

# *FrontAg#Nexus*

**Impact of Climate-Smart and Water-Saving Frontier  
Agriculture on the WEF Nexus in Arid Mediterranean  
Regions**

## **D5.2: Data Management Plan (DMP) 1 (due in Month 6)**

**Lead Authors: Buchenrieder, Gertrud & Biru, Wubneshe (UniBw M)**



**Co-funded by  
the European Union**

**This project (GA n° [2242]) is part of the PRIMA program supported by the European Union.**

## Document Information

|  |   |                 |            |
|--|---|-----------------|------------|
| Grant Agreement No.                    | 2242  |                 |            |
| Project Acronym                        | FrontAg Nexus   |                 |            |
| Project Title                          | Impact of Climate-Smart and Water-Saving Frontier Agriculture on the WEFE Nexus in Arid Mediterranean Regions |                 |            |
| Call                                   | PRIMA Call 2022 Section 1 NEXUS WEFE IA   |                 |            |
| Start – ending date   Project Duration | 01 May 2023 – 30 April 2026   36 months   |                 |            |
| Project Website                        | frontagnexus.eu   |                 |            |
| Project Coordinator                    | Gertrud Buchenrieder [Universität der Bundeswehr München (UniBw M)]   |                 |            |
|  |   |                 |            |
| Work Package                           | WP5 “Project coordination, management, and ethics”  |                 |            |
| WP Lead Beneficiary                    | Universität der Bundeswehr München (UniBw M)  |                 |            |
| Deliverable   Version   Status         | D5.1 Project Management Plan (PMP)  |                 |            |
| Lead Author                            | Buchenrieder, Gertrud (GB) & Biru, Wubneshe (WB) (UniBw M)  |                 |            |
| Deliverable type   Dissemination level | R – Report   PU – Public  |                 |            |
| Due Date of Deliverable                | 31.10.2023  | Submission Date | 31.10.2023 |
| Version   Status                       | Final   |                 |            |
| Contributors                           | Ismini Savvaidou (FSH)  |                 |            |
| Reviewer(s)                            | Tanay Sıdkı Uyar, Quality Manager (EUROSOLAR Türkiye)   |                 |            |

*Deliverable type: R: Document, report (excluding the periodic and final reports); DEC: Websites, press & media actions, videos, etc; OTHER: Software, etc.; Dissemination level: PU: Public; SEN: Sensitive; CI: Classified*

### Disclaimer

This publication reflects the views of the author only. European Commission and PRIMA Foundation cannot be held responsible for any use, which may be made of the information contained therein.

### Copyright message © FrontAg Nexus Consortium, 2023

This document contains unpublished original work unless clearly stated otherwise. Previously published material and the work of others has been acknowledged by appropriate citation or quotation, or both. Reproduction is authorised provided the source is acknowledged.

## Document History

| Version | Changes                       | Date       | Contributor                             |
|---------|-------------------------------|------------|---|
| 0.1     | First draft                   | 07.09.2023 | GB & WB (UniBw M)                       |
| 0.1     | Editing & supplementing draft | 11.09.2023 | Ismini Savvaidou (FSH)                  |
| 0.1     | Quality review                | 20.09.2023 | Tanay Sıdkı Uyar<br>(EUROSOLAR Türkiye) |
| 1.0     | Final editing                 | 20.09.2023 | GB (UniBw M)                            |
|         |                               |            |   |

## Participants

**Universität der Bundeswehr  
München**  
(UniBw M), Germany



**aquaponik manufaktur GmbH**  
(APM), Germany



**Foodscale Hub**  
(FSH), Greece



**Ben-Gurion University of the Negev**  
(BGU), Israel

אוניברסיטת בן-גוריון בנגב  
جامعة بن غوريون في النقب  
Ben-Gurion University of the Negev



**University of Bologna**  
(UNIBO), Italy



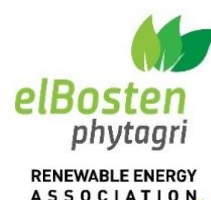
**National Agricultural Research  
Centre**  
(NARC), Jordan



**AgroBiosciences, University of  
Mohamed VI Polytechnic**  
(UM6P), Morocco



**ElBosten Phytagri**  
(ElBosten), Tunisia



**Renewable Energy Association**  
(EUROSOLAR Türkiye), Türkiye



**Bodrum Municipality**  
(Bodrum Municipality), Türkiye



## Executive Summary

The Data Management Plan (DMP) (D5.2) of the FrontAg Nexus project provides guidance to the consortium partners on the dissemination of data and knowledge generated in the project. These data and knowledge elements consist of databases and information that contributed to the project deliverables as well as those used for scientific publications. FrontAg Nexus will generate data through semi-structured and structured cross-sectional as well as panel surveys, focus groups and expert interviews, as well as data collection from the monitoring of the WEFE Nexus related to the prototypes in the demonstration case sites. The rights of the participants will be summarized in an Ethical Framework (living document), whose first version has been presented to the consortium in Month 3.

Primary data produced & processed will be managed so that sampling and data storing does not jeopardize privacy terms. For this reason, a “Survey procedure description for WP3 ‘Socio-economic impacts of the Nexus approach emerging from frontier agriculture’, Task 3.2 “Stratified random sampled survey” has been agreed upon with the data protection office of UniBw M (P1) and a Joint controller Agreement to determine the data controllers’ respective responsibilities for compliance with the obligations under GDPR Art. 26 has been developed and will be signed prior to data collection in WP3. The DMP will cover:

1. Internal data management: The regulation of data transfer between partners based on a pre-determined document-sharing platform, i.e., MS Teams (hosted by UNIBO, P5).
2. External data management: The regulation of data transfer. The external data management also covers FrontAg Nexus project linkage and accessibility via the project website.

The FrontAg Nexus partners are responsible for the data management of their respective tasks with data stored on a secure multi-user online platform managed by Foodscale Hub (P3).

## List of Abbreviations & Acronyms

|          |  |
|----------|--|
| DMP      | Data Management Plan   |
| DoA      | Description of Action  |
| EC       | European Commission  |
| EIP-AGRI | agricultural European Innovation Partnership<br>(ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format)             |
| FGD      | Focus group discussion   |
| GDPR     | General Data Protection Regulation   |
| IEA      | Independent Ethics Advisor   |
| IPR      | Intellectual Property Rights   |
| KERs     | Key exploitable results  |
| openAIRE | European Open Science Infrastructure   |
| ORE      | Open Research Europe ( <a href="https://open-research-europe.ec.europa.eu/">https://open-research-europe.ec.europa.eu/</a> ) |
| SME      | Small and medium enterprise  |
| SRL      | Social readiness level   |
| TB       | Terra byte   |
| TECA     | Technologies & Practices for Small Agricultural Producers ( <a href="http://fao.org/teca/en">fao.org/teca/en</a> )           |
| TRL      | Technical readiness level  |

|       |  |
|-------|--|
| WEFE  | Water-Environment-Food-Energy (WEFE) Nexus |
| WEcoF | WEcoF digital platform (sigma-nexus.eu)    |
| WP    | Work Package                               |

## Table of Contents

|  |    |
|--|----|
| Executive Summary .....  | 4  |
| List of Abbreviations & Acronyms.....                                    | 4  |
| 1 Introduction .....   | 8  |
| <b>1.1 Background</b> .....  | 8  |
| <b>1.2 Abstract of the FrontAg Nexus project</b> .....                   | 8  |
| Figure 3 Mediterranean partner countries with demonstration cases.....   | 9  |
| <b>1.3 Scope of the Data Management Plan</b> .....                       | 9  |
| <b>1.4 Update of the Data Management Plan</b> .....                      | 10 |
| <b>1.5 Document structure</b> .....                                      | 10 |
| 2 Purpose of data collection.....  | 10 |
| <b>2.1 Relation to the objectives of the project</b> .....               | 11 |
| <b>2.2 Data types and formats</b> .....                                  | 12 |
| <b>2.3 Data processing</b> .....   | 14 |
| <b>2.4 Data use</b> .....  | 15 |
| <b>2.5 IPR management</b> .....  | 16 |
| 3 Findable, Accessibility, Interoperable and Re-use (FAIR) data.....     | 17 |
| <b>3.1 Making data findable, including provisions for metadata</b> ..... | 17 |
| 3.1.1 Discoverability of data.....                                       | 17 |
| <b>3.2 Making data accessible</b> .....                                  | 18 |
| 3.2.1 Method of data accessibility .....                                 | 19 |
| <b>3.3 Making data interoperable</b> .....                               | 19 |
| <b>3.4 Increase data-reuse</b> .....                                     | 19 |
| 3.4.1 Timeline for reuse of data .....                                   | 19 |
| 3.4.2 Data usable by third parties .....                                 | 20 |
| 4 Other research outputs .....   | 20 |
| 5 Allocation of resources.....   | 20 |
| 6 Ethics.....  | 20 |
| 7 Other issues.....  | 21 |
| 8 Conclusion .....   | 21 |
| Annex 1 FrontAg Nexus privacy policy .....                               | 22 |
| Annex 2 FrontAg Nexus cookies policy .....                               | 26 |

## Table of Figures

|   |    |
|---|----|
| Figure 1: What is the WEFE Nexus? .....   | 8  |
| Figure 2: Definition of frontier agriculture .....                              | 8  |
| Figure 3 Mediterranean partner countries with demonstration.....                | 9  |
| Figure 4: Overall structure of the work plan and linkages between the WPs ..... | 16 |

## List of Tables

|   |    |
|---|----|
| Table 1: FrontAg Nexus project information and data requirements .....                                  | 12 |
| Table 2: Primary and secondary data sources .....   | 13 |
| Table 3: Protection relevant details on the data to be collected during the FrontAg Nexus project ..... | 14 |



# 1 Introduction

## 1.1 Background

On November 28, 2023, the PRIMA Foundation<sup>1</sup> as part of the European Commission (EC) informed the consortium of the FrontAg Nexus project, submitted under the call “Nexus Management Water-Energy-Food-Ecosystem 2022 (IA)” that the project was selected under Section 1.<sup>2</sup>

As outlined in the Ethics Summary Report of the Description of Action (DoA), Annex 1 of the Grant Agreement, FrontAg Nexus has admitted itself to the monitoring of and adhering to the following ethical requirements and to fulfil related data protection issues throughout the project:

- **Personal data:** The collection and processing of personal data, including the identification of the personal data to be processed, and European general data protection regulation (GDPR) issues and regulations that govern them.
- **Farm animals:** The use of fish (vertebrates) farm animals.
- **Benefit-sharing measures:** Benefit-sharing measures for the low/lower middle-income countries involved in the project.
- **Environment, health, and safety:** Environment and safety issues identified related to the WEFE Nexus.

## 1.2 Abstract of the FrontAg Nexus project

The Mediterranean Region is one of the climate change hotspots in the world due to water scarcity and reliance on climate-sensitive agriculture. Thus, boosting climate change adaptation and mitigation through actions and innovations that reduce pressure on the water, energy, food, and ecosystems (WEFE) Nexus (**Figure 1**), including biodiversity is paramount. FrontAg Nexus responds to this challenge by identifying sustainable frontier agriculture (**Figure 2**) production systems that increase regional food and nutrition security and conserve the environment. Furthermore, factors that foster the adoption of an integrated resource-management approach, considering the interconnections of the WEFE Nexus and the growing population in the Region will be analysed.

### What is WEFE Nexus?

The WEFE Nexus refers to the interconnectedness of water, energy, food, and ecosystems, highlighting the need for integrated approaches to address their interdependencies and achieve sustainable resource management.

**Figure 1: What is the WEFE Nexus?**

Frontier agriculture is an innovative farming approach that uses advanced technologies like hydroponics, aquaponics, insect farming, and vermicomposting to improve resource efficiency and sustainability. It aims to address challenges in traditional agriculture, promote food security, and reduce pressure on water, energy, and land resources.

**Figure 2: Definition of frontier agriculture**

FrontAg Nexus (Impact of Climate-Smart and Water-Saving Frontier Agriculture on the WEFE Nexus in Arid Mediterranean Regions) follows a WEFE Nexus thinking and a multi-actor approach, involving 6 Mediterranean countries (Greece, Italy, Israel Morocco, Tunisia, Türkiye) as well as one of the world’s driest countries, Jordan (**Figure 3**). FrontAg Nexus contributes to the community of practice by identifying, incorporating and sharing frontier agricultural solutions. Frontier agriculture comprises

<sup>1</sup> PRIMA: Partnership for Research and Innovation in the Mediterranean Area.

<sup>2</sup> Topic: 1.4.1-2022 (IA) “Predicting and testing options of socio-economic adaptation to declining Water-Energy-Food-Ecosystem (WEFE) resources in the Mediterranean Region”.

climate-smart and water-saving technologies such as hydroponics, aquaponics, and insect farming (BSF: Black Soldier Fly larvae breeding), whose energy efficiency can be increased through agro photovoltaic. These frontier agricultural solutions are the basis for socio-innovative adaptation experiments (i.e., demonstration cases) because they require limited arable land, water, energy, or wealth and reduce organic waste.

FrontAg Nexus will show that frontier agriculture improves livelihood security by delivering safe and nutritious food and reducing rural-urban migration linked to local resource scarcity. Frontier agriculture is also suitable for urban, refugee, and Bedouin communities. Capacity-development activities will take place at the producer and policy level. At the producer level, this will be done by showcasing positive experiences and establishing a communities-supporting-communities collaboration. At the policy level, FrontAg Nexus will demonstrate how integrating frontier agriculture into the Nexus approach improves not only the environmental but also the socio-economic situation of all stakeholders. FrontAg Nexus guides production and policy transformation in the Mediterranean Region by adhering to the EU Taxonomy Regulation.

To learn more about the FrontAg Nexus project and stay up to date, visit <https://frontagnexus.eu> or <https://mel.cgiar.org/projects/1828> and follow us on social media:

1. [Twitter Account](#)
2. [Facebook Account](#)
3. [LinkedIn Account](#)
4. [YouTube Account](#)
5. [Instagram Account](#)

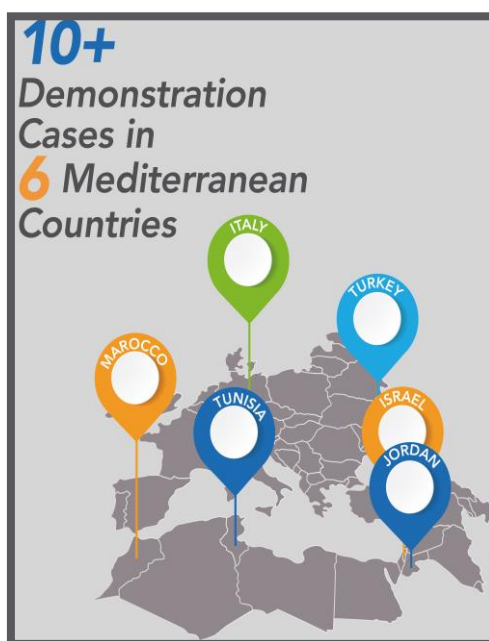


Figure 3 Mediterranean partner countries with demonstration cases

### 1.3 Scope of the Data Management Plan

The scope of the Data Management Plan (DMP) is twofold: (1) The DMP serves as an instructive reference document and a management tool for the FrontAg Nexus partners. (2) The DMP further

clarifies the Description of Action (DoA) by summarizing the data generation plans in the different Work Packages (WPs) and related tasks of FrontAg Nexus.

## 1.4 Update of the Data Management Plan

The DMP is designed as a living document about scheduling, implementation and coordination of interactions between the WPs. If necessary, further updates will be incorporated to consider the jointly agreed changes in terms of management rules or temporal references.

## 1.5 Document structure

This document comprises the following chapters:

**Chapter 1** provides a summary of the project, sets the scope of the DMP, refers to possible updates and outlines the overall structure for better comprehension and readability.

**Chapter 2** describes the purpose of data collection in FrontAg Nexus and the conceptual context.

**Chapter 3** puts the DMP of FrontAg Nexus into the context of guidelines on FAIR Data Management and ensures that research data will be findable, accessible, interoperable and reusable (FAIR).

**Chapter 4** summarizes possible other research outputs.

**Chapter 5** relates the data management and repositories to resources.

**Chapter 6** reviews ethics and data protection issues in FrontAg Nexus.

**Chapter 7** gives space to any other issue and **Chapter 8** concludes the first iteration of the DMP.

## 2 Purpose of data collection

**Regional outreach.** The demonstration case sites of FrontAg Nexus will be established in 1 northern (Italy) and 4 southern Mediterranean countries (Israel, Morocco, Tunisia, Türkiye), as well as in the arid country Jordan.

**Multi-actor approach.** FrontAg Nexus strongly adheres to a bottom-up multi-actor approach as everyone matters and everyone is needed. In this line of thinking, FrontAg Nexus is targeting farming-based stakeholders, including refugees, women and young adults, start-ups, and small and medium enterprises (SMEs) as well as cooperatives within the supply and value chains related to frontier agriculture – not to forget renewable energy practitioners and policy makers.

**Demonstration cases as socio-innovative adaptation experiments.** In line with the multi-actor approach, existing hydroponics, recirculating aquaculture systems (RAS) and/or aquaponics<sup>3</sup>, insect farming, and vermiculture/vermicomposting systems will be identified to establish 10+ demonstration cases in different contexts. Where these frontier agricultural innovations are not available, FrontAg Nexus will establish new demonstration pilots as ‘proof of concept’ with 84+local innovation actors who will be onboarded to the demonstration cases.

**Capacity building, communities-supporting-communities, & resilience.** FrontAg Nexus includes capacity-development activities for technological, business, and WEFE resource management. Mutual learning, realization and mobilization of innovation potential at the farm, community, and policy levels

---

<sup>3</sup> RAS are designed to control the environmental facets of production by continually filtering, treating, and reusing water and thus increasing operational efficiency while reducing risks from pollution and pathogens. Combining RAS with hydroponics (i.e., aquaponics), increases animal welfare and productivity while reducing environmental stress.

will be advanced by focus group discussions (FGDs), policy governance models, and capacity building workshops. Capacity building will be sensitive to social norms. Furthermore, practical information on FrontAg Nexus innovations will be made available as practice abstracts on the agricultural European Innovation partnership (EIP-AGRI) website ([ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format](http://ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format)) and the WEcoF digital platform ([sigma-nexus.eu](http://sigma-nexus.eu)).

**Impact analysis with human participants.** A stratified random sampled structured survey of 120+ respondents in the larger vicinity of the demonstration cases will be employed. The baseline survey will take place in M7, the second and third survey rounds in M19, and M31, respectively. A matching control group (40+ non-adopters) will supplement the database. The enumerators are equipped with portable digital assistants (PDAs) and either KoBoToolbox ([kobotoolbox.org/](http://kobotoolbox.org/)) or Dooblo SurveyToGo ([dooblo.net](http://dooblo.net)), making data available through SSL protected synchronization.

**Developing cross-sectional WEFE Nexus policies.** For frontier agriculture to be established as a WEFE resource management strategy in the Mediterranean Region, perspectives and concerns of stakeholders (incl. policy makers, academic and non-academic experts, entrepreneurs along the supply and value chains) have to be thoroughly understood. A network map representing the relationships between intervening factors will be developed through the Miradi Open Standards tool while validation of interdependencies will be done through FGDs and Delphi studies with relevant key actors.

Based on the above outline multi-actor approach, the data produced include:

- Data of innovation actors onboarded to the demonstration cases.
- Data of farming-based stakeholders, including refugees, women and young adults, start-ups.
- Primary panel data of farming-based stakeholders who have already started with frontier agricultural interventions and a counterfactual group.
- WEFE Nexus data related to the efficacy of frontier agricultural interventions.
- Data of Start-ups, SMEs, cooperatives, renewable energy practitioners, and policy makers in their role as business and WEFE Nexus experts.

In this context, the term 'data' in the FrontAg nexus project refers to evidence, facts and statistics collected and generated during the co-design and co-development as well as the deployment of frontier agricultural innovations in the partner countries with demonstration cases. The data generated from the FrontAg Nexus project will be novel. As this includes collection of personal data in non-EU countries, ethics requirements for involvement of non-EU countries and transfer of personal data in and out of the EU will strictly adhere to the general data protection regulation (GDPR). This also applies to business administration as well as econometric calculations derived from existing datasets or generated by simulation models. Data will be presented together with appropriate information, i.e., scripts.

## 2.1 Relation to the objectives of the project

The data collected and generated during the FrontAg Nexus project will constitute the core aspects of four work packages (WP2-WP4) and provide the foundation for activities relating to lab and field-testing of the prototypes as well as characteristics and impact on innovation actors. **Table 1** illustrates the importance of data collection and generation for each work package.

**Table 1: FrontAg Nexus project information and data requirements**

| WP  | Objectives   | Required / collected data and information  |
|-----|--|--|
| WP2 | <b>Task 2.1:</b> To leverage prototypes/proofs of concept for frontier agricultural innovations, 84+ innovation actors will be onboarded based on the bottom-up multi-actor approach to the 6 Mediterranean countries with 10+ demonstration cases.                                      | Data on innovation actors, prototypes/proofs of concept (technological solution, operational data e.g., pH, TDS, ECond. and temperature, quality and quantity of produced food), participants, and infrastructure. Data on fish stocking density, mortality and harvest.   |
| WP2 | <b>Task 2.2:</b> Evaluation of frontier agricultural innovations based on KPIs related to WEFE Nexus, social readiness level (SRL), and technical readiness level (TRL).   | Practice abstracts.<br>Capacity building.  |
| WP2 | <b>Task 2.3:</b> Participatory evaluation of relevant WEFE indicators by innovation actors in the demonstration cases and municipality officials (possibly through FGDs).  | Data on views and needs of relevant WEFE indicators during FGDs with innovation actors and municipality actors. Only 'nicknames' will be recorded to ensure anonymity.<br>Capacity building.   |
| WP3 | <b>Task 3.2 &amp; 3.3:</b> Generate evidence on the impact of the adoption of frontier agricultural innovations on the welfare of stakeholders and the WEFE Nexus through a stratified random sample (120+ respondents incl. counterfactual) in the vicinity of the demonstration cases. | Qualitative and quantitative data on adopters and non-adopters of frontier agricultural innovations. Panel data generation (pseudonymized data) from stratified sampling.  |
| WP4 | <b>Task 4.1:</b> Generate evidence on the concerns of stakeholders regarding WEFE Nexus policies.  | Qualitative anonymous data based on FGDs with stakeholders (e.g., rural and urban farmers of both sexes, refugees, Bedouins, entrepreneurs, academia, policy makers across various sectors, i.e., food production, processing, marketing, distribution, waste management, land, water, & environmental tenure, etc.) and validated using the Delphi study approach based on expert opinions. |
| WP4 | <b>Task 4.2:</b> 24 engagements to monitor the involvement of frontier agricultural actors of different WEFE sectors, messaging, advocating, consulting, and collaborating with stakeholders in order to promote cross-sectoral WEFE policy decision making                              | Qualitative anonymous data based on engagement plan.<br>Policy briefs.   |

## 2.2 Data types and formats

The trans- and interdisciplinary nature of the FrontAg Nexus project encompasses primary data collection and generation from the 'field', i.e., the demonstration cases and from stratified random samples in the vicinity of the demonstration cases for research purposes. Collection and generation of data will not only be based on primary data but also secondary data (**Table 2**). **Table 3** summarizes protection relevant details on data collected during the FrontAg Nexus project.



**Table 2: Primary and secondary data sources**

|                               |   |
|-------------------------------|---|
| <b>Primary data sources</b>   | <ul style="list-style-type: none"> <li>• Demonstration cases</li> <li>• Field studies, e.g., FGDs</li> <li>• End-user data collection (through surveys and interviews)</li> <li>• Practitioner and expert interviews in the WEFE Nexus and supply and value chains</li> </ul>   |
| <b>Secondary data sources</b> | <ul style="list-style-type: none"> <li>• Revision of existing frontier agricultural innovations along the supply and value chains</li> <li>• Revision of scientific publications on frontier agriculture in different contexts, e.g., WEFE Nexus, business readiness level (BRL), SRL, TRL</li> <li>• Revision of existing data from current and past EU and other funded projects and experiments</li> <li>• Revision of scientific publications on WEFE Nexus</li> <li>• Revision of scientific publications on frontier agricultural supply and value chain as well as agribusiness</li> <li>• Revision of policy briefs &amp; practice abstracts related to frontier agricultural supply and value chain as well as agribusiness</li> </ul> |

**Confidentiality and security of data.** Emphasis will be placed on privacy such that the confidentiality and security of the data (primary and secondary) and surveyed material will be prioritized. Details on data security and protection will be explained in subsequent sections.

Data will be generated and documented as text files, MS Word (\*.doc), MS Excel (\*.xls), IBM-SPSS (\*.sav), Stata (\*.dta), picture (\*.jpg) or text (\*.csv) (**Table 3**). Experimental, field, stakeholder and end-user-level information will be captured using field-specific standard software while diverse analyses will be conducted with appropriate data analytical tools. The software and tools to be used for the data collection process will be largely defined by those partners in charge of relevant tasks within the FrontAg Nexus project. The dataset collation and instructions on research and validation by the project partners will be documented as text files, MS Word (\*.doc) or text (\*.txt) and made available to the public together with the data, where applicable. **Table 3** provides an overview of the different datasets that will be generated during the FrontAg Nexus project.

**Transboundary Data Management.** The personal data of non-European Union (EU) countries will be analyzed as part of the FrontAg Nexus project and implies a transfer from non-EU to the EU. The personal data collected from non-EU countries will meet national, EU and international ethical standards (FrontAg Nexus summarizes these standards within its Ethical Framework). Personal data will be anonymized or pseudonymized and encrypted to ensure that the privacy and security of data are guaranteed and conform with European General Data Protection Regulation (GDPR).

**Expected size of the data.** The expected size of the data files that will be generated under the FrontAg Nexus project are largely unknown and would depend on the peculiarity or nature of the samples, which also characterizes the format of the anticipated dataset. However, we expect the entire data collection will not surpass two terabyte (TB).

**Table 3: Protection relevant details on the data to be collected during the FrontAg Nexus project**

| Work Package   | Type of data   | Data collection/ generation methods   | Storage Format   | Expected size | Availability                                | Dissemination  |
|--|--|---|--|---------------|---|--|
| WP2  | Data on innovation actors in the demonstration case sites, which forms the backbone of the Implementation Plan (IP).<br>Data on initial frontier agricultural technologies and practices.<br>Data on system indicators such as pH, TDS, ECond. and Temperature | Primary and field survey.<br>Engineering framework, calculation, and simulation of technological parameters.<br>Data on water and biomass quality, energy usage, sensors. | xlsx, csv, txt, docx, qzv, png, sql, jpg, pdf, mov, mp4. | Unknown       | PU, RE, Confidential, Anonymized            | Results will be accessible through the project deliverables, scientific publications as well as external depository. |
| WP3  | Random sample of 120+ respondents in farming sector in vicinity of demonstration case site, ca. 2/3 of them engaging in frontier agriculture.  | Primary and field survey, difference-in-difference (DID).   | xlsx, csv, txt, docx, qzv, png, sql, jpg.                | Unknown       | PU, Confidential, Anonymized                | Results will be accessible through the project website, deliverables, scientific publications.                       |
| WP4  | Qualitative data generated from FGDs   | FGDs.   | xlsx, csv, txt, docx, qzv, png, sql, jpg.                | Unknown       | PU, Confidential, Anonymized, Pseudonymized | Results will be accessible through the project website, deliverables, scientific publications.                       |
| Notes: PU = Public; RE = Restricted to a group specified by the consortium (including the EC Services); SEN = Sensitive, only for members of the consortium (including the EC Services). |  |   |  |               |   |  |

## 2.3 Data processing

The partners with demonstration case sites will undertake a stratified random sample to obtain a cross-country panel data set to achieve the objectives laid out in WP3 will sign a **joint controller agreement** with the coordinator of FrontAg Nexus. This joint controller agreement shall in a transparent manner determine the data controllers' respective responsibilities for compliance with the obligations under GDPR Art. 26, "in particular as regards the exercising of the rights of the data subject and their respective duties to provide the information referred to in Articles 13 and 14 of this Regulation, by means of an arrangement between them unless, and in so far as, the respective responsibilities of the controllers are determined by Union or Member State law to which the controllers are subject." The agreement may designate a contact point for data subjects.

The Joint Controller Agreement referred to here is between the:

*University of the Bundeswehr Munich (UniBw M)*  
*Represented by Prof. Dr. Gertrud Buchenrieder*  
*Department of State Affairs and Social Sciences*

Coordinator of FrontAg Nexus (ID 2242)  
 Werner-Heisenberg-Weg 39  
 85577 Neubiberg

Here: **Controller (A)**

and

the Principal Investigators (PIs) of FrontAg Nexus who will execute a survey (WP3, T3.2) for panel data collection:

- Partner 4-Ben Gurion University (BGU), Israel, Prof. Dr. Osnat Gillor, **Controller (B)**
- Partner 5-Universita di Bologna (UNIBO), Italy, Prof. Dr. Francesco Orsini, **Controller (C)**
- Partner 6-National Agricultural Research Center (NARC), Jordan, Dr. Luna Mohammad Taher AlHadidi, **Controller (D)**
- Partner 7-University of Mohamed VI Polytechnic (UM6P), Morocco, Prof. Dr. Abdallah Oukaroum, **Controller (E)**
- Partner 8-EI Bosten Phytagri, Tunisia, Mr. Boukil Oussema Kasla, **Controller (F)**
- Partner 9-Renewable Energy Association (EUROSOLAR Türkiye), Türkiye, Prof. Dr. Tanay Sıdkı Uyar, **Controller (G)**
- Partner 10-Bodrum Municipality, Türkiye, Mrs. Nilay Karamustafaoğlu, **Controller (H), to be confirmed**

hereinafter, jointly or individually, referred to as “Joint Controllers” or “Parties” relating to the project entitled “Impact of Climate-Smart and Water-Saving Frontier Agriculture on the WEF Nexus in Arid Mediterranean Regions” (PRIMA ID 2242), in short: FrontAg Nexus, hereinafter referred to as ‘Project’.

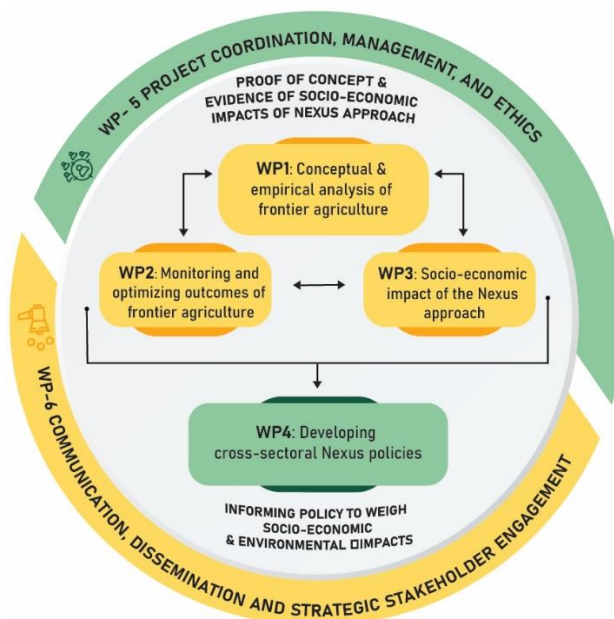
The signed joint controller agreement is available from the coordinator upon request.

## 2.4 Data use

The trans- and interdisciplinary nature of the FrontAg Nexus project implies coordinated tasks across several WPs. Thus, the data collected and generated will be used to generate results among inter-linked tasks in ensuring the success of all WPs. Data, models, and tools developed and derived from WP1 will contribute to WPs 2 and 3 and feed into WP4. Data from WP3 will primarily be used for impact analysis. Moreover, data generated will be relevant for several tasks in WP6. WP6 is the project’s dissemination platform and the main linkage to its stakeholders. The links between the WPs are illustrated in **Figure 4**.

Anonymized and pseudonymized primary and secondary data collected by the WPs will be stored securely in a private repository (hereafter, “File repository”) on project [website](#). To this respect, FSH (P3) has generated a ‘File Repository’ as part of the ‘Knowledge Hub’. The principal investigators of FrontAg Nexus will receive access to the ‘File Repository’ for data sharing. This repository will primarily serve as storage platform for the datasets generated from the 3-wave panel survey in WP3 or research papers not yet open access. Non-sensitive data will be stored by WP-specific teams on Microsoft (MS) Teams that serves as a sharing platform for the day-to-day research work. The access to the datasets on the ‘File Repository’ will be structured in such a way that partners have access — on a royalty-free basis — to implement their own tasks under the action.





**Figure 4: Overall structure of the work plan and linkages between the WPs**

Access to data will remain unrestricted within the consortium unless the partners must restrict prior information (tangible or intangible), including intellectual property to the FrontAg Nexus project based on:

- Legal restrictions or limits, incl. those imposed by the rights of third parties (including personnel) or
- Agreement that accesses by other would not be on a royalty-free basis.

The data collected and output produced by the FrontAg Nexus project is targeted at relevant stakeholders including members of the scientific community, professionals and policy makers linked to frontier agriculture and the WEF Nexus. Other relevant stakeholders are research projects, farmers, farmers association, civil societies. The structured literature review (SLR) headed by UNIBO (P5) in WP1 and intermediate results will be used within the project team and will not require consent of above-mentioned participating stakeholders since personal data is not generated. Similarly, data generated on prototype (use case) design and operations in the demonstration cases will not infringe on any intellectual property rights (IPR), see [Section 2.5](#).

Multiple dissemination activities are planned to reach wider stakeholders where the underlying data of the research output will be shared through the project website, (MS) Teams, the European Data Portal (<https://data.europa.eu/en>), the EC's open access data repository, or Open Research Europe (ORE, <https://open-research-europe.ec.europa.eu/>), the EC's open access publishing platform. Under the coordination of UniBw M (P1) and FSH (P3), the partners throughout the duration of the project will continuously update the website and data-sharing platform. The website and data-sharing platform will be maintained by FSH (P3) and will remain available for 5 years after the end of the project.

## 2.5 IPR management

Intellectual Property Rights (IPR) are the ownership rights for creations of the mind, such as inventions, names, images, or designs and can enable owners to obtain financial benefit from their ideas. Striking the right balance between creator and public interests can foster creativity and innovation.

All KERs are potentially subject to IPR management. FrontAg Nexus will examine the protection of any result that could potentially be commercially exploited, and if possible, reasonable, and justified, protect it.

The standard forms of IPR protection include:

- Patent: an exclusive right granted for an invention. It allows the owner to decide how and whether the invention can be used by others
- Trademark: a sign that distinguishes goods and services of one enterprise from those of another
- Industrial design: includes the aesthetic aspect of an object. 2D features can include patterns, lines, and colors, whereas 3D features extend to shape and surface
- Copyright: is the legal term to describe the rights over literary and artistic work but can also extend to databases, advertisement, maps, and technical drawings
- Trade-secret: commercially valuable confidential information which may be sold or licensed. This can include technical or nontechnical data, formulas, patterns, methods, lists of customers
- Confidentiality: information that is not publicly known and warrants protection

The choice of the most suitable form will be based upon the specifications of the activity and its results.

### 3 Findable, Accessibility, Interoperable and Re-use (FAIR) data

The DMP for FrontAg Nexus aligns with the guidelines on FAIR Data Management and ensures that research data will be findable, accessible, interoperable and reusable (FAIR).

#### 3.1 Making data findable, including provisions for metadata

The FrontAg Nexus project will make non-confidential data collection and/or generation as well as the associated metadata available on public platforms such as EIP-AGRI (the agricultural European Innovation partnership, [ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format](http://ec.europa.eu/eip/agriculture/en/content/eip-agri-common-format)) openAIRE (European Open Science Infrastructure) and TECA (Technologies and Practices for Small Agricultural Producers of the Food and Agriculture Organization). Data generated through panel surveys (WP3) and other methods in the FrontAg Nexus project will be anonymized. The procedure to generate panel data and anonymize the data is outlined in the “Survey procedure description for WP3”, which has been approved by the Data Protection Office of UniBw M (P1). The procedure can be viewed on the website of FrontAg Nexus.

For all quantitative and qualitative research analysis in the project, non-identifiable metadata will be produced and made available when and where applicable. Through outlets such as EIP-AGRI, FrontAg Nexus aims to promote the possibilities for data re-use. The instruments, methodologies, target groups, use cases as well as the goals of the data collection will be described. It will include a clear description of the data, the institution and contact person responsible for the data i.e., format, conceptualization, and creation. The respective partners within the consortium will appropriately store the data.

##### 3.1.1 Discoverability of data

The discoverability of the FrontAg Nexus data will be developed through diverse channels such as the project website, media (broadcasting, publishing, and the internet), repository as well as the aforementioned European and project data portals. For instance, the project website will provide features directing the user to the required information and one of the prominent forms of dissemination.

The website will be static with regular content consisting of webpages, visuals, downloadable materials written information created from the results and activities within the project's duration. Members of the consortium as well as the public have access to the content that is designated public (PU). With regards to the content management system (CMS) for the creation and management of website content, FSH (P3) is the sole administrator of the website with input from consortium members. The administrator user accounts contain the Name, e-Mail address, registration details, authorship information.

The website server is hosted in Germany. FrontAg Nexus follows standard privacy and cookies policies, which can be reviewed in [Annex 1](#) and [Annex 2](#).

### 3.2 Making data accessible

The data produced in FrontAg Nexus will be accessible to all the partners. The (anonymized) datasets and metadata will be accessible through the FrontAg Nexus dissemination channel. This dissemination channel includes the FrontAg Nexus website, MS Teams, EIP-AGRI, openAIRE as well as TECA. Furthermore, these repositories will allow partners to store and publish research outputs as well as provide details on methods. Access to FrontAg Nexus data will not require any special software and will be compatible with standard software such as Microsoft related programs (Excel, Access, Word). All data (including associated metadata) produced and collected, documentation and script (if and where possible) will be stored on the designated projects repository and/or data-sharing platform. Research outputs such as articles or book chapters and underpinning data will be made open access. Research outputs that are not open access will be deposited to an institutional repository and become open access 12 months after publication, either by direct link to e-prints or as a direct deposit to the European Open Science Infrastructure (openAIRE).

Each FrontAg Nexus project partner has a person assigned for data management that will be involved in data gathering and overseeing the compliance with the set guidelines for data protection as well as internal repository procedure.

FSH (P3) within WP6 hosts the so-called Knowledge Hub tab on the FrontAg Nexus website. The FrontAg Nexus Repository (from here referred to as Knowledge Hub) will be maintained as a principal dissemination portal developed as an extension of the website - with an interface adapted for mobile use. It represents a digital infrastructure for knowledge diffusion, capturing the development of FrontAg Nexus' developments. It will contain a public and a 'private' repository, it will host all the relevant and available open access data and assets created within the project that are related to the dissemination of demonstration cases, to be at the disposal and sorted for the intended audience.

The FrontAg Nexus Knowledge Hub also has 'private' repository. Initially, panel survey data (WP3) will be stored on this 'private' file repository within the FrontAg Nexus website, to which principal investigators receive exclusive access. Only after panel data has been cleared twice to be without personal data, the anonymous data will be made available on MS Teams as project-internal data-sharing platform. Thus, the data on the 'private' file repository can be labelled raw primary data.

MS Teams provides partners in the consortium the opportunity to have another secured place to store and share data within a defined group of users, including the possibility to offer a free download of data with the appropriate format. UniBo (P5) is the administrator of the MS Teams repository. The workplace computers of project partners will be protected within the framework of their own domain and IT infrastructure.

### 3.2.1 Method of data accessibility

Information and data generated within FrontAg Nexus will be made available via the project website and open access as well as 'private' repositories as outlined above. The project will follow national and international best practices and regulations in dealing with:

- (i) Data collecting methods
- (ii) Application of the methods and gathering data
- (iii) Data handling and implementation in databases

As the data management process is a continuous activity over a 3-year period, secure access to the FrontAg Nexus repository (where all relevant project related material is stored) will be ensured. The primary repository for original panel data (WP3) will be the 'private' file repository within the Knowledge Hub of FrontAg Nexus. For the day-to-day research work, MS Teams has been the first choice of the consortium. This will ensure that sensitive information and data are only accessible to authorized persons.

### 3.3 Making data interoperable

To allow data exchange between authorized researchers and institutions within and outside the consortium, the FrontAg Nexus project will ensure that wider available interoperable formats such as MS Excel and Word are used. Furthermore, the use of standard vocabularies for all data types guarantees inter-disciplinary transferability. In the case that specific research and technical terminologies need to be used, the concerned FrontAg Nexus partners will provide the necessary documentation of explanation.

### 3.4 Increase data-reuse

The anonymized panel datasets produced in FrontAg Nexus will be licensed under a creative commons license. In the event of publication, the dataset will be made available upon request. The data produced for public availability will be usable by third parties even after project completion. This will be done by storing the data on online portals such as project website as well as international and European Data Portal such as TECA, European Open Science Infrastructure (openAIRE), and EIP-AGRI (European Innovation Partnership for Agricultural Production and Sustainability) ([https://eu-cap-network.ec.europa.eu/index\\_en](https://eu-cap-network.ec.europa.eu/index_en)), respectively.

This strictly adheres to the EC stipulation, namely that data should be "as open as possible and as closed as necessary". The term 'open' promotes the reusability of the data (e.g., open access publications) and enhancement of research while "closed" signifies respecting the privacy of the subjects.

#### 3.4.1 Timeline for reuse of data

The time limit of the data re-use is linked to the open access data platform standards and expected to go beyond the lifespan of the project. The project website will remain active for at least 5 years after the formal completion of the project where a link to this website will be established at all partners, and advisory board members' websites. The anonymized datasets and open-access research outputs such as articles will be preserved on the international and European Data Portal such as EIP-AGRI as well as European Open Science Infrastructure (openAIRE).

### 3.4.2 Data usable by third parties

Data use for any publication will be made available at the time of publication (upon request). All unpublished data will be deposited in the designated repository that is managed by FSH (P5) in WP6 no later than 24 months after the end of the project. The affected FrontAg Nexus partners will not put data that is related to intellectual property rights (IPR) into the repository with the possibility of an embargo unless otherwise stated and permitted. Such data will include the corresponding piece of information sheet.

## 4 Other research outputs

Research outputs can include various forms and may include datasets, software tools, prototypes, policy briefs, technical reports, patents, conference presentations, journal papers, exhibitions, performances, or public engagement activities. Other research outputs contribute to the dissemination and utilization of research findings, foster knowledge exchange, and promote innovation. They provide additional avenues for sharing and communicating research outcomes with diverse stakeholders, including policymakers, industry professionals, the public, and other researchers.

Other outputs such as prototypes or any other relevant creation classified as a key exploitable results (KER) will also be monitored and stored on the project repositories ('private' file repository on project website and MS Teams platform), depending on their level of openness by partners that are developing them. KER are specific findings, technologies, or innovations that have the potential for commercialization or practical application. These outputs and exploitable results will be documented (i.e., in practice abstracts) and their progress shown on the project Knowledge Hub, among other sharing platforms. The partners developing prototypes and technologies such as APM (P2) as well as all partners hosting a demonstration case, notably BGU (P4), UniBo (P5), NARC (P6), UM6P (P7), EIBosten Phytagri (P8), EUROSOLAR Türkiye (P9), and Bodrum Municipality (M10) will be responsible for adequately storing and monitoring corresponding information.

## 5 Allocation of resources

There are on-going discussions regarding the options on best practices in storage and securing of data created within FrontAg Nexus, if the storage space on the website or on MS Teams turns out insufficient. As soon as the activities involving data collection and evaluation are planned in more detail, a decision will be made. Core of the planning and discussions is a common, cross work package assessment of the storage space required, on which the development and costs of an online database/repository (extending the website) depend. There is no limitation regarding storing space on the website repository that is hosted by FSH (P3). The MS Teams was generously set up and provided free of charge by our partner UniBo (P5). Costs for the Knowledge Hub on the project website are covered by the budget allocated for FSH.

## 6 Ethics

The project's "Ethical Framework" ensures adherence to ethical principles in line with national and European best practices and regulations. It focuses on fair power relationships, privacy protection, and compliance with regulations. Personal data is safeguarded through pseudonymization, anonymization, and encryption. Participants receive detailed information and can withdraw without consequences. Farm animals are treated ethically, following welfare regulations and standards. Benefit sharing and

sustainable development are emphasized in non-EU countries. Environmental, health, and food safety risks are minimized through compliance and precautionary measures.

Overall, the Ethical Framework promotes ethical practices, protects participant rights and privacy, ensures animal welfare, and complies with regulations and guidelines. The Ethical Framework is a living document and provides the guidelines for the effective awareness building, implementation and monitoring of the ethical practices needed. It also contains the Code of Conduct applicable to all people involved in FrontAg Nexus, including the demonstration case sites. Furthermore, FrontAg Nexus has appointed an Independent Ethics Advisor (IEA) from Month 1 who supports the consortium in any ethical issue. The Ethical Framework has been reviewed by the IEA.

Furthermore, any activity to collect data, including personal data, is reviewed by the Data Protection Office of UniBw M (Coordinator). In this context, a “Survey Procedure Description for WP3” has been agreed with the DPO at UniBw M that follows the European General Data Protection Regulation (GDPR), particularly Art. 6 Para. 1a., Art. 9 Para. 2a (GDPR) in connection with Art. 89 Para. 1 & 2 (GDPR). The Survey Procedure Description for WP3 will be available on the project website to allow survey participants access to it throughout the project. The Ethical Framework and the Survey Procedure Description for WP3 contain the project’s basic “Information Sheet and Consent Form”. The Information Sheet and Consent Form will be, however, adjusted depending on the survey instrument.

## 7 Other issues

Not applicable at this point in time.

## 8 Conclusion

The FAIR guidelines on data management stipulated within the Horizon 2020 and Horizon Europe framework prescribes data management plan as a “living” document that will define the policies and procedure for data handling during and after the FrontAg Nexus project. This document describes both the internal and external guidelines for storing, processing, and accessing the FrontAg Nexus project datasets. The information provided in this document provides an initial guideline for the consortium partners, subjected to project updates to reflect the data management progress and changes. The project coordinators are responsible for the revision and accuracy of the Data Management Plan, and as such, it forms Deliverable 5.2 in WP5.



## Annex 1 FrontAg Nexus privacy policy

LAST UPDATE: 12/05/2023

### 1. Who we are

This privacy policy governs the use of your personal data by FrontAg Nexus project – this project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement 2242.

NOTE: If you want information on how we process personal data via cookies on our Website, you are kindly referred to our Cookie Policy.

### CONTACT DETAILS

Organisation name: Foodscale Hub

Address: Leontos Sofou 20, 57001 Thermi, Thessaloniki - Greece.

Phone: +30 2310 462 885.

E-mail: [info@frontagnexus.eu](mailto:info@frontagnexus.eu)

DPO: Agapi Tsakogianni, [atsako@gmail.com](mailto:atsako@gmail.com).

### 2. How we collect your personal data

We collect your personal data both directly and indirectly:

**Directly.** We obtain personal data directly from individuals in a variety of ways, including but not limited to the following cases:

- an individual subscribes to our newsletter/s;
- an individual registers to attend in meetings and events we host and during attendance at such events;
- we establish cooperative relationships with an individual;
- we provide professional services pursuant to our contract with the European Commission;
- an individual participates in an interview or survey organized by us.

**Indirectly.** We obtain personal data indirectly about individuals from a variety of sources, including:

- our research partners;
- our networks and contacts;
- public and open data sources such as public registers, news articles and internet searches;
- social and professional networking sites (e.g. LinkedIn).

### 3. What types of data we collect?

We only collect the data that are necessary for the smooth implementation of our project. These data fall into the following categories:

- **contact details** (name/ surname, e-mail address, street address, mobile phone number, land line phone number);
- **professional information** (job title, organization, field of expertise);
- **demographics** (e.g. age, gender, nationality);
- **information about what a person knows or believes;**
- electronic identification data, such as IP address;
- **videos and photos** (e.g. from people that attend our events).

#### **4. Bases of lawful processing**

We process personal data on the following legal bases:

Legal obligations - for processing activities required for compliance both with applicable national and European legislation as well as with the specific legal and regulatory framework of the Horizon 2020 Framework Programme for Research and Innovation of the European Union.

Consent – for processing activities such as organization of surveys and interviews, completing of questionnaires and dissemination of project's results.

Contractual obligations - for processing activities such as reporting to the European Commission and complying with project's publicity obligations.

#### **5. What we do with your personal data**

We process your personal data with the purpose of:

- Conducting research (e.g., interviews, surveys);
- Disseminating our project's results to different types of stakeholders;
- Sending invitations and providing access to guests attending our events and webinars;
- Administering, maintaining, and ensuring the security of our information systems, applications, and websites;
- Processing online requests or queries, including responding to communications from individuals;
- Complying with contractual, legal, and regulatory obligations.

#### **6. How we secure your personal data when we process it**

We continuously apply a personal data risk assessment process to identify, analyse, and evaluate the security risks that may threaten your personal data. Based on the results of this risk assessment, we define and apply a set of both technical and organizational measures to mitigate the above security risks, including but not limited to:

- Data Protection Policies to guide our personnel when processing your data;
- Written contracts with organizations that process personal data on our behalf;
- Non-Disclosure Agreements with our personnel;
- Back up process, antimalware protection, access control mechanisms, etc.
- Appointment of a Data Protection Officer.

#### **7. Do we share personal data with third parties?**

We may occasionally share personal data with trusted third parties to help us deliver efficient and quality services. When we do so, we ensure that recipients are contractually bound to safeguard the data we entrust to them before we share the data. We may engage with several or all the following categories of recipients:

- Parties that support us as we provide our services (e.g., cloud-based software services such as Dropbox, Microsoft Sharepoint, Google);
- Our professional advisers, including lawyers, auditors, and insurers;
- Dissemination services providers (e.g., MailChimp);
- Law enforcement or other government and regulatory agencies or other third parties as required by, and in accordance with applicable law or regulation;
- The European Commission according to our relevant contractual obligations.

#### **8. Do we transfer your personal data outside the European Economic Area?**

We do not own file servers located outside the European Economic Area (EEA). However, we may use cloud and / or marketing services from reputable providers such as SharePoint, DropBox, MailChimp, Google, etc., situated both inside and outside the EEA. We always check that such providers comply with the relevant GDPR requirements before start using their services.



## 9. Your rights

You have the following rights regarding our processing of your personal data:

- **Right to withdraw consent** – You can withdraw consent that you have previously given to one or more specified purposes to process your personal data. This will not affect the lawfulness of any processing carried out before you withdraw your consent.
- **Right of access** – You can ask us to verify whether we are processing personal data about you and, if so, to have access to a copy of such data.
- **Right to rectification and erasure** – You can ask us to correct our records if you believe they contain incorrect or incomplete information about you or ask us to erase your personal data after you withdraw your consent to processing or when we no longer need it for the purpose it was originally collected.
- **Right to restriction of processing** – You can ask us to temporarily restrict our processing of your personal data if you contest the accuracy of your personal data, prefer to restrict its use rather than having us erase it, or need us to preserve it for you to establish, exercise or defend a legal claim. A temporary restriction may apply while verifying whether we have overriding legitimate grounds to process it. You can ask us to inform you before we lift that temporary processing restriction.
- **Right to data portability** – In some circumstances, where you have provided personal data to us, you can ask us to transmit that personal data (in a structured, commonly used, and machine-readable format) directly to another entity.
- **Right to object** – You can object to our use of your personal data for direct marketing purposes, including profiling or where processing has taken the form of automated decision-making. However, we may need to keep some minimal information (e.g., e-mail address) to comply with your request to cease marketing to you.
- **Right to make a complaint to your local Data Protection Authority (DPA)** (see [https://ec.europa.eu/justice/article-29/structure/data-protection-authorities/index\\_en.htm](https://ec.europa.eu/justice/article-29/structure/data-protection-authorities/index_en.htm)) regarding any concerns you may have about our data handling practices.

To ask us to do anything of the above, you can contact us by email: [info@frontagnexus.eu](mailto:info@frontagnexus.eu) or [atsako@gmail.com](mailto:atsako@gmail.com). We will promptly examine your request against the relevant requirements of the laws and regulations governing privacy and personal data protection and we will answer the latest within 30 days after receiving your request. We will ask from you some kind of identification (e.g., photocopy of your identity card or passport) to avoid non-authorized reveal of your personal data. If, for reasons of complexity of the request or a multitude of requests, we are unable to respond promptly, we will notify you within 30 days of any delay, which in no case may exceed two months from the expiration of the 30-day deadline.

## 10. How long do we retain personal data?

We retain personal data to provide our services, stay in contact with you and to comply with applicable laws, regulations, and contractual obligations to which we are subject. Please note that we have an obligation to retain data concerning projects funded by the Horizon Europe Framework Programme for Research and Innovation of the European Union for up to five years after the end of the project (unless auditors request further retention). After the expiry of the retention period, and unless further legitimate grounds for retention arise, we will dispose of personal data in a secure manner.

## 11. Children

We do not knowingly collect, use, or disclose information from children under the age of 16. If we learn that we have collected the personal information of a child under 16 we will take steps to delete the information as soon as possible. Please immediately contact us if you become aware that a child under 16 has provided us with personal information.

**12. Revisions of this Privacy Policy**

This Privacy Policy is valid from 12/05/2023 and replaces any other previous notifications that we had issued in the past regarding our personal data management practices. We reserve the right to revise this Policy at any time and we commit to notify you for such revisions if they significantly affect your interests or fundamental rights and freedoms as a data subject.

## Annex 2 FrontAg Nexus cookies policy

### WHAT ARE COOKIES?

“Cookies” are small text files that are stored on your computer through the Internet browser, only retaining information related to your preferences and therefore not including your personal data.

### WHAT ARE COOKIES FOR?

Cookies help determine the usefulness, interest, and number of uses of your websites, allowing for faster and more efficient browsing, eliminating the need to repeatedly enter the same information.

### WHAT TYPE OF COOKIES DO WE USE?

There are two groups of cookies that can be used:

**Permanent Cookies:** These are cookies that are stored in the browser in your access equipment (PC, mobile and tablet) and are used whenever you visit our website more than once. They are generally used to direct browsing to the user's interests, allowing us to provide a more personalised service.

**Session Cookies:** These are temporary cookies that remain in your browser's cookie file until you leave the website. The information obtained by these cookies serves to analyse patterns of web traffic, allowing us to identify problems and provide a better browsing experience.

### FOR WHAT PURPOSES DO WE USE COOKIES?

#### Strictly necessary Cookies

They allow you to browse the website and use its applications as well as to access secure areas of the website. Without these cookies, the services you have requested cannot be provided.

#### Functional Cookies

They store user preferences for site usage so that you do not need to reconfigure the site each time you visit it.

#### Advertising Cookies

They direct advertising according to the interests of each user to direct advertising campaigns, taking into account the tastes of users, and they also limit the number of times you see the ad, helping to measure the effectiveness of advertising and the success of the website organisation.

### HOW CAN YOU MANAGE COOKIES?

All browsers allow users to accept, reject or delete cookies, in particular by selecting the appropriate settings in their browser. You can set cookies in the “options” or “preferences” menu of your browser. Note, however, that by disabling cookies you can prevent certain web services from functioning properly, partially, or totally affecting browsing of the website.

Users can disable the use of cookies on this web page at any time by modifying browser settings, for example:

Google Chrome

Internet Explorer

Mozilla Firefox

Apple Safari

### WHAT HAPPENS WHEN COOKIES ARE DISABLED?

Certain functions and services may stop working or behave unexpectedly, such as identifying the user on certain pages or receiving information that takes into account the location of the user, among others.

If you disable the cookies on this web page, you may not have access to certain areas, or the quality of your browsing experience may be considerably lower.

### THE COOKIES USED ON THIS WEB PAGE

We use tools like Google Analytics to better understand how visitors interact with our website. This provides us with important information to enable the site to work better. The information collected is not linked to your personal data.

For more information on the cookies set by Google Analytics, please

visit: <http://code.google.com/apis/analytics/docs/concepts/gaConceptsCookies.html>

#### Necessary

| Cookie            | Duration | Description  |
|-------------------|----------|--|
| cookieyes-consent | 1 year   | CookieYes sets this cookie to remember users' consent preferences so that their preferences are respected on their subsequent visits to this site. It does not collect or store any personal information of the site visitors. |
| elementor         | never    | This cookie is used by the website's WordPress theme. It allows the website owner to implement or change the website's content in real-time.   |

#### Analytics

| Cookie         | Duration | Description  |
|----------------|----------|--|
| _ga_24YMD9T39W | 2 years  | This cookie is installed by Google Analytics.  |
| _ga            | 2 years  | The _ga cookie, installed by Google Analytics, calculates visitor, session and campaign data and also keeps track of site usage for the site's analytics report. The cookie stores information anonymously and assigns a randomly generated number to recognize unique visitors. |
| CONSENT        | 2 years  | YouTube sets this cookie via embedded youtube-videos and registers anonymous statistical data.   |

#### Advertisement

| Cookie                 | Duration            | Description   |
|------------------------|---------------------|---|
| YSC                    | session             | YSC cookie is set by Youtube and is used to track the views of embedded videos on Youtube pages.                    |
| VISITOR_INFO01_LIVE    | 5 months<br>27 days | A cookie set by YouTube to measure bandwidth that determines whether the user gets the new or old player interface. |
| yt.innertube::requests | never               | This cookie, set by YouTube, registers a unique ID to store data on what videos from YouTube the user has seen.     |
| yt.innertube::nextId   | never               | This cookie, set by YouTube, registers a unique ID to store data on what videos from YouTube the user has seen.     |

#### Others

| Cookie      | Duration            | Description    |
|-------------|---------------------|----------------|
| DEVICE_INFO | 5 months<br>27 days | No description |

#### Cookie Settings

You can change your cookie preferences any time by clicking the above button. This will let you revisit the cookie consent banner and change your preferences or withdraw your consent right away. In addition to this, different browsers provide different methods to block and delete cookies used by websites. You can change the settings of your browser to block/delete the cookies. Listed below are the links to the support documents on how to manage and delete cookies from the major web browsers.

Chrome: <https://support.google.com/accounts/answer/32050>

Safari: <https://support.apple.com/en-in/guide/safari/sfri11471/mac>

Firefox: <https://support.mozilla.org/en-US/kb/clear-cookies-and-site-data-firefox?redirectslug=delete-cookies-remove-info-websites-stored&redirectlocale=en-US>

Internet Explorer: <https://support.microsoft.com/en-us/topic/how-to-delete-cookie-files-in-internet-explorer-bca9446f-d873-78de-77ba-d42645fa52fc>

If you are using any other web browser, please visit your browser's official support documents.

#### ADDITIONAL GUARANTEES AND WITHDRAWAL OF ACCEPTANCE

FrontAg Nexus project will not be held liable for the content and veracity of the privacy policies of third-party components that may be included in this web page.

As an additional guarantee, the recording of cookies on this website may be subject to users accepting the cookies during their visit to the web page and the installation or update of the browser used. This acceptance may be revoked at any time in the content and privacy settings, as defined above in point 5 of this policy, or by using the link at the bottom of this page.

#### COOKIE POLICY UPDATE

FrontAg Nexus project may change this cookie policy in accordance with legal or regulatory requirements or adapt this policy to new instructions provided by law.

Whenever significant changes are made to this cookie policy, users of the web page will be notified.

#### MORE INFORMATION ON COOKIES

More information about cookies can be found on this link: [www.allaboutcookies.org](http://www.allaboutcookies.org)

**END OF DOCUMENT**