ARSINOE
CLIMATE RESILIENT-REGIONS THROUGH SYSTEMIC SOLUTIONS AND INNOVATIONS

# Scientific quality assurance plan and ethical considerations

## Deliverable 1.2

## WP1: Project Management

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# EXECUTIVE SUMMARY

Deliverable 1.2 "Scientific quality assurance plan and ethical considerations " is a public report, developed within WP1 - Project Management (Tasks 1.2 and 1.3).

This report aims at:

(a) ensuring that the project will satisfy the established quality standards. The Scientific Quality Assurance Plan defines quality management processes and includes procedures to review the internal management and quality progress reports, as well as the overall project deliverables. It also considers the evaluation of events and describes the management procedures and tools adopted for measuring and monitoring the project's progress. These activities are part of Task 1.2.

(b) offering a rationale and underlying principles and ethical guidelines that the ARSINOE partners need to take into consideration, while conducting all project activities, especially regarding contacting and interacting with stakeholders and citizens, as part of Task 1.3.

Templates for the informed consent/assent forms and information sheets are provided in the Appendices.

Related Deliverable: D1.3 Data Management Plan (M6) for stakeholder data management procedures.

# 1.0 INTRODUCTION

## 1.1 Purpose of this document

This report has been developed within Tasks 1.2 and 1.3 part of WP1 (Project Management) in ARSINOE and serves two purposes, as follows:

(a) To endure that the project will satisfy the established quality standards. Consequently, the Scientific Quality Assurance Plan defines quality management processes and includes procedures to review the internal management and quality progress reports, as well as the overall project deliverables. It also considers the evaluation of events and describes the management procedures and tools adopted for measuring and monitoring the project's progress. These activities are part of Task 1.2.

(b) To offer a rationale and underlying principles and ethical guidelines that the ARSINOE partners need to take into consideration, while conducting all project activities, especially regarding contacting and interacting with stakeholders and citizens, as part of Task 1.3. Ethical principles and guidelines described in this document make up the basis for:

(i) identifying and recruiting research participants;

(ii) obtaining informed consent for the participation of humans in project activities;

(iii) managing any ethical risks associated with their participation.

## 1.2 Structure

The document is structured as follows: Section 2 describes the procedures for the Quality Assurance and Control (Management) for the project activities and deliverables, while Section 3 details the Ethical principles and considerations. Templates for the informed consent/assent forms and information sheets are provided in the Appendices.

# 2.0 SCIENTIFIC QUALITY ASSURANCE PLAN

## 2.1 Verification of work progress

The Project Management Team (PMT) is the board responsible for the project quality management. The PMT will ensure that the project activities necessary to design, plan and implement ARSINOE are effective and efficient with respect to the purpose of the objectives and its performance.

PMT is formed by the Coordinator, represented by Prof. Chrysi Laspidou (UTH), supported by other UTH staff for administrative, financial and contractual matters. Specifically, the coordinator will be assisted by Dr Dimitrios Kofinas and Dr Nikolaos Mellios (UTH), as well as the financial officer Mr. Konstantinos Mitrakopoulos (UTH). The PMT also includes the:

- Project Manager: Dr Giannis Adamos (UTH), responsible for all WP1 activities and for the overall coordination of the project on a day-to-day basis;
- Scientific Quality Assessment and Control Officer: Dr Lydia S. Vamvakeridou-Lyroudia (KWR), responsible for related activities in Task 1.2;
- Risk Officer: Prof. Phoebe Koundouri (AUEB), responsible for related activities in Task 1.2 and Leading Task 1.4;
- Ethics Officer: Prof. E. Vavalis (UTH), responsible for related activities in Task 1.3;

- Data officer: Dr Martin Drews (DTU), responsible for related activities in Task 1.3 and assisting in Task 1.5;
- Innovation and IPR officer: Dr Svetlana Klessova (GAC), responsible for related activities in Task 1.3;
- Data Management Leader: Dr Eleni Toli (ATHENA), leading Task 1.5, responsible for the Data Management Plan (DMP).

The PMT will have bi-monthly meetings (usually as online workshops) to ensure that work is in accordance with the Grant Agreement (GA), and will carry out the following tasks:

- Main interface between the consortium and the EC for all contractual and formal reporting matters;
- Coordination and progress monitoring of all project activities;
- Organisation of PMT meetings and Scientific and Technical Committee (STC) meetings to discuss progress within and across the WPs and the need for any corrective measures.

Thus, the PMT will be in charge of organizing STC meetings (chaired by the coordinator), where STC is the executive body where the progress of the project is monitored and managed and decision to be taken by PSB are prepared. The STC will discuss and propose solutions in case of:

- Foreseeable difficulties in a Work Package (WP) to achieve objectives or deliverables;
- Need for harmonisation of activities between and across WPs;
- Obstacles and barriers causing delays in progress, in particular if this is likely to affect other WPs that need the output of another WP as a starting point;
- Need for reallocation of tasks within or among the WPs, if necessary;
- Security or privacy issues raised as part of the DMP design and implementation;
- Weak performance or malfunctioning of a partner;
- Innovation Management and IPR issues.

The STC decides whether an issue can be tackled internally or has to be communicated to and decided by the Project Steering Board (PSB) or with the EC officer. In the latter cases, the STC will develop a proposal to be communicated to the PSB for decision.

To ensure a regular monitoring of the project tasks, WP leaders are asked to report on the progress of their WP monthly in the STC meeting. For this purpose, WP leaders should collect the views of the task leaders and try to present information regarding:

- On-going activities;
- Short overview of the activities undertaken during that month period;
- Issues/delays with the activities. In case there are issues, the WP leader should also identify other tasks that can be impacted and specify a plan to minimise the risks.

To ensure that the PMT Officers can monitor the overall quality of the project, when an activity, task or deliverable is delayed or when there are deviations from GA, the PMT Officers should be informed and a valid justification should be provided. The WP leader together with the Coordinator and Risk Officer are then responsible to identify other tasks that can be impacted and specify a plan to minimise the risks. Then, the STC, the Coordinator along with the Risk and Quality Officers will decide on corrective measures to improve the quality of results, and if necessary, to reallocate this responsibility to another partner.

The Coordinator in consultation with the STC, will be ultimately responsible for reporting to the European Commission (EC) and for coordinating mitigating actions, when necessary.

In case of conflict and dispute among the team members, the conflict resolution will follow the procedure described in the Description of Action (DoA) and further elaborated in the Consortium Agreement (CA).

To facilitate the project progress monitoring, the ARSINOE common space was created (Deliverable 1.1) and made accessible to the consortium throughout the Project Manager. This tool provides space and folders for all the project internal files and facilitates the exchange of messages. A Goggle Calendar for the project events has been created. This is an action under Task 1.1, to be included in the contractual reporting.

## 2.2 Peer review of deliverables

### 2.2.1. Adequacy of deliverables

All the ARSINOE deliverables should be conceived according to the objectives and the target audience, considering the purpose of the deliverable and defining the best way to convey the information. The deliverables should be designed from the beginning to be clear about the objective, and then be very concise about which content to include in the documents.

Very long deliverables should be avoided as they create several problems to write for the author, for the reviewer to read and, ultimately, for the final user. The focus of each deliverable must be clear and concise. The authors should avoid repeating content from other documents and project deliverables. Instead, references to the other documents should be included, while the authors should synthesize, summarize and always get to the point, in case the text refers to other sources.

The following elements are to be included in a deliverable: **Executive Summary**, an **Introduction** section outlining clearly the Purpose and Scope, a **Conclusions** section and a **Future Work/Next Steps** Section (when applicable). All the Deliverables with Technical/Scientific content need also to include a **References** section. In case other ARSINOE deliverables are referenced in the text, these should also be listed in the *Executive Summary* as **Related Deliverables**.

The right size for a given deliverable depends largely on the topic, the objective, etc. A suggested maximum size of 30 pages for dissemination/exploitation documents and 100 pages for technical deliverables, could be considered as reference. However, there might be exceptions and it will be the responsibility of the reviewer to indicate whether the report is too large or too short for the purpose (and the work included).

The Executive Summary should be short (no more that one page) and should be structured to enable the reader to understand the main points addressed in it. It needs to show the related deliverables, but also it needs to include one or two sentences (maximum one paragraph) about the relevance of the *specific* deliverable to **European Union (EU) policies** related to climate change adaptation/green deal (when applicable).

Due to the general theme of the call (resilience to climate change) and the existence of four sister projects under the same call (with deliverables similar in content), this would be particularly useful for the EC, especially after the end of the project. Obviously, if a given deliverable (especially towards the end of the project) is specifically relevant for related EU policies, this should also be further detailed in the main text in a dedicated section labelled: **Relevance to EU policies**.

In case the deliverable contains long tables, answers to questionnaires, minutes of events, forms, lists of data and/or outputs etc., these should be collected in suitably labelled **Appendices** at the end of the report and not inserted within the flow and sections of the main text. Obviously, the number of pages of the Appendices cannot be restricted, nor is it considered as part of the suggested limitations in pages for the main text. In case the Appendices are too long or increase the file size of the main deliverable considerably, they can be submitted as separate documents, with proper labelling on their cover page.

### 2.2.2. Quality Assurance procedure

All ARSINOE deliverables (Public - PU and Confidential - CO) will undergo a Quality Assurance (QA) procedure. Two procedures have been designed for the revision of the deliverables depending on the nature, scope and origin of the content:

Deliverables produced within WP2 – WP8

1. The WP leaders are responsible for the arrangements and logistics for the QA process and its supervision (contacting reviewers, deadlines, etc.). It is recommended (although it depends on the practices of each WP leader) to maintain also an excel file, possibly also available in the ARSINOE common folder, to track the writing and reviewing process of the pending deliverables. Progress of the writing of the deliverable will be included as well so to be able to plan the reviewing process on-time. The Project Manager needs to keep overall track of pending deliverables and contact the WP leaders in time with reminders.
2. Reviewers will be selected by the deliverable leader as early as possible (see following section on Quality Assurance Schedule) and will be given a check list of deliverables developed for ARSINOE.
3. Reviewers' comments and contributions should be done as described in the following section "Methods to be used by reviewers".
4. The reviewers' comments should be addressed before the deliverable can be considered final. Thus, the author(s) of the deliverable should send the reviewed/revised document to the reviewers for a final acceptance of the document.
5. With the approval of the reviewer(s), the WP leader will check that the content of the deliverable is in line with the GA description. The Quality Assurance Officer will at this stage perform a last round of proof-reading, to find and correct typographical errors and mistakes in grammar, style, spelling, format and layout that may have been introduced the modifications done when addressing review comments and requests. The Quality Assurance Officer is responsible to oversee the application of QA standards to deliverables against pre-defined quality standards, layout and structure and, if needed, to call in external experts in collaboration with the Coordinator.
6. The final document will be submitted to the Coordinator and the Project Manager for the final check and submission to the EC services.
7. Each document will be reviewed in two stages: a. **Internal review** (within the organisation leading the deliverable) b. **External review** (by other consortium partners).
8. The **internal review** (**Stage a**) is a matter of the general procedures in place by each organisation. In case such procedures do not exist (e.g. for partners that seldom participate in EU funded projects), the suggested procedure is to appoint internally a person that was not involved in the writing of the deliverable, but senior and experienced enough to make a thorough review.
9. The **external review (Stage b)** will take place according to the following procedure:
    I. One main reviewer should review each deliverable (Type R = Reports).
    II. The reviewer should be from a different organisation than the partner responsible for the deliverable.
    III. It should be a person not involved as co-author or contributor to the deliverable, but with enough knowledge and expertise to be able to follow any related technical content, i.e. a senior researcher, participating in any WP (not necessarily the same WP).

IV. The person should be fluent in English (if not a native English speaker) to ensure that the quality of English in the Deliverable will be adequate.

V. If such a person cannot be found among the consortium members, the WP leader will notify the STC and the PMT, so as to appoint an external reviewer to the project (e.g. among the External Advisory Board - EAB).

VI. In case the review at Stage (b) - External review, raises serious issues with the Deliverable, the WP leader, after discussing the matter with the QA officer and the Project Manager, will appoint a second external Reviewer and the procedure for Stage (b) will be repeated.

**Important Note**: The external Reviewer at Stage (b) is the *sole responsible* for the review and should *not* delegate this task to more junior persons in their own organisation, e.g. for lack of time. In case they don't have the time, they should notify the WP leader, so that another reviewer from a different organisation can be appointed.

Deliverables produced within WP1 and (short) milestone reports.

1. Deliverables produced within WP1 and short milestone reports produced during the project **will be reviewed by the project coordinator and the QA officer only**. However, the revision will be conducted according to the methods described for the rest of the WPs (Table 2.1) (except for the selection of an additional external reviewer). The revision will take place ensuring that the content produced meets the specifications of the GA.
2. The tracking of the writing and revision of the deliverables will be conducted in the same way as the other WPs, but the review times may be shorter (by common agreement), especially for short reports.
3. The QA and project coordinator's comments should be addressed before the deliverable can be considered final. Thus, the author(s) of the deliverable should send the reviewed/revised document for a final acceptation of the document.

The Coordinator will proceed to the delivery of the Deliverable to the EC services. All the deliverables of different types (P = Prototype, D = Demonstrator, O = Other), i.e., deliverables that are not a report, should be accompanied by a short report/text to be reviewed according to the rules here defined for Deliverable of type R. This report could contain, for instance, the link to an online tool for a prototype etc., as needed.

The Coordinator is also responsible for uploading the final version of the deliverable to the correct location in the project repository and into the European Commission platform. All deliverables must be approved by the Coordinator before being submitted to the EC, because the Coordinator is the ultimate responsible for all deliverables towards the European Commission.

All deliverables that are reports must be produced using the deliverables template, which is developed by WP8 and made available in the common folder of the project. When using this template, it is strongly recommended to have/adjust all the Tables, Figures etc. in Portrait mode (not in Landscape mode).

### 2.2.3. Quality Assurance Officer role

The Quality Assurance Officer will have the overall responsibility for Quality Assurance and Quality Control of the project deliverables and outputs in ARSINOE. Dr Lydia Vamvakeridou-Lyroudia has been appointed to this role in the GA.

The Quality Assurance Officer (QAO) will be in charge of the application of QA standards to deliverables against pre-defined quality standards, layout and structure and, if needed, can propose appropriate corrective actions in collaboration with the Coordinator. The QAO and the Project Manager will also

perform a last round of proof-reading, after review and revision is complete for all the deliverables. The Project Manager is responsible for notifying the QAO, once they reach this final stage before submission.

### 2.2.4. Quality Assurance Schedule

When the deliverable preparation starts, the deliverable leader should contact the WP Leader to propose (and discuss) reviewers in case the deliverable is produced within WP2-WP8. The WP Leader will inform the QAO and the Project Manager accordingly. In case the deliverable is from WP1 or it is a milestone report, then the revision will be conducted by the QA Officer and Coordinator (or the Project Manager) only.

Once reviewers have been defined and selected, they will be contacted by the deliverable leaders (keeping the WP leader informed in cc) about the future revision of deliverable and agree on a binding procedure for the review process. The deliverable leader will propose the schedule for the review process in advance, agree on it with the reviewers and share it with the corresponding WP leader, who will then share it with the QAO and the Project Manager, who will be monitoring the progress, to have it completed before the deliverable deadline

The schedule for the review process are provided in Table 2.1 (for WP2-WP8). However, the timing of specific review stages can be adapted if previously agreed between the coordinator, the WP leader, the deliverable leader and the related reviewers.

Table 2.1 Schedule for the external review process (Stage b) of deliverables in WP2-WP8

| Stage (b) | Starts when | Duration | Roles involved |
|---|---|---|---|
| i. Contact QA Officer. Select reviewer and agree on schedule. | Start of deliverable preparation | 1 week | Deliverable Leader<br>QA Officer<br>Reviewer (for Stage b) |
| ii. Submit final draft to reviewer for content review and to WP leader for check with the GA | 15 days before the submission date | 5 days | Deliverable Leader<br>Reviewer (Stage b)<br><br>***Please note*: At the end of this Stage the Reviewer must notify the WP leader in case serious issues arise, which will need a second external reviewer to be appointed and Stage (ii) will be repeated** |
| iii. Address reviewer comments and approval by reviewer | 10 days before the submission date | 6 days for update and 2 days for approval by the Reviewer(s) | Deliverable Leader<br>Reviewer(s) (from Stage b) |
| iv. Check quality and content with the GA | 2 days before submission date | 2 days | Quality Assurance Officer<br>Project Manager / Coordinator |
| v. Submit to the EC | Submission date | n/a | Coordinator |

### 2.2.5. Method/approach to be used by the reviewers

When working with "Word" documents, reviewers' comments and contributions should be done using "track change" mode combined with specific text comments aligned with the specific section. Reviews based on a "pdf" document, are not acceptable, because they do not allow for easy modification of the text. It is also possible, when the comments are of a general nature to submit an accompanying text document (as a separate word, pdf file or explanations in an email).

The reviewers are invited to give detailed and constructive comments (with references, whenever possible/suitable) that will help the authors to improve the deliverable.

The following guide for reviewers (Table 2.2) lists the main points and questions that a (good) reviewer needs to consider, to perform an effective review of a project deliverable:

Table 2.2 The ARSINOE good reviewer guide

| Category | Questions/Important points |
|---|---|
| **Group A:** Length and structure of the deliverable | **Overall length.** Is the overall length of the deliverable justified?<br>**Overall style**. Does the document comply with the project editing standards? It needs to use the standard Template for Deliverables without altering the fonts and page layout. Also, landscape mode should be avoided as much as possible.<br>**Length of separate parts.** The reviewer should indicate parts that are overlong, irrelevant, and/or redundant. Also, the reviewer should indicate the parts which are too short or not enough elaborated.<br>**Sections and Chapters**. Does the deliverable include an *Executive Summary*, *Introduction*, *Conclusions, Next Steps* and *References* (if applicable) sections?<br>**Language**. Is the language standard/quality (in English) adequate? If not, the document should be reviewed and amended by a person fluent or native in English. The reviewer needs to recommend this (i.e., not to do it personally). The *responsibility for good language standard* remains with the partner responsible for the deliverable, not with the reviewer. |
| **Group B:** Content | **Compliance with GA**. Does the deliverable contain what was defined in the deliverable description in the Grant Agreement? If not, please indicate the parts where improvement is necessary.<br>**Logical consistence & clarity**. Is the content presented in a logical and to-the-point manner? Is the work performed and results presented clearly? If not please indicate the parts where the improvements are necessary.<br>**Executive Summary**. Is the Executive Summary comprehensible and short (maximum 1 page)? Does the Executive Summary list the related Deliverables? Does the Executive Summary include a paragraph about relation to EU policies (when applicable)?<br>**Appendices**. Are long lists, tables, forms, data and/or outputs in properly labelled Appendices? They should not interrupt the flow of the main text.<br>**Language quality (other than the quality of English)**. Are there any grammatical/typographical errors and/or incomprehensive sentences? If yes, please provide the authors with appropriate annotations.<br>**Overall content**. Does the deliverable require substantial revision or rewriting? If yes, please make precise suggestions how the deliverable can be improved.<br>**Other observations/comments.** Mention any other aspects that require revision. |

Additionally, the reviewers should take into consideration, when applicable, the issue of protection and management of Intellectual Property Rights (IPR) of the project results, making any suitable comments on this respect, or asking for advice the IPR officer (case specific).

### 2.2.6. Delays in the revision

In the case where, by unexpected reasons, the reviewer is not able to meet the deadline, the deliverable leader should be informed as soon as possible. If the reviewer cannot be replaced in time, or cannot meet the deadline, then the deliverable leader should inform the Project Manager via the leader of the WP within which the deliverable is produced, to discuss alternatives.

## 2.3 Evaluation of events

Meetings with external audiences and relevant external events of the project (e.g. Stakeholder and Dissemination events, Open Workshops, Conferences) should be evaluated by the participants to ensure high quality and continuous improvement. A model of questionnaire is provided **(Appendix A**) to be used and adapted to this purpose. This model can also be used for other events that partners might organise. In case of local stakeholder meetings, the form needs to be translated accordingly, if the meeting is taking place in a language other than English.

Specific project partners in WP8 (i.e., GAC and WE) have long experience in the matter and their own forms. Consequently, the other partners should ask for additional case specific advice and guidance in modifying the form for their own purposes.

# 3.0 ETHICAL CONSIDERATIONS

The purpose of Ethical Considerations is to offer the underlying principles and guidelines that the ARSINOE partners need to take into consideration. The ARSINOE project consists of a diversity of organisations, including universities, other research institutions, industrial partners, technology providers, Non-Governmental Organizations (NGOs), public authorities and other types of organisations. A central element in ARSINOE are the nine case studies. In the context of each case study stakeholders, including citizens, will be engaged for example through workshops, questionnaires, but also immersive environments (WP2) and living labs. The ethical principles and guidelines described here are general and cover both professional and research ethical issues, and project internal as well as external dimensions. This is described in further details below.

Ethical principles and guidelines described in this document make up the basis for:

- identifying and recruiting research participants (including stakeholders);
- obtaining informed consent for the participation of humans in project activities;
- managing any ethical risks associated with their participation.

Templates for the informed consent/assent forms and information sheets are provided.

The Data Management Plan (DMP) is a separate related deliverable due for M6 (D1.3) and covers all the ethical matters related to data management. Consequently, this document focuses on the ethical considerations involving humans participating in the research activities and their personal data protection. Overall:

**Humans**

• This research project involves human participants

• They are volunteers for social or human sciences research

**Protection of personal data**

• This research project involves personal data collection and/or processing

## 3.1 Ethical considerations regarding humans

In ARSINOE, human participants will be asked to complete anonymous surveys or participate meetings, workshops and/or focus groups, including participation in the Athena Research Centre Virtual Reality (VR) Laboratory (WP2) to anonymously respond to specific questions via software for the development and implementation of the Systems Innovation Approach (SIA), which is a core component of the project. The following details the procedures and ethical issues which will be implemented in ARSINOE for these specific activities:

The humans participating in research activities (stakeholders and/or citizens) will be contacted by a project researcher who is:

- Thoroughly knowledgeable about the study;
- Able to answer questions;
- Trained in the voluntary nature of research participation;
- The most appropriate person to contact prospective participants.

The participating stakeholders in ARSINOE are expected to include professional managers, technology experts, policy makers, members of public bodies (local authorities) and end users of the innovation packages.

General procedures for the engagement of the stakeholders and criteria used, will be according to the Systems Innovation Approach (SIA) principles[1]. Systems Innovation can be understood as a combination of systems thinking and the process of innovation to enable transformative change within complex systems, as they are detailed in WP2.

They participants will be provided with GDPR-compliant information sheets explaining the research purpose, the data collected and their management, and will be asked to sign informed consent form if they accept to participate.

Survey participants will be provided with written and verbal information about the scope and purpose of the interviews, the types of questions that are likely to be asked, the use to which the results will be put, the method of anonymization, and the extent to which participants' utterances will be used in reports. Participants will be given time to consider their participation and will then be asked to sign an agreement on informed consent.

The agreement will stipulate that participation in the project is voluntary, that their identity will be protected, and that they can withdraw (their participation and data) from the project whenever they wish.

The consent form will be developed on the basis of the following criteria:

- Simple language;
- Concise information, with a possibility to find more information, if desired;
- Written in co-operation with participants, in case further explanations are needed;

[1] https://www.climate-kic.org/insights/visual-toolbox-for-system-innovation/

- In consideration of ethnical and other differences;
- In consideration of the fact that is hard to establish whether someone is truly informed;
- Providing information regarding personal data protection.

There will be no video/audio recording of the participants recruited. The procedure will anonymously categorize participants (by age, sex, educational level) and no other personal data will be kept.

All participants have the right for their participation to remain confidential in that only researchers will be aware who has participated. In general, all data will also be anonymous in the final report so that nothing can be attributed back to an individual participant. There are exceptions, for instance where participants wish to be identified, however written informed consent will be always obtained from the individual participant in advance. The research participants can freely give/withhold consent, by simply notification, without undue pressure will be provided.

The consortium will ensure respect for people and for human dignity, fair distribution of research benefits and burden and protecting the values, rights and interests of the research participants. Research methodologies will not result in discriminatory practices or unfair treatment.

The research will not involve children (or other persons unable to give consent) or human experimentation. Participation will not entail any psychological, social, legal or any other type of harm. All sampling methods and recruitment processes will be fully transparent, non-discriminatory and ethically sound.

A draft participant **information sheet** and informed **consent form** is included in **Appendix B**, which will be adapted, according to the content of each separate event organized within ARSINOE, involving external participants.

## 3.2 Protection of personal data

The project team recognises the importance attached to ensuring the protection of personal data of participants in any part of the research process. As a transdisciplinary project, ARSINOE involves a high level of engagement with people for different purposes (e.g. focus groups, interviewees, survey respondents, workshops). This document provides a record of acknowledgement of compliance of the partners in ARSINOE with all relevant national laws and regulations on the collection and handling of personal data, such as the General Data Protection Regulation (GDPR) (EU) 2016/679. Detailed information is given on the procedures for data collection, storage, protection, retention, and destruction of personal data, and procedures for informed consent.

Each partner organisation which is responsible for collecting, analysing and storing data, as set out in the Description of Work and the project Data Management Plan, have procedures in place for ensuring the confidentiality and protection of personal data.

We will ensure respect for people and for human dignity, fair distribution of research benefits and burden and protecting the values, rights and interests of the research participants. Research methodologies will not result in discriminatory practices or unfair treatment. The research will not involve children (or other persons unable to give consent) or human experimentation. Participation will not entail any psychological, social, legal or any other type of harm. All sampling methods and recruitment processes will be fully transparent, non-discriminatory and ethically sound.

All data gathered and used during the project is managed in accordance with data protection rules and a dedicated Project Data Management Plan (Deliverable D1.3-M6). In relation to safeguard the rights and freedoms of the research participants the following measures will involve:

- For inclusion in any database, an explicit consent of the stakeholders will be obtained.
- Identify if previously collected personal data will be used.

Approval will be obtained from the appropriate national and local ethical committees of the country where the data are collected. All entities that manage data (utilities, research institutes) need to guarantee that they follow the Horizon 2020 ethical requirements.

The procedures applied include:

- the recruitment process that will be followed for the engagement of participants;
- the informed consent procedures that will be implemented for the participation of humans;
- templates of the informed consent forms and information sheet (Appendix B);
- where applicable, apply an incidental findings policy;
- where applicable, detailed information on the informed consent procedures that will be implemented in regard to the collection, storage and protection of personal data.

The procedure for the protection of personal data includes:

1) Securing the opinion or confirmation by the competent Institutional Data Protection Officer and/or authorization or notification by the National Data Protection Authority (which ever applies according to the Data Protection Directive (EC Directive 95/46, currently under revision, and the national law).

2) Where applicable, the Host Institution Data Protection Officer will review and provide an opinion/confirmation that all data collection and processing will be carried according to EU and national legislation, adhering to the project Data Management Plan (D1.3), which details the procedures:

- for data collection, storage, protection, retention and destruction and confirmation that they comply with national and EU legislation;
- of the sensitiveness of data collected in relation to values, identity and social norms and, where applicable, a justification in case of collection and/or processing of personal sensitive data.

With regards to security measures for collected data:

- Data will be stored at the Home institution of the partner conducting the research task in secure storage of all data including locked filing cabinets and password protected digital file spaces.
- Further details of the project procedures for managing data are described in the project Data Management Plan (Deliverable D1.3-M6).

With regards to anonymisation/pseudonymisation techniques that are to be implemented:

- All informants will be anonymous in the presentation of the results.
- The process of anonymization will differ according to type of data gathering procedure.
  - In case of the questionnaire surveys, the name of the informants and contact details will be known only to the partner conducting the research task or subcontracted professional company that will sample members of properly managed online access panels. Any personal information that the respondents provide will be stored electronically on a secure server of the partner conducting the research task or professional company and protected by a password.
  - Name, address, phone number, and email will not be used as part of any work done on the research study itself. Respondents will be assigned random ID numbers by the company. Researchers who will analyze survey data will see only these random ID numbers.

- Researchers will not be provided with any information that would allow them to associate that ID number with a person.
- In case of the qualitative pre-surveys, the name of the informants will be known to the researcher/data collector who conducts the interviews. All partners collecting and analyzing qualitative data will further comply with the following principles and national policy requirements:
    - All data will be anonymized at source: participants will choose a synonym before commencing recorded interviews and focus group sessions. Any information connecting the synonym with the name will be kept separate from the data and secured.
    - Where necessary, anonymization of all personal data at transcription stage, ensuring that confidential information cannot be traced to specific individuals.
    - Secure storage of all data in locked filing cabinets and password protected digital file spaces.
    - Data will only be accessible to named project partners and subcontracted research staff working directly on the project.
    - Only where participants explicitly (verbally and in writing) do not wish to remain anonymous (e.g. to maintain ownership of the content and implications of their stories), their data will be connected to their person. If they wish, participants can even support the dissemination of research results themselves participating, for instance, in the development of a project video reporting personal stories.

## 3.3 Ethics officer role and tasks – methods and procedures

The Ethics Officer (EO) of ARSINOE is a member of the PMT and PSB. The Ethics Office is Prof. E. Vavalis (UTH). There are three dimensions in which the EO engages in the project:

- Discussions of methodological enablers and barriers, especially prior to contacting stakeholders.
- Governance and communication issues.
- Ethics related issues involving stakeholders/ partners/citizen engagement.

The PMT meetings are the prime context and instrument for identifying and discussing any controversies or diverging (research related) ethical norms involving any partner. The regularity of the meetings, which are characterized by a high level of trust and open access mentality, offers a very good space for information flow and updates on the project.

The role and tasks of the EO is mainly to deliver ethical principles and guidelines, and to follow the progress of the project and to offer advice as needed. The Coordinator will refer to the EO any ethics issues related to:

- Reporting and communication procedures – between partners, and between project and society outside project.
- Knowledge production and publications from project (especially related to events involving stakeholders).
- Procedures for solving controversies.

Additionally, a main task for the EO is to give advice whenever requested or needed.

# 4.0 CONCLUSIONS

This document summarizes procedures to ensure a high quality of deliverables in ARSINOE, describes relevant roles and tasks related to quality assurance and quality monitoring (for Deliverables and events), as well as the procedure to conduct and report the work undertaken within the project at the highest possible quality level.

Additionally, this document presents the ethical considerations, procedures and actions that need to be carried out while engaging with stakeholders and citizens for research purposes, especially with regards to consent issues and personal data protection.

The document aims at being a **project execution handbook** and a reference for all project consortium members for the entire duration of ARSINOE.

# APPENDIX A: MODEL EVENT EVALUATION FORM

**[*Name of event*] Evaluation Form (Place, d*ate*)**

Dear [name],

It was a pleasure to have you in this event. We would like to know your opinion, so that we can improve future events and meet your expectations. Your identification is optional.

Thank you for your collaboration!

**Name** *(optional)*: _____

**Organization** *(optional)*: _____

**I.** Please rate each of the following items between 0 and 4 (0=not applicable (N/A); 1=excellent; 2=good; 3=average; 4=poor)

| **1. Meeting preparation and logistics (0=N/A; 1=excellent; 2=good; 3=sufficient; 4=poor)** | |
|---|---|
| Meeting information provided in advance (e.g. dates, venue, programme) | |
| Logistic arrangements to participate in the meeting: travel, accommodation, etc. | |
| Quality of hotel, meals, etc. | |
| Meeting venue (adequacy of the room where the meeting took place) | |
| Materials distributed during the meeting to support the sessions | |
| Comments: | |

| **2. Overall assessment of the meeting (0=N/A; 1=excellent; 2=good; 3= sufficient; 4=poor)** | |
|---|---|
| Attainment of the objectives of the meeting (the objectives of meeting were met) | |
| Positive and collaborative atmosphere among participants | |
| Duration of the meeting (1=adequate; 4=totally inadequate) | |
| Opportunity for individual participation and input in the meeting | |
| Comments: | |

| **3. Evaluation of sessions (0=N/A; 1=excellent; 2=good; 3= sufficient; 4=poor)** | | |
|---|---|---|
| **Day 1** | Clarity of presentations/speakers | Discussions (moderation, conclusions reached) |
| ***[name of session]*** | | |
| ***[name of session]*** | | |
| Comments to Day 1: | | |
| **Day 2** | Clarity of presentations/speakers | Discussions (moderation, conclusions reached) |
| ***[name of session]*** | | |
| ***[name of session]*** | | |
| Comments to Day 2: | | |

**II. In your opinion, what were the most positive and less positive aspects of the meeting?**

_____

_____

_____

**III. What suggestions do you have for future meetings?**

_____

_____

_____

# APPENDIX B: MODEL CONSENT FORM TEMPLATE

This is a sample template – to be adapted to the requirements of the particular event/study within the Project

[Title of research study/activity]

[Name of researcher]

**1. INTRODUCTION**

You are invited to take part in a research study which involves human participants who will be asked to complete anonymous surveys or anonymously respond to questions via software.

Please read this document carefully before deciding whether you will participate or not. We encourage you to ask all the questions you may have; it is important that you understand all the proceedings of the study, including possible risks and benefits. This informed consent document may include words that you do not understand. If this is the case, please ask the contact researcher or any other member of the study to fully explain the meaning of the word or piece of information you do not accurately understand. At all times, we assure the compliance with the current legislation.

**2. PURPOSE OF THE STUDY/PROJECT**

The overall objective of the ARSINOE project is to develop innovation packages for regional adaptation to climate change, to enhance resilience. The innovation packages are considered to be pathways to solutions, developed through a Systems Innovation Approach. They will be co-created and co-designed by stakeholders and experts.

This event/meeting specifically focuses on […. Specific details to be provided …]

**3. DURATION OF THE RESEARCH ACTIVITIES**

The activities of the ARSINOE project will last 48 Months

**4. RISKS OR INCONVENIENCES**

No risk is foreseen. You are only requested to be available to participate.

**5. BENEFITS**

By participating, you will have the opportunity to discuss about resilience to climate change, adaptation measures for your region and pathways for their implementation. It is likely that you will have the opportunity to learn even more about climate change impacts for your region.

With your participation you will make a substantial contribution to help us under-stand how regions are affected by climate change and which are the key issues in your area. This will allow us to develop tools to help local societies cope with extreme climate events.

**6. PRIVACY AND CONFIDENTIALITY**

Although some of your responses may be recorded (e.g., focus groups, interviews, or questions via software we will not report any personal identification. Information will be processed during the phase of data analysis and will be shown in project reports but only in aggregate forms, so it will not be possible for anyone to identify individual people. Our findings may be published in scientific journals or conferences and may be used in further studies. Nothing of the provided personal data will be handled out to third parties.

The authorization for the use and access to this information is valid until the end of the data analysis, but you can ask for all your data to be withdrawn and destroyed at any time. If and when you decide to withdraw your data, please contact the leading investigator and inform of your intention of leaving the

study. However, if you do provide us with this authorization now, you will not be able to participate in this study.

**7. CONTACT PERSONS**

For any questions or queries, please contact the lead task researcher, [……. Provide your name…] and the team working on this subject.

**8. CONFIRMATION**

You can participate in this study by signing this consent to authorize us to use the data you provide. I hereby declare:

- I am 18 years or older and am competent to provide consent. I am fully informed about the aims of the project and I understand that there is no compulsion to participate in the project. I understand that I may withdraw my participation at any stage.
- I understand the document providing information about this research and this con-sent form. All my questions have been answered to my satisfaction.
- I understand and agree that my data (e.g. collected by surveys, questionnaires, inter-views or focus groups) is used for scientific purposes; I have no objection that my data is published in scientific publications in a way that does not reveal my identity.
- I understand that, subject to the constraints above, no recordings will be replayed in any public forum or made available to any audience other than the current researchers/research team.
- I freely and voluntarily agree to be part of this research study.
- I understand that my participation is fully anonymous and that no personal details about me will be recorded.
- All information I give will be treated as confidential and anonymous.

I have received a copy of this agreement. This consent form is made pursuant to the relevant national, European data protection laws and regulations and personal data treatment obligations.

…… Name and surname of participant
…… Place, date, and signature of participant

**Statement of investigator's responsibility:**

I have explained to the potential participant the aims and objectives of this project as well as the procedures to attend and any possible risks or inconveniences. I have offered to answer any questions and fully answered such questions.

I believe that the participant understands my explanation and has freely given informed consent.

…… Name and surname of the researcher
…… Place, date, and signature of the researcher

Systems Innovation Approach (SIA) addresses the growing complexity, interdependencies and interconnectedness of modern societies and economies, focusing on the functions of the cross-sectoral system? as a whole? and on the variety of actors. The Climate Innovation Window (CIW) is the EU reference innovations marketplace for climate adaptation technologies. ARSINOE shapes the pathways to resilience by bringing together SIA and CIW, to build an ecosystem for climate change adaptation solutions. Within the ARSINOE ecosystem, pathways to solutions are co-created and co-designed by stakeholders, who can then select either existing CIW technologies, or technologies by new providers (or a combination) to form an innovation package. This package may be designed for implementation to a specific region, but its building blocks are transferable and re-usable; they can be re-adapted and updated. In this way, the user (region) gets an innovation package consisting of validated technologies (expanding the market for CIW); new technologies implemented in the specific local innovation package get the opportunity to be validated and become CIW members, while the society (citizens, stakeholders) benefits as a whole. ARSINOE applies a three-tier, approach: (a) using SIA it integrates multi-faceted technological, digital, business, governance and environmental aspects with social innovation for the development of adaptation pathways to climate change for specific regions; (b) it links with CIW to form innovation packages by matching innovators with end-users/regions; (c) it fosters the ecosystem sustainability and growth with cross-fertilization and replication across regions and scales, at European level and beyond, using specific business models, exploitation and outreach actions. The ARSINOE approach is show-cased in nine widely varied demonstrators, as a proof-of-concept with regards to its applicability, replicability, potential and efficacy.

ARSINOE

CLIMATE RESILIENT-REGIONS THROUGH SYSTEMIC SOLUTIONS AND INNOVATIONS

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