number of datapoints collected for each participant will be determined through the development of the survey for WP4, which will occur in the second half of 2025. This survey data will be linked to area level socioecological and greenspace data (see task 4.3). |         |
|----------------------------------|--|--|---------|
| Spatial data (Task<br>4.3, D4.3) | Secondary and primary<br>quantitative (spatial),<br>maps, satellite images | These data will be linked to survey data from Task 4.2.  Additional maps of the locations of NEL and NBP programs and resources in each site will be produced and shared with stakeholders.  | UNIKENT |

| WP <sub>5</sub>  |                             |   |              |
|--|-----------------------------|---|--------------|
| Data   | Туре                        | Size of Data  | Lead partner |
| Recording of workshops (transcription), photos taken during the workshops and results from Miro Board (online) or photos of the whiteboard with sticky notes (inperson) that will inform summary reports of each workshop and will be analysed and form the basis for national schemes | Primary qualitative<br>data | In each partner country, a country chapter of 10 to 15 stakeholders will be recruited. Approximately 6 meetings will be held in each partner country. | ILSR         |



| and guidelines<br>(informing D5.1 and<br>D5.3)  |   |   |      |
|---|---|---|------|
| Gender/diversity information of workshop participants.  | Primary quantitative data                 | Will include data for the approximately 10 to 15 participants in each country chapter | ILSR |
| Online survey of stakeholders who are participating country chapter workshops as well as a separate survey of end-users (to be decided) | Primary quantitative and qualitative data | Will include data for the approximately 10 to 15 participants in each country chapter | ILSR |

In addition to the lead partner for each task, additional study partners will collect data in each WP. Data collection for WP2, WP3, WP4 and WP5 focus on stakeholders at the national and local level (WP2), specific nature-based therapy programs (WP3) and specific geographic areas (WP4 and WP5). Data collection protocols for each WP will be standardized across sites (overseen by the task lead partner) with adjustments made when necessary to account for differences in type of setting. For each WP, the lead partner will oversee the development of and adaptation of the protocol for study data collection across partners and settings. In each WP, the lead partner will also oversee how data is collected, stored (in the cloud-based secure storage system of the project, Microsoft Teams-UAB-GreenME) and analyzed, and will ensure that the appropriate ethics approvals are obtained.

GreenME will adhere to the GDPR guidelines, including minimising data storage so that only necessary data is maintained thereby reducing the ecological cost of data management. The digital size of data will be reported in the final DMP.

GreenME data may be useful to other researchers concerned with the link between greenspace and health, with the effectiveness of nature-based therapies, or with non-traditional therapies integration into the healthcare systems. GreenME data may also be useful to policy makers and governments, particularly those located in areas where the study was conducted.

# 4. Procedures to ensure FAIR data

GreenME will adhere to the FAIR data guidelines of Horizon Europe. That is, the project will ensure that data is Findable, Accessible, Interpretable, and Re-useable to the extent possible.



### 4.1 Making data Findable

In order to make data produced and re-used by GreenME *findable*, data will be discoverable through metadata, key words, using a pre-specified file naming system (see below) and assigning Digital Object Identifiers (DOI) to study datasets, once the data is made processed and made public. DOI identifiers will be assigned to each dataset. Metadata for each dataset will be created using the Dublin Core standard (see <a href="https://www.dublincore.org/specifications/">https://www.dublincore.org/specifications/</a>, or equivalent metadata standard) a generic standard appropriate across disciplines. Key words will be included in the metadata following an established thesaurus (e.g., MESH terms, or similar) to allow for discoverability.

To ensure that the data is easy to find after the study ends, some guidelines will be established from the start regarding naming and versioning conventions of files and folders, which will simplify the data management processes during the study. A file and data naming convention will be employed across the study (see Annex 9.2).

## 4.2 Making data Accessible

In order to ensure that GreenME data is *accessible*, we will follow the mantra and GDPR guideline "as open as possible, as closed as necessary". GreenME data will be made publicly accessible when possible, in formats that do not jeopardize the anonymity or privacy of study participants, particularly with regard to mental health and other sensitive information. Anonymized datasets will be deposited in a trusted repository such as the Digital Deposit of Documents of the UAB (<a href="https://ddd.uab.cat">https://ddd.uab.cat</a>), CORA (<a href="https://dmp.csuc.cat/">https://dmp.csuc.cat/</a>) or Zenodo (<a href="https://zenodo.org/">https://zenodo.org/</a>). Processes for storing and accessing data will also be reviewed by the ethics committees of each study partner collecting data and by the ethics advisor to ensure the ethical handling of data. Initial ethics approval for the project has been obtained from the ethics committee of the lead partner (Universitat Autònoma de Barcelona; see annex), and additional approvals have been sought for those collecting data in WP2, WP3, and WP4.

An embargo will be applied for up to 2 years after the end of the study or until the primary publications of results from the GreenME study are published. The data will be maintained and available according to the following guidelines for at least 5 years following the end of the study.

The following information will be shared openly upon request:

- The processed datafiles that support results published in scientific publications.
- Related documentation (i.e., metadata, codebooks, ontologies) related to the data; and
- The analysis code to reproduce and validate the quantitative results of published articles. This code will be provided in the coding language of the software used to analyze the data, which will also be specified.

The following data are not expected to be shared:



- The original raw data collected from the evaluation of nature-based therapy programs in WP<sub>3</sub>.
- Any non-anonymized digital research data (e.g., any data containing personal identifying information).
- Qualitative interview and focus group data such as sound recordings or transcripts.

Data which will be considered open research data and will be made available in an open data repository:

- Processed, anonymized data files from WP<sub>3</sub> and WP<sub>4</sub> (after any corrections, conversions or deletions or imputations are complete) and their metadata.
- Note: Data from WP2 is either already publicly available (grey literature) or is qualitative data that cannot be properly anonymized.

## 4.3 Making data Interpretable

To support the *interpretability* of GreenME data, we will use standard formats (.csv, .doc, .pdf, .jpg, .txt), and file names and information will not include any special characters. Metadata will be gathered and published for each dataset using Dublin Core (or similar) standards. The metadata will serve as a guide to understanding what the data is, how it is organized, and how it can be used.

In addition, for each dataset, a codebook will be created which includes definitions of each variable along with any information for the units of measurements used (see Annex 9.2 for more information on the format and structure of codebooks). Terminology will be agreed upon by all consortium partners. As the consortium is multidisciplinary, we have already started the process of creating a glossary of terms related to the content of the project. The GreenME glossary will also be available open source.

### 4.4 Making data Re-useable

GreenME data may be *re-useable* in certain scenarios. Datasets that are shareable (i.e., those processed as described above, such that the identity and personal identifiable information of all study participants is protected) will be accessible via trusted repositories as described above. In order to facilitate the potential re-use of data, each dataset will include the necessary metadata and codebooks necessary to understand and use the data. All file types for this documentation will be in standard formats and a readme files with information on methodology (and provenance), codebooks, data cleaning, analyses, variable definitions, units of measurement will be included in line with the obligations set out in the Grant Agreement (Articles 15 and 16).

As the data will be available through at least one repository, it will be available also for use by third parties.



Data quality will be assured and monitored throughout the project at multiple levels. Each deliverable (including the datasets themselves) will be reviewed by the task leader, the project co-coordinators, and by a second reviewer from within the consortium prior to submission to the EC, publication and uploading on the data repositories. These reviewers will have the necessary expertise to determine the quality of the data and other outputs.

Outputs other than data from the project include publications but also country guidelines for scaling up green care (WP5), a training programme for nature-based therapy providers (WP5), communication materials (WP6), a green care network list document (WP6) and a policy brief document (WP6). All materials produced in WP6, the country guidelines, and project publications will be downloadable from the project website. After the initial pilot training program, materials will be improved based on evaluation and feedback from the pilot and the materials will be open access and on the project website.

# 5. Allocation of resources

Costs associated with making the research data FAIR will be incurred to some extent by each study partner. We do not anticipate costs aside from person time (covered by the grant) associated with processing the data and making it FAIR as free resources will be used to make the data available. The cost of personnel is distributed among the grantees by Work Package to those who will be responsible for collecting, preparing, and managing the data. The costs of processing, storing, and merging final datasets and preparing them for public access will be accrued by the institutions of the WP leaders and UAB, which will be responsible for making final processed datasets (processed by the WP leaders, according to the deliverables and tasks of their WPs) available to the public by publishing them in the public access repositories. This will be done only after the WP leader agrees that the data is complete. WP leaders will also specify any embargo period necessary for the deliverables of their WP.

As data will be collected in different WPs and in different study sites in each consortium country, the responsibility for data management will be shared across WP leaders, site data collection leaders in each country/study site and overseen by the co-scientific coordinators of the consortium (Drs. Margarita Triquero-Mas and Helen V.S. Cole).

As required for Horizon Europe projects, the data collected and produced within GreenME will be kept for at least 5 years following the end of the project. The data will be stored during this time using the resources and infrastructure of the UAB (the coordinating institution). We do not anticipate any changes to the data needed after the conclusion of the project but in the case that changes are needed, these will be the responsibility of the coordinating institution and of the Work Package leader for each associated dataset.



# 6. Data security

The project provides access to a secure cloud storage site (i.e. Microsoft Teams-UAB-GreenME) for consortium partners only (budget is reserved for this in the project coordination WP). The GreenME website will be used as a central catalogue to list available datasets (those available via repositories with their DOI and those available upon request), the list of these datasets will also contain a clear and explicit description of the data and, if possible, the metadata file. The project website will also host all public deliverables for the project. The project will also contribute to open science practices by granting: a) immediate open access to unidentifiable grouped GreenME data through a trusted repository such as Zenodo (or the latest at the time of publication) to ensure access after the lifetime of the project, b) scientific and technical publications licensed under CC BY-SA (or equivalent) or CC BY-NC SA (or equivalent) allowed for long-text formats and c) provision of physical or digital access to data or other resources upon request if used to validate conclusions from scientific publications. All data, outputs and results will be accessible via the Oppla portal (the EU repository for nature-based solutions).

In those cases, in which the name of the participant is known an encrypted excel will be created linking the name to a number code, and this number code will be the direct identifier to this participant (for example, for WP3 where multiple time points will be used). Therefore, on the following questionnaires and datasets a number code will be the identifier of the participant, and only specific people from the project will have access to the protected excel that links the number to the personal data.

An external drive will be used to create a security copy of all the documents of the project each month. The external memory will be kept in a locked physical place, which location will only be known by a very small group of people (approximately 4 people including the 2 scientific coordinators-of the project).

The data will be maintained and available for at least 5 years following the end of the study on the GreenME Teams server.

# 7. Ethics aspects

The overall study has been approved by the UAB ethics committee (see Annex 9.3). In addition, each partner responsible for collecting data at the local level will be required to obtain ethics committee approval prior to beginning data collection. In general ethics committee approval will be sought in each country by the partner collecting data. Exceptionally, in the case of non-academic partners (i.e., GGuT, SHINRIN-YOKU, ETA BETA, HERNE, AEHJST, SF&G, MBEK) if they do not have their own ethics committees, ethics approval may be sought by the academic partner working closely with these non-academic partners at each study site specifying that data will be also collected by these specific non-academic partners. Upon approval, ethics approval certificates will be sent



by each partner to the lead partner for each WP and to the coordinating partner (UAB) to be stored.

Of note, in WP4, data is collected via the Qualtrics platform online administered by the University of Kent. As such, ethics approval was sought by the University of Kent and for other institutions only where it was indicated as necessary by the local institutions. Those local institutions where ethics approval was deemed unnecessary provided a letter of exemption to be filed with the University of Kent ethics application.

GreenME also has an external ethical advisor, Prof. Constantin Vica, who will conduct a periodic review and report of the status of the study ethics. His initial periodic review was submitted and approved as part of the first review period.

Details involving the ethical issues of the project and how they will be managed can be found in the already completed Legal and Ethics Management Handbook (D1.3).

# 8. Intellectual property

Unless otherwise specified, the copyright and intellectual property rights of the data generated by the GreenME project will remain with the consortium. More details can be found in the Article 16 "Intellectual Property Rights (IPR) – Background and Results – Access Rights and Rights of Use" of the Grant Agreement.

# 9. Other issues

As the consortium includes partners external to the EU, separate funders will be involved (along with their separate data management procedures, if different). These include partners in the UK, funded by UKRI and a partner in the USA. Those partners funded by external entities will be responsible for ensuring that the guidelines in this DMP meet the requirements of their funders and any amendments to the DMP needed will be made to fit any different or additional guidelines.



## 10. Annexes

# 10.1 Horizon Europe Data Management Plan Template/ FAIR data plan

The template used to elaborate this DMP can be found at <a href="https://enspire.science/wp-content/uploads/2021/09/Horizon-Europe-Data-Management-Plan-Template.pdf">https://enspire.science/wp-content/uploads/2021/09/Horizon-Europe-Data-Management-Plan-Template.pdf</a> and pasted below.



EU Grants: Data Management Template (HE):V1.0 - 05.05.2021
The Horizon Europe Model Grant Agreement requires that a data management plan ('DMP') is established and regularly updated.
The use of this template is recommended for Horizon Europe beneficiaries. In completing the sections of the template the requirements for research data management of Horizon Europe as described in article 17 and analysed in the Annotated Grant Agreement, article 17, must be addressed.

#### Data Summary

Will you re-use any existing data and what will you re-use it for? State the reasons if re-use of any existing data has been considered but discarded.

What types and formats of data will the project generate or re-use?

What is the purpose of the data generation or re-use and its relation to the objectives of the project?

What is the expected size of the data that you intend to generate or re-use?

What is the origin/provenance of the data, either generated or re-used?

To whom might your data be useful ('data utility'), outside your project?

#### 2. FAIR data

#### 2.1. Making data findable, including provisions for metadata

Will data be identified by a persistent identifier?

Will rich metadata be provided to allow discovery? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

Will search keywords be provided in the metadata to optimize the possibility for discovery and then potential re-use?

Will metadata be offered in such a way that it can be harvested and indexed?

#### 2.2. Making data accessible

Repository:

Will the data be deposited in a trusted repository?

Have you explored appropriate arrangements with the identified repository where your data will be deposited?

Does the repository ensure that the data is assigned an identifier? Will the repository resolve the identifier to a digital object?

Data:

Will all data be made openly available? If certain datasets cannot be shared (or need to be shared under restricted access conditions), explain why, clearly separating legal and contractual reasons from intentional restrictions. Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data dosed if opening their data goes against their legitimate interests or other constraints as per the Grant Agreement.

If an embargo is applied to give time to publish or seek protection of the intellectual property (e.g. patents), specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible

Will the data be accessible through a free and standardized access protocol?

If there are restrictions on use, how will access be provided to the data, both during and after the end of the project?

How will the identity of the person accessing the data be ascertained?

Is there a need for a data access committee (e.g. to evaluate/approve access requests to personal/sensitive data)?

Will metadata be made openly available and licenced under a public domain dedication CC0, as per the Grant Agreement? If not, please clarify why. Will metadata contain information to enable the user to access the data?

4



EU Grants: Data Management Template (HE):V1.0 - 05.05.2021

How long will the data remain available and findable? Will metadata be guaranteed to remain available after data is no longer available?

Will documentation or reference about any software be needed to access or read the data be included? Will it be possible to include the relevant software (e.g. in open source code)?

#### 2.3. Making data interoperable

What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and re-use within and across disciplines? Will you follow community-endorsed interoperability best practices? Which ones?

In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them?

Will your data include qualified reference s1 to other data (e.g. other data from your project, or datasets from previous research)?

#### 2.4. Increase data re-use

How will you provide documentation needed to validate data analysis and facilitate data re-use (e.g. readme files with information on methodology, codebooks, data cleaning, analyses, variable definitions, units of measurement, etc.)?

Will your data be made freely available in the public domain to permit the widest re-use possible? Will your data be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

Will the data produced in the project be useable by third parties, in particular after the end of the project?

Will the provenance of the data be thoroughly documented using the appropriate standards?

Describe all relevant data quality assurance processes.

Further to the FAIR principles, DMPs should also address research outputs other than data, and should carefully consider aspects related to the allocation of resources, data security and ethical aspects.

#### 3. Other research outputs

In addition to the management of data, beneficiaries should also consider and plan for the management of other research outputs that may be generated or re-used throughout their projects. Such outputs can be either digital (e.g. software, workflows, protocols, models, etc.) or physical (e.g. new materials, antibodies, reagents, samples, etc.).

Beneficiaries should consider which of the questions pertaining to FAIR data above, can apply to the management of other research outputs, and should strive to provide sufficient detail on how their research outputs will be managed and shared, or made available for re-use, in line with the FAIR principles.

#### 4. Allocation of resources

What will the costs be for making data or other research outputs FAIR in your project (e.g. direct and indirect costs related to storage, archiving, re-use, security, etc.)?

How will these be covered? Note that costs related to research data/output management are eligible as part of the Horizon Europe grant (if compliant with the Grant Agreement conditions)

Who will be responsible for data management in your project?

How will long term preservation be ensured? Discuss the necessary resources to accomplish this (costs and potential value, who decides and how, what data will be kept and for how long)?

#### 5. Data security

What provisions are or will be in place for data security (including data recovery as well as secure storage/archiving and transfer of sensitive data)?

Will the data be safely stored in trusted repositories for long term preservation and curation?

<sup>&</sup>lt;sup>1</sup> A qualified reference is a cross-reference that explains its intent. For example, X is regulator of Y is a much more qualified reference than X is associated with Y, or X see also Y. The goal therefore is to create as many meaningful links as possible between (meta) data resources to enrich the contextual knowledge about the data. (Source: https://www.go-fair.org/fair-principles/i3-meta data-include-qualified-references-metadata/).



EU Grants: Data Management Template (HE):V1.0 - 05.05.2021

#### 6. Ethics

Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? These can also be discussed in the context of the ethics review. If relevant, include references to ethics deliverables and ethics chapter in the Description of the Action (DoA).

Will informed consent for data sharing and long term preservation be included in questionnaires dealing with personal data?

#### 7. Other issues

Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones (please list and briefly describe them)?



### 10.2 File/data naming quidelines for GreenME

#### Naming of documents (word, pdf, excel...)

Files will be named with the following structure:

- Project name (GreenME)
- To\_o (when the document refers to a task, e.g., T2\_2) or Do\_o (when the document will be a deliverable D2\_2). The period ('.') is a special character that may not function as intended, therefore, we utilize the underscore ('\_').
- Topic (content of the document). No longer than 20 characters.
- Country or region of study. *IMPORTANT:* When writing common documents such as deliverables, it is unnecessary to include the country or region of study.
- Date of creation (YYYYMMDD)
- Version of the document (v1, v2, v3, v4...), which will change every time there is a modification. How to proceed for making changes:
  - 1. Make a copy of the document.
  - 2. Save the oldest on a separate folder called "old".
  - 3. Open the new document, make the changes on the new document and adapt the name accordingly:
    - O Change the **version number**. Update the **date** to the day on which the change has been made (e.g., \_20240209\_v1 --> 20240209\_v2 if the version was changed the same day, and \_20240209\_v1 --> 20240210\_v2 if the version was changed in different days).

#### Remember:

- Use capitals and underscore.
- Do not use spaces, commas, periods, slashes, nor special characters: ! @ # \$ % ^ & \* ( ) `; : < > ? . , [ ]  $\{ \}$  ' " |
- Try not to make file names too long. Operating systems have different limits to the number of characters. Generally, try to aim for a 40–50-character limit
- "Read\_me" documents with detailed info may be needed to accompany files to clarify contents, versions, etc.
- Document all changes made to a document:
  - o In a Microsoft Word file: use the track changes tool:



 In any other file format not accepting track changes: change the date and version number

#### Examples of file naming:

Hypothetic first version of a transcript of an interview of the task 2.2:



- GreenME\_T2\_2\_Transcript\_Interview\_Province\_Barcelona\_Actor1\_20240208\_
   v1
- GreenME\_T2\_2\_Transcript\_Interview\_Bologna\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Oregon\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Warsaw\_Functional\_Area\_Actor1\_2024
   0208 v1
- GreenME\_T2\_2\_Transcript\_Interview\_Ruhr\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Herne\_Focus\_Area\_Actor1\_20240208\_v
- GreenME\_T2\_2\_Transcript\_Interview\_Stockholm\_Metropolitan\_Actor1\_20240 208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Stockholm\_Focus\_Area\_Actor1\_202402 08 v1
- GreenME\_T2\_2\_Transcript\_Interview\_Manchester\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Kent\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Pembrokeshire\_Actor1\_20240208\_v1
- GreenME\_T2\_2\_Transcript\_Interview\_Wales\_Actor1\_20240208\_v1

#### Example of the deliverable 2.1:

GreenME\_D2\_1\_Green\_Care\_Actor\_Map\_20230209\_v1

*Note*: Use track-changes when editing a document. If there may be more than one person working simultaneously on offline versions of a document, communicate with each other regarding file naming and/or save a copy adding your initials to the end of the file name so that the final version with all edits can be resolved.

#### Naming of datasets files

Datasets will be named with the following structure:

- Project name (GreenME)
- To\_o (when the document refers to a task, e.g., T2\_2) or Do\_o (when the document will be a deliverable D2\_2). Consider that a "." is a special character and doesn't work, therefore we use "\_"
- Topic (content of the document) with the word "Dataset" after. No longer than 20 characters.
- Country or region of study. *IMPORTANT: When writing common documents such as deliverables, it is unnecessary to include the country or region of study.*
- Date of creation (YYYYMMDD) or modification
- Version number

*Note:* After making changes to the document, save a new copy with the new date and version number.

#### Remember:

- Always have a codebook for each dataset. A codebook is an excel file divided by columns in which you explain each variable presented in the dataset.
  - o *First column*: variable (e.g., participant identifier, gender identity or age in years in baseline)



- Second column: name of the variable within the dataset (e.g., id, gender\_identity or age\_years\_baseline)
- Third column: type of variable (continuous or categorical) (e.g., categorical (gender) or continuous (age))
- Forth column: categories of the variable in case the variable is categorical (gender identity = 4 categories (1. Female, 2. Male, 3. Non-binary, 4. Prefer not to answer)) and units in case the variable is continuous (age = years at baseline)
- Fifth column: explanation of the variable collected (gender identity collects information on which is the gender to which the participant is most identified, age collects information on the age in years at baseline of the participant)
- o Sixth column: question from which the variable was obtained
  - To which gender you identify most:
    - Female
    - Male
    - Non-binary
    - Prefer not to answer
  - Age in years \_\_\_\_\_
- Seventh column: Labeling of the categorical variable, so you need to determine to which number corresponds each category of the variable (for further analyses and studies of each)
  - Gender identity
    - Female = 1
    - Male = 2
    - Non-binary = 3
    - Prefer not to answer = 4
- o Eight column: comments in relation to the variable?
- Use capitals and underscore.
- Do not use spaces, commas, periods, slashes, nor special characters: ! @ # \$ % ^ & \* () `;: <>?.,[]{}'"|
- Try not to make file/database names too long. Operating systems have different limits to the number of characters. Generally, try to aim for a 40–50-character limit
- "Read\_me" documents with detailed info may be needed to accompany files to clarify contents, versions, etc.
- Document all changes made to a document:
  - In any other file format not accepting track changes: save a new copy with the new date and version number "GreenME\_T2\_2\_Track\_Changes\_Interviews\_Coding\_20240215", example template:



| Name of the document                           | Changes made  |
|--|---|
| GreenME_T2_2_Coding_Interview1_20230209_v1.xls |   |
| GreenME_T2_2_Coding_Interview1_20230210_v1.xls | Code "status of green" is now called "status"; Code<br>"underpriviledged" is now called "inequities"                            |
| GreenME T2 2 Coding Interview1 20230215 v2.xls | Codes have been grouped according to the guidelines explained in the document "GreenME T2 2 Grouping Codes Interviews 20230212" |

#### **Examples of dataset files:**

Hypothetic dataset of analysis done for the task 2.2 by the Spanish team:

GreenME\_T2\_2\_Interview\_Analysis\_Dataset\_ Province\_of\_Barcelona\_20240208\_v1

Hypothetic dataset of survey data collected in Manchester: GreenME\_T4\_1\_Survey\_Dataset\_Manchester\_20240229\_v3

#### Naming of folders

#### Naming of GreenME folders by Work Package

Folders of each WP should follow the following structure:

- WPo
- Name of the WP

#### Remember:

- Use capitals and underscore.
- Do not use spaces, commas, periods, slashes, nor special characters: ! @ # \$ % ^ & \* () `; : < >? . , [] { } ' " |
- Try not to make folder names too long. Operating systems have different limits to the number of characters. Generally, try to aim for a 40–50-character limit.

#### Example:

WP1\_Project\_Coordination\_Management

WP2\_Assessment\_Status\_Green\_Care

WP3\_Evaluation\_NBT

WP4\_Nature\_Everyday\_and\_Promotion

WP5\_Co\_Creation\_Policies

WP6\_Communication\_Dissemination\_Exploitation

WP7\_Ethics\_Requirements

#### Naming of folders within each WP folders, and the folders inside:

- Name of the folder:
- Deliverables
  - Do\_o\_Name\_Deliverable (folder)
- Tasks
  - To o Name Task (folder)
    - To\_o\_Name\_Task\_Name\_Study\_Region
- Meetings



MeetingType\_WPo\_YYYYMMDD (document)

#### Remember:

- Use capitals and underscore.
- Do not use spaces, commas, periods, slashes, nor special characters: ! @ # \$ % ^ & \* () `; : <>? . , [] { } ' " |
- Try not to make file names too long. Operating systems have different limits to the number of characters. Generally, try to aim for a 40–50-character limit.

#### Example Proposal for naming folders in case WP2:

- GreenME\_WP2\_Assessment\_Status\_Green\_Care
  - Deliverables
    - o D2\_1\_Green\_Care\_Actor\_Map
    - o D2\_2\_Green\_Care\_Baseline\_Reports
    - o ...
  - Tasks
    - o T2\_1\_Stakeholder\_Identification
    - o T2\_1\_Stakeholder\_Identification\_Provice\_Barcelona
    - o ... (the rest of the countries/regions of study will have their own folder)
    - o T2\_2\_Status\_of\_Green\_Care\_Implementation
      - T2\_2\_Status\_of\_Green\_Care\_Implementation\_Province\_Barcel ona
    - o ... (the rest of the countries/regions of study will have their own folder)
  - Meetings



### 10.3 Ethics approval from the ethis committee of the UAB



Vicerectorat de Recerca

Plaça Acadèmica
Edifici A – Campus de la UAB
08193 Bellaterra (Cerdanyola del Vallès)
Barcelona – Spain
Tel. +34 93 581 35 78
ceeah@uab.cat
http://www.uab.cat/etica-recerca/

#### Research Ethics Committee (CERec)

The Research Ethics Committee (CERec) of the Universitat Autònoma de Barcelona, in a meeting held on 17 November 2023, has agreed to issue a favourable report on the procedure with CEEAH code number 6594 "Advancing Greencare in Europe: an integrated multi-scalar approach for the expansion of nature-based therapies to improve Mental health Equity" submitted by Dra. Paula de Prado Bert in compliance with the ethical and legal requirements for research with humans.

Authorised research activity must be aligned with human rights and dignity, as stipulated in the Convention on Human Rights and Biomedicine, approved by the Council of Europe (Oviedo, 19 November 1997), and ratified by the Spanish Parliament on 5 October 1999. For this reason, the Universitat Autònoma de Barcelona urges its researchers and collaborators to preserve the privacy, dignity and other rights of those who freely consent to taking part in the research.

Participants' personal data must be kept confidential pursuant to applicable Spanish and EU law: Spanish Organic Law 3/2018 of 5 December on the protection of personal data and guarantee of digital rights, and Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

Prepared by:

Name: Núria Pérez Pastor

Position: Secretary of the CERec of the

UAB

Date:

Spark dystamet Jar.

UAB Nortice Parker Parker

UAB Nortice Parker Parker

University of Control and Citizen with 10:55:13

+01'00'

Approved by:

Name: José Luis Molina González Position: President of the CERec of the UAB

Date

Jose Luis 2023.12.05 11:04:19 Molina +01'00'





