Waste Quantification Solutions to Limit Environmental Stress

Lead Partner: University of Trás-os-Montes and Alto Douro

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Executive Summary

Ethics and ethical compliance are fundamental components of all EU Horizon projects. The WASTELESS project is committed to upholding the highest ethical standards and complying with all relevant EU, international, and national laws governing ethical principles. The WASTELESS project is dedicated to maintaining the highest ethical standards and adhering to applicable EU, international, and national laws on ethical principles. Accordingly, this deliverable, D9.1 (POPD - AI - H - NEC - Requirement No. 1), provides detailed information and authorizations/approvals related to activities raising ethical issues, which will be verified during the project's Ethics Check.

This document outlines specific ethical requirements for the WASTELESS research, focusing on: i) the processing of personal data (POPD), ii) activities involving the development, deployment, and/or use of Artificial Intelligence (AI)-based systems or techniques, iii) the involvement of human participants (H) in the project, and iv) research activities conducted, either partially or entirely, in non-EU countries (NEC).

The WASTELESS project recognizes the paramount importance of research ethics in H2020-funded initiatives. Accordingly, the Consortium is committed to upholding the highest standards of ethical integrity by strictly adhering to all relevant national, EU, and international legislation. This dedication ensures that every aspect of the project aligns with the ethical guidelines and principles established to promote responsible and ethical research practices. The Consortium will implement rigorous oversight mechanisms and continuous ethical review processes to maintain compliance and integrity throughout the project's duration.

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List of Acronyms

Abbreviation / acronym	Description
AI	Artificial Intelligence
D	Deliverable
EC	European Commission
EU	European Union
FLW	Food Loss and Waste
FSC	Food Supply Chain
GA	Grant Agreement
GEP	Gender Equality Plan
H	Human beings
HE	Horizon Europe
M	Month
MS	Member state
NEC	non-EU countries
POPD	Processing of personal data
REA	Research Executive Agency
RRI	Responsible Research and Innovation
WP	Work Package

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1. Introduction

The WASTELESS project, which stands for Waste Quantification Solutions to Limit Environmental Stress, aims to analyze the sources and locations of food waste throughout the value chain. The project's findings will be used to develop new policies that address critical food-related societal challenges and their effects on human well-being. By providing digital tools for precise measurement of Food Loss and Waste (FLW) and creating effective prevention policies and business strategies, WASTELESS seeks to achieve long-term reductions in FLW, thus mitigating climate and environmental impacts. To successfully track and reduce FLW, WASTELESS will involve key players in the Food Supply Chain (FSC), including leading researchers, advisors, and public authorities. Their expertise and recommendations will be integrated into the project through a multi-actor partnership, promoting dialogue, knowledge exchange, and communication. This collaborative approach will foster the exchange of ideas and the development of new collaborations, enhancing the creation of innovative tools within the project's case studies and facilitating their replication beyond the project's scope.

The WASTELESS project is committed to upholding the highest ethical standards and the applicable European Union (EU), international and national law on ethical principles, as highlighted in Article 14 — Ethics and values of AGA – Annotated Grant Agreement. The partners must ensure the respect of basic EU values (e.g., respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities). The project will strictly adhere to the EC Ethics Self-Assessment Guidelines, including the EC Ethics and data protection. If any significant new ethical issues arise, the project beneficiaries will promptly notify the granting authority, the Research Executive Agency - REA.

The "Ethics" deliverable 9.1 (D9.1 - POPD - AI - H - NEC - Requirement No. 1) is a crucial deliverable within WP9 of the WASTELESS project, which describes all ethics requirements (e.g., relevant information, authorizations, and approvals) and ensure full compliance with ethical principles throughout the project. In this deliverable it is addressed ethical issues particularly related to the processing of personal data (POPD), activities involving the development, deployment and/or use of Artificial Intelligence (AI)-based systems or techniques, the involvement of Human beings (H) in the project, and research activities are conducted, partially or wholly, in non-EU countries non-EU countries (NEC).

"Ethics" is intrinsically linked to research, and researchers often encounter ethical considerations as potential barriers scientific progress. However, these ethical boundaries are essential for maintaining the integrity of research activities and enhancing the willingness of subjects to participate in research protocols. The European Commission (EC) views research ethics as a collaborative and constructive process. Specifically, for Horizon projects, researchers are encouraged to consider ethical implications from the conceptual stage of their proposals, thereby improving the overall quality of the research. The legislation regulating Horizon 2020, emphasizes two types of ethics requirements: those relevant to the grant preparation phase and those pertinent to the ongoing project phase.

The process for assessing and addressing the ethical dimensions of activities funded under Horizon 2020 is known as the **Ethics Appraisal Procedure** This procedure ensures that all research activities are conducted in compliance with **fundamental ethical principles** (ALLEA - The European Code of Conduct for Research Integrity).

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2. Ethics legal framework, requirements and process in Horizon Europe

For all activities funded by the EU, the ethical dimension is integral to research from beginning to end, with ethical compliance being pivotal to achieving genuine research excellence. There is a clear need to conduct a thorough ethical evaluation from the conceptual stage of the proposal, not only to respect the legal framework but also to enhance the quality of the research. Ethical research conduct involves the application of fundamental ethical principles and legislation to scientific research across all domains. This includes the adherence to the highest standards of research integrity as outlined in ALLEA - The European Code of Conduct for Research Integrity. The process for assessing and address the ethical dimension of activities funded under Horizon Europe is called the **Ethics Appraisal Procedure**.

In addition to evaluating scientific merit, management quality, and potential impact, the Ethics Appraisal ensures that all research activities conducted under Horizon Europe comply with **fundamental ethical principles** (ALLEA - The European Code of Conduct for Research Integrity. These principles include:

- **reliability** in ensuring the quality of research reflected in the design, the methodology, the analysis and the use of resources;

- **honesty** in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair and unbiased way;

- **respect** for colleagues, research participants, society, ecosystems, cultural heritage and the environment;

- **accountability** for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts and means that beneficiaries must ensure that persons carrying out research tasks follow the good research practices and refrain from the research integrity violations described in this Code.

Also, all research activities implemented in the Horizon 2020 framework must comply with ethical principles, as well as relevant national, EU and international **legislation**, and respect the project project's ethics requirements described in the **Grant Agreement** (GA).

Article 19 of Horizon Europe framework Programme Regulation 2021/695 (Regulation (EU) No 2021/695 of the European Parliament and of the Council)**:**

"Entities participating in the action shall provide (a) an ethics self-assessment identifying and detailing all the foreseeable ethics issues related to the objective"

"Proposals shall be systematically screened to identify actions which raise complex or serious ethics issues and submit them to an ethics assessment"

Article 14 of the Model GA (AGA – Annotated Grant Agreement)**:**

"The action must be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles"

"The beneficiaries must commit to and ensure the respect of basic EU values (such as respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities)"

The beneficiaries are required to prioritize several fundamental ethical principles, including proportionality, the right to privacy, protection of personal data, physical and mental integrity, non-discrimination, and ensuring environmental protection and high standards of human health protection.

In addition, the beneficiaries must respect the fundamental principle of research integrity, as set out in the ALLEA - The European Code of Conduct for Research Integrity, must ensure that persons carrying out research tasks

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follow the good research practices including ensuring, where possible, **openness**, **reproducibility** and **traceability** and **refrain** from the research integrity violations described in the Code.

Moreover, before initiating any action task that raises ethical issues, beneficiaries must obtain all necessary approvals or mandatory documents from relevant bodies such as national or local ethics committees, or data protection authorities. These documents must be securely stored and made available upon request by the coordinator to the granting authority.

Consequences of non-compliance, according to Chapter 5 of Model GA (AGA – Annotated Grant Agreement)**:**

– Article 28: Grant reduction

– Article 29: Payment deadline suspension

– Article 30: Payment suspension

– Article 31: GA suspension

– Article 32: GA or beneficiary termination

– Article 33: Damages

– Article 34: Administrative sanctions and other measures.

Also, according to Article 18 of the Regulation 2021/695, several research activities not eligible for funding:

– Research activities aiming at human cloning for reproductive purposes

– Research intended to modify the genetic heritage of human beings which could make such changes heritable

– Research activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer

– No funding to research activities that are prohibited in all Member States

– No funding to research activities in a Member State forbidden in that MS

– Activities that lead to the destruction of human embryos.

3. Ethics Appraisal Procedure

The Ethics Appraisal Procedure concerns all activities funded in Horizon Europe and includes the **Ethics Review Procedure**, conducted before the start of the project, as well as **Ethics Checks, Reviews and Audits** conducted during the project. The aim is to ascertain that expected standards are met and that risks to research subjects and researchers are minimised.

Ethics Review Procedure

All proposals above the threshold and considered for funding will undergo an Ethics Review conducted by independent ethics experts. This process begins with an Ethics Screening, which may include a pre-screening to confirm the absence of ethics issues if none are identified in the proposal. If needed, a more detailed **Ethics Assessment** is carried out, potentially leading to ethics requirements that become contractual obligations.

The Ethics Review Procedure focuses on ensuring compliance with ethical rules and standards, relevant European legislation, international conventions and declarations, national authorizations, and ethics approvals. It also evaluates the proportionality of the research methods and the applicants' awareness of the ethical aspects and social impact of their planned research.

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The ethics review covers issues as:

– human rights and protection of human beings

– animal protection and welfare

– data protection and privacy

– health and safety

– environmental protection

– artificial intelligence.

It may also cover issues of research integrity, including, fabrication, falsification and plagiarism in proposing, performing, or reviewing research or in reporting research results; this includes misrepresenting credentials and improprieties of authorship.

Ethics Screening

The Ethics Screening is carried out during the scientific evaluation or soon after. The ethics experts are asked to flag the proposals that have serious or complex issues (on the basis of the Guidelines on serious and complex ethics issues) that will be the subject of a more in-depth analysis (Ethics assessment).

Ethics Assessment

The Ethics Assessment is an in-depth analysis of the ethical issues of the proposals, considering the analysis made during the Ethics screening. The Ethics Assessment can lead to ethics requirements that are inserted as obligations in the grant agreement.

If the proposal undergoes an Ethics Assessment, it will be received an ethics summary report with an ethics opinion on your proposal. The possible outcomes of the ethics assessment are **Ethics requirements and Ethics work package:**

– Any ethics requirements due after the project starts are automatically included in the grant agreement as deliverables. These are referred to as “ethics deliverables” and are placed in an automatically generated work package titled “ethics requirements”.

– Work package “ethics requirements”, if applicable, is added to your grant agreement as soon as the ethics assessment has been completed

Ethics checks, reviews and audits

During the Ethics Screening or the Ethics Assessment, the experts identify the projects that need an Ethics Check or Review, which are executed during the course of the research project.

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4. Ethics self-assessment

When preparing a proposal, it is required to conduct an **Ethics Self-assessment** starting with the completion of an Ethics Issues Table (Table 1), according to EC Ethics Self-Assessment Guidelines.

Table 1. WASTELESS Ethics Self-assessment

1. Human Embryonic Stem Cells and Human Embryos	
Does this activity involve Human Embryonic Stem Cells (hESCs)?	○ Yes ◉ No
Does this activity involve the use of human embryos?	○ Yes ◉ No
2. Humans	
Does this activity involve human participants?	◉ Yes ○ No
Are they volunteers for non medical studies (e.g. social or human sciences research)?	○ Yes ◉ No
Are they healthy volunteers for medical studies?	○ Yes ◉ No
Are they patients for medical studies?	○ Yes ◉ No
Are they potentially vulnerable individuals or groups?	○ Yes ◉ No
Are they children/minors?	○ Yes ◉ No
Are they other persons unable to give informed consent?	○ Yes ◉ No
Does this activity involve interventions (physical also including imaging technology, behavioural treatments, etc.) on the study participants?	○ Yes ◉ No
Does this activity involve conducting a clinical study as defined by the Clinical Trial Regulation (EU 536/2014)? (using pharmaceuticals, biologicals, radiopharmaceuticals, or advanced therapy medicinal products)	○ Yes ◉ No
3. Human Cells / Tissues (not covered by section 1)	
Does this activity involve the use of human cells or tissues?	○ Yes ◉ No
4. Personal Data	
Does this activity involve processing of personal data?	◉ Yes ○ No
Does it involve the processing of special categories of personal data (e.g.: genetic, biometric and health data, sexual lifestyle, ethnicity, political opinion, religious or philosophical beliefs)?	○ Yes ◉ No
Does it involve profiling, systematic monitoring of individuals, or processing of large scale of special categories of data or intrusive methods of data processing (such as, surveillance, geolocation tracking etc.)?	○ Yes ◉ No
Does this activity involve further processing of previously collected personal data (including use of preexisting data sets or sources, merging existing data sets)?	○ Yes ◉ No
Is it planned to export personal data from the EU to non-EU countries? Specify the type of personal data and countries involved	○ Yes ◉ No
Is it planned to import personal data from non-EU countries into the EU or from a non-EU country to another non-EU country? Specify the type of personal data and countries involved	○ Yes ◉ No
Does this activity involve the processing of personal data related to criminal convictions or offences?	○ Yes ◉ No
5. Animals	
Does this activity involve animals?	○ Yes ◉ No
6. Non-EU Countries	
Will some of the activities be carried out in non-EU countries?	◉ Yes ○ No
Agroscope, involved in the project as associated company, is a Swiss organism. They will take part to the case study, and deals with Swiss costumers with questionnaires.	
In case non-EU countries are involved, do the activities undertaken in these countries raise potential ethics issues?	○ Yes ◉ No
It is planned to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?	○ Yes ◉ No
Is it planned to import any material (other than data) from non-EU countries into the EU or from a non-EU country to another non-EU country? For data imports, see section 4.	○ Yes ◉ No
Is it planned to export any material (other than data) from the EU to non-EU countries? For data exports, see section 4.	○ Yes ◉ No
Does this activity involve low and/or lower middle income countries, (if yes, detail the benefit-sharing actions planned in the self-assessment)	○ Yes ◉ No
Could the situation in the country put the individuals taking part in the activity at risk?	○ Yes ◉ No

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Table 1. cont.

7. Environment, Health and Safety		
Does this activity involve the use of substances or processes that may cause harm to the environment, to animals or plants.(during the implementation of the activity or further to the use of the results, as a possible impact) ?	○ Yes	◉ No
Does this activity deal with endangered fauna and/or flora / protected areas?	○ Yes	◉ No
Does this activity involve the use of substances or processes that may cause harm to humans, including those performing the activity.(during the implementation of the activity or further to the use of the results, as a possible impact) ?	○ Yes	◉ No
8. Artificial Intelligence		
Does this activity involve the development, deployment and/or use of Artificial Intelligence? (if yes, detail in the self-assessment whether that could raise ethical concerns related to human rights and values and detail how this will be addressed).	○ Yes	◉ No
9. Other Ethics Issues		
Are there any other ethics issues that should be taken into consideration?	○ Yes	◉ No

4.1 Human beings

The research activities involve interactions with Human beings, research or study participants, encompassing various aspects such as the collection of biological samples, personal data, medical interventions, interviews, observations, tracking, or the secondary use of information obtained from sources like other research projects, official records, or social media sites.

The procedures for compliance of activities of this project with ethical requirements related to the guidelines of Horizon 2020 projects. This includes the general data protection requirements that will be considered while performing the pilot tests and consulting the stakeholders as well as the informed consent procedures for participation in surveys, interviews, meetings and dissemination activities organized by the project.

It must be ensured the respect for people and for human dignity and fair distribution of the benefits and burden of research, and that you must protect the values, rights and interests of the research participants.

Moreover, it is crucial to obtain:

– the necessary ethics approvals (if required)

– free and fully **Informed consent** of the research participants

"Informed Consent is the decision, which must be written, dated and signed, to take part in a clinical trial, taken freely after being duly informed of its nature, significance, implications and risks and appropriately documented, by any person capable of giving consent or, where the person is not capable of giving consent, by his or her legal representative; if the person concerned is unable to write, oral consent in the presence of at least one witness may be given in exceptional cases, as provided for in national legislation."

Participation must be entirely voluntary and you must obtain and clearly document participants' informed consent in advance. No consent is required if national law provides for an exception (e.g. in the public interest).

Participants must be given an informed consent form and detailed information sheets that:

– are written in a language and in terms they can fully understand

– describe the aims, methods and implications of the research, the nature of the participation and any benefits, risks or discomfort that might ensue

– explicitly state that participation is voluntary and that anyone has the right to refuse to participate and to withdraw their participation, samples or data at any time

— without any consequences

– state how biological samples and data will be collected, protected during the project and either destroyed or reused subsequently

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– state what procedures will be implemented in the event of unexpected or incidental findings (in particular, whether the participants have the right to know, or not to know, about any such findings).

The potential participants must have fully understood the information and do not feel pressured or coerced into giving consent. Moreover, normally the participants must give their consent in writing (e.g. by signing the informed consent form and information sheets).

In addition, when conducting surveys, interviews or focus groups where personal information is gathered and stored, you must also pay attention to:

– privacy

– data protection

– data management

– the health and safety of participants.

4.2 Personal data

All research activities which involves processing of personal data, regardless of the method used (e.g. interviews, questionnaires, direct online retrieval, etc.).

According to Ethics and data protection, "Personal data" means information relating to an identified or identifiable natural person.

An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Examples: name, address, identification number, pseudonym, occupation, e-mail, CV, location data, Internet Protocol (IP) address, cookie ID, phone number, data provided by smart meters, data held by a hospital or doctor. Individuals are not considered 'identifiable' if identifying them requires excessive effort. Completely anonymised data does not fall under the data privacy rules (as from the moment it has been completely anonymised).

Processing normally covers any action that uses data for research purposes (even if interviewees, human volunteers, patients, etc. are not actively included in the research).

The Personal data may come from any type of research activity (ICT research, genetic sample collection, tissue storage, personal records (financial, criminal, education, etc.), lifestyle and health information, family histories, physical characteristics, gender and ethnic background, location tracking and domicile information, etc.).

Also, Personal data must be processed in accordance with certain principles and conditions that aim to limit the negative impact on the persons concerned and ensure fairness, transparency and accountability of the data processing, data quality and confidentiality. This implies the following main obligations:

– Data processing should be subject to appropriate safeguards

– Data should wherever possible be processed in anonymised or pseudonymised form.

– Data processing is subject to free and fully informed consent of the persons concerned (unless already covered by another legal basis, e.g. legitimate or public interest)

– Data processing must NOT be performed in secret and research participants must be made aware that they take part in a research project and be informed of their rights and the potential risks that the data processing may bring.

– Data may be processed ONLY if it is really adequate, relevant and limited to what is necessary for the research.

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– Data processing operations which are more intrusive and likely to raise higher ethics risks must be subject to higher safeguards.

– For complex, sensitive or large-scale data processing or data transfers outside of the EU, it should be consulted the data protection officer (DPO), or a suitably qualified expert.

– The level of data security must be appropriate to the risks for the research participants occurring in case of unauthorized access or disclosure, accidental deletion or destruction of the data.

– Beneficiaries are responsible for any partners, contractors or service providers that process research data at their request or on their behalf.

Generally, to avoid/limit data protection issues for the project is to use anonymised or pseudonymised data.

"Anonymised" means that the data has been rendered anonymous in such a way that the data subject can no longer be identified (and therefore is no longer personal data and thus outside the scope of data protection law).

"Pseudonymised" means to divide the data from its direct identifiers so that linkage to a person is only possible with additional information that is held separately.

4.3 Non-EU countries

All research activities involving non-EU countries, namely:

– activities are conducted, partially or wholly, in a non-EU country

– participants or resources come from a non-EU country

– material is imported from or exported to a non-EU country.

Being outside the reach of European laws and standards, such research can raise specific ethical issues (particularly in developing countries), such as:

– exploitation of research participants

– exploitation of local resources

– risks to researchers & staff

– research that is prohibited in the EU.

The Horizon 2020 funding cannot be granted for activities carried out outside the EU if they are prohibited in all MS.

4.4 Artificial intelligence

Several activities within this project involve the development, deployment and/or use of AI-based systems or techniques. Examples include AI in military such as decision and planning support, collaborative combat, cybersecurity and digital influence, logistics and operations, robotics and autonomy, support services, target identification, and engagement.

The deployment and use of an AI solution can significantly impact the ethical characteristics of these systems. Therefore, it is crucial to ensure ethical compliance, even if your project does not directly develop an AI-based system or technique.

Currently, a proposal for a regulation establishing harmonized rules on AI (Ethics guidelines for Ttrustworthy AI) is currently awaiting adoption by the EU legislator. Once in force, this regulation may impact your project activities. In the interim, we strongly recommend that beneficiaries utilize the Assessment List for Trustworthy Artificial Intelligence (ALTAI) to develop procedures for identifying, evaluating, and addressing potential risks.

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Trustworthy AI has three components, which should be met throughout the system's entire life cycle:

– it should be lawful, complying with all applicable laws and regulations

– it should be ethical, ensuring adherence to ethical principles and values

– it should be robust, both from a technical and social perspective, since, even with good intentions, AI systems can cause unintentional harm.

Moreover, according to Trustworthy and Ethical Artificial Intelligence it is necessary to respect specific key values, such as:

– Human agency and oversight

– Privacy and data protection

– Fairness, diversity and non-discrimination

– Accountability

– Transparency

– Societal and environmental well-being.

It should be noted that the, the ethics risk assessment and risk mitigation measures must cover the development, deployment and post-deployment phases. Not only the development, also the use of AI-based systems or techniques in the research. E.g. AI-based data analytics. Also, during acquisition and implementation of AI-based application, the system must be assessed and monitored to ensure compliance.

5 WASTELESS ethical dimension of the objectives, methodology and likely impact

Ethics surveillance ensures that WASTELESS activities are ethically compliant with relevant national, EU and international legislation, including the Charter of Fundamental Rights of the EU, considering the demand for scrutiny of research and development by society and alignment to Responsible Research and Innovation (RRI) principles.

WASTELESS aims to understand the way the FW is produced and where in the value chain. This includes new policy based on the results and direct consequences on major food issues in society, that deals directly with social impact on human beings. By providing digital tools for better measurement of FLW and establishing better prevention policy actions and business strategies, WASTELESS will contribute in the long term to reduce overall FLW reducing climate and environmental stress. The solutions will bring added value for higher circularity of food systems and the open access to all research outputs, FLW data generated and most of the tools and the multi-actor collaboration outside of the consortium partners will result in the inclusion and engagement of the consumers in the process.

WASTELESS common standards and criteria for data collection allows project partners to propose policy improvements and eventually political reforms providing better business environment, improving data upload and helping each actor from farm to fork to enhance socio-environmental-economic performance. The project involves key actors of the FSC and their representatives supporting the FLW tracking and reduction, including well known researchers, advisors and public authorities. The project requires their inputs and recommendations concerning them directly and will use the project multi-actor partnership to foster dialogue, improve knowledge exchange and communication to encourage cross-fertilisation and novel collaboration, which will strengthen the development of innovative tools within the project case studies and replication outside the project.

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6 WASTELESS compliance with ethical principles and relevant legislations

WASTELESS proposal has been subject to an Ethics Review performed by independent ethics experts. Some Ethics issues have been identified, namely Humans, Personal Data, Non-EU Countries, and AI.

WASTELESS activities are compliant with the ethical principles and the applicable EU, international, and national laws for the ethics issues identified in the Ethics Summary Report and any additional ethics issues that may emerge in the course of the grant, will be ensured.

In WASTELESS project:

- No animal experimentation is outlined within the project, which raises no ethical issues.
- The activities don't raise ethics issues in Switzerland where Agroscope is based (non-EU country).
- Workshops, focus groups, surveys, interviews, and questionnaires will solely involve willing and voluntary adult participants, and will be provide informed consent regarding privacy policies and data protection (Annex section).
- The development and use of AI model as an analytical core for the digital platform aiming to build a multilayer FW management system and the blockchain technology supporting information sharing won't raise any ethical concerns related to human right and values (D2.3 – AI model - optimised set of tools and methodologies, by M25).
- To collect participant's sensitive personal data from PR4 (Automatic system for FW assessment at household level) application users, it will be requested to provide informed consent regarding privacy policies and data protection. Personal data will be encrypted and stored in a secure research folder within the digital workplace, managed exclusively by the designated data manager. Access to this folder is restricted to the data manager alone, and personal data will not be transported outside the network drives. Automatic daily backups of all research data will be performed by the division IT on networked drives. Informed consent, as required, will be collected in accordance with Article 7 of the General Data Protection Regulation. More details in D2.5 – Automatic system - optimised set of tools and methodologies, by M25.
- Throughout the project, to uphold confidentiality, all data files will be securely transmitted through protected connections. It is critical that personal data will not be storage in open data repositories, WASTELESS Website and Zenodo. Also, passwords will not be shared via email, but instead exchanged through direct, personal communication between the partners. This approach ensures enhanced security measures are in place for data transfer. More details in D4.1 – WASTELESS data collection, interoperability, and governance plan, D8.3 – Data Management Plan – update.
- The data must be processed as established in the WASTELESS GA (Article 13 - Confidentiality and Security and Article 15 - Data Protection) in compliance with the applicable EU, international and national law on data protection (in particular, Regulation (EU) No 2016/679).
- The WASTELESS partners are authorized to provide their personnel with access to personal data solely for the purpose of implementing, managing, and monitoring the GA. It is the partners duty to guarantee that their personnel are obligated to maintain the confidentiality of such data. Additionally, it is required to notify individuals whose data is being transferred to the granting authority and furnish them with the Portal Privacy Statement. This ensures transparency and adherence to data protection regulations, enabling individuals to comprehend how their personal data is being handled. More details in D4.1 – WASTELESS data collection, interoperability, and governance plan, D8.3 – Data Management Plan – update.
- Each partner is accountable for ensuring the secure and safe storage of the data, based on their security policies and procedures, and adhering to the data protection laws of the EU. Once the project is concluded, the repository holding the dataset will assume all responsibilities pertaining to data

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recovery and secure storage. More details in D4.1 – WASTELESS data collection, interoperability, and governance plan, D8.3 – Data Management Plan – update.

- Each partner involved in the project will be responsible for ensuring the regular backup and secure storage of all generated data, whether in its raw form or derived from other partner's data. Internal safekeeping procedures will be followed to maintain the integrity and safety of the data. Additionally, if any data is shared within the Consortium, the data owner will also be accountable for determining and implementing appropriate methods for information sharing. This ensures that data ownership and data sharing practices are clearly defined and upheld throughout the project. More details in D4.1 – WASTELESS data collection, interoperability, and governance plan, D8.3 – Data Management Plan – update.
- Moreover, the ethics issues are closely followed and are part of WP8 project Coordination/Management, ensuring that ethical approvals will be secured and ethical good practices will be followed. A respective subtask on Ethics is dedicated (8.3.1) to ensure that the activities are compliant with the ethical principles. Besides, several versions of DMP are being developed (Task 8.1.2, D8.2, D8.3, D8.4) to define the modalities of confidentiality for exchange and storage of the data collected.
- Also, an Ethics Check is conducted during the project to ensure compliance with the ”ethics requirements”. A respective ethics Work Packages (WP9) including with the support of the current “Ethics” deliverable, D9.1, which includes all the information and authorisations/approvals related to the activities raising ethics issues to be verified during the Ethics Check.

The compliance with the ethical principles and the applicable EU, international, and national laws, as well as with the provisions set out in the WASTELESS GA, for the ethics issues identified in the Ethics Summary Report and any additional ethics issues that may emerge in the course of the grant, will be ensured. For any applicable ethics issue, the guidance provided in the Ethics Self-Assessment Guidelines is rigorously followed. In case any substantial new ethics issues arise, the beneficiaries will inform the granting authority, REA.

7 Gender equity

The beneficiaries must take all measures to promote equal opportunities between men and women in the implementation of the action and, where applicable, in line with the gender equality plan. They must aim, to the extent possible, for a gender balance at all levels of personnel assigned to the action, including at supervisory and managerial level.

Some WASTELESS beneficiaries have already implemented a **Gender Equality Plan** (GEP), covering the minimum process-related requirements listed below (HE guidance on gender equality plans):

– Publication: formal document published on the institution's website and signed by the top management

– Dedicated resources: commitment of human resources and gender expertise to implement it

– Data collection and monitoring: sex/gender disaggregated data on personnel (and students for establishments concerned) and annual reporting based on indicators.

– Training: Awareness raising/trainings on gender equality and unconscious gender biases for staff and decision-makers

– Content-wise, recommended areas to be covered and addressed via concrete measures and targets are:

o work-life balance and organisational culture

o gender balance in leadership and decision-making

o gender equality in recruitment and career progression

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- integration of the gender dimension into research and teaching content
- measures against gender-based violence including sexual harassment.

Neverthless, in WASTELESS project, the gender issues are addressed and monitored throughout all project activities with special focus on tool development and demonstration activities, particularly in, Task 8.3 – Ethics and & gender equality of WP8. WASTELESS will develop and implement a GEP as part of the RRI framework in HE.

The project will track the numbers of women and men involved in all activities, including their roles and positions within user communities. It will monitor datasets and published information to ensure the analysis of FLW data considers sex and/or gender as relevant variables. Gendered perspectives and feedback from user communities will be gathered through training and other means to promote gender-specific needs and solutions. This approach aims to enhance understanding of the implications for FLW and the impact of WASTELESS, while also providing policy inputs for research organizations and the broader EU community.

Additionally, the project will promote equal opportunities and balanced participation of women and men at all levels within research and innovation teams and management structures. Achieving gender balance may be more challenging for stakeholders from industry and policy sectors than from civil society or administration. The project aims for good representation of both genders in its activities and will address inequalities in an Equity Issues Report by M30.

All WASTELESS beneficiaries will be encouraged to use a WASTELESS sex and gender checklist throughout the project to raise awareness and serve as a reminder of the importance of considering sex and gender issues during implementation.

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8 Conclusions

The ethical evaluation process begins at the proposal stage and continues throughout the project's implementation. Accordingly, the D9.1 – POPD - AI - H - NEC - Requirement No. 1, details the guidelines and procedures for addressing various ethical issues that may arise during the WASTELESS project, particularly those related to research practices and technology development.

In the WASTELESS project, the welfare and dignity of all individuals involved in our research, including study participants, research staff, and other stakeholders are of utmost importance. This involves obtaining informed consent, protecting privacy and confidentiality, and preventing harm or exploitation. Additionally, this deliverable addresses the ethical criteria for involving non-EU countries.

To ensure accountability, clear roles and responsibilities are established, expectations for ethical behavior are set, and mechanisms for oversight and review are implemented. The project also ensure that the research complies with relevant laws, regulations, and professional codes of conduct. By adhering to these ethical principles, we guarantee that the project is conducted with the highest level of research integrity, guided by honesty, reliability, respect, and accountability, as outlined in the ALLEA - The European Code of Conduct for Research Integrity.

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9 Bibliography

AGA – Annotated Grant Agreement

ALLEA - The European Code of Conduct for Research Integrity

Assessment List for Trustworthy Artificial Intelligence (ALTAI)

Charter of Fundamental Rights of the EU

Ethics and data protection

Ethics guidelines for Trustworthy AI

General Data Protection Regulation

HE guidance on gender equality plans

How to complete your ethics self-assessment

Informed consent

Regulation (EU) No 2016/679

Regulation (EU) No 2021/695

Research Executive Agency - REA

Responsible Research and Innovation (RRI)

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Annex

CNTA

REGÍSTRATE Y PARTICIPA

Nombre *

Apellidos *

Correo electrónico *

Contraseña *

Repite la contraseña *

Acepto el tratamiento de mis datos de salud por parte de AIDISA.

He leído y acepto la Política de Privacidad Mundo Sabor.
Consulta aquí la Política de Privacidad Mundo Sabor.

Regístrame

POLITICA DE PRIVACIDAD

POLÍTICA DE PRIVACIDAD Y PROTECCIÓN DE DATOS DE CARÁCTER PERSONAL DE WWW.MUNDOSABOR.ES

TRATAMIENTOS DE DATOS PERSONALES A TRAVÉS DE LA PÁGINA WEB

En cumplimiento de lo establecido en la normativa aplicable de Protección de Datos, le informamos de que sus datos serán tratados como Responsable por CENTRO NACIONAL DE TECNOLOGÍA Y SEGURIDAD ALIMENTARIA (CNTA) con la finalidad de prestarle el servicio que el usuario solicite a través de nuestro formulario de contacto y, para ello, necesitamos que marque la casilla habilitada que indica la aceptación de esta política, de tal manera que si no lo hace no tendremos su consentimiento expreso y por ello no podremos dar respuesta a su solicitud.

Para la correcta prestación de los servicios ofrecidos por CNTA, es preciso que el usuario conteste a todas y cada una de las preguntas que aparecen en los formularios presentes en nuestro sitio web. Asimismo, el usuario declara que es mayor de edad.

El tratamiento de los datos de carácter personal solicitados tendrán además como finalidad del tratamiento el envío de información comercial relativa a productos y servicios ofrecidos actualmente y en el futuro por CNTA; esa información incluye comunicaciones publicitarias y promocionales, a través de correo postal, fax, correo electrónico o cualquier otro medio. Para realizar este tratamiento es necesario que el usuario marque la casilla habilitada al efecto en el formulario de la página web.

En el caso en el que el usuario se suscriba a nuestro blog su correo electrónico pasará a formar parte de nuestra base de datos para el envío de noticias. Para poder suscribirse a este servicio es necesario que marque la casilla de suscripción, en caso de no hacerlo no quedará suscrito a nuestro boletín.

Además, CNTA tratará datos especialmente protegidos en caso de que usted rellene alguna de nuestras encuestas sobre hábitos alimenticios. En ese caso, la base de legitimación será el consentimiento prestado por usted.

Dado el carácter personal de los datos facilitados, CNTA se compromete a tratarlos con estricta confidencialidad guardando el secreto debido, a este efecto, la entidad ha implantado las medidas de seguridad adecuadas conforme el análisis de riesgos realizado.

Le informamos que no se cederán sus datos a terceros ni se realizarán transferencias internacionales de datos, salvo obligación legal o cesión necesaria única y exclusivamente cuando sea necesario para la prestación del servicio solicitado, en cuyo caso se solicitará el consentimiento para ello.

Le informamos tanto de que no se cederán sus datos a terceros, como de que no se realizarán transferencias internacionales de datos, salvo obligación legal, cesión necesaria para la ejecución del contrato o que usted preste el consentimiento expreso.

Puede ejercer en todo momento sus derechos de acceso, rectificación supresión y oposición, así como su derecho a solicitar la limitación del tratamiento o realizar la portabilidad de sus datos en la dirección arriba indicada. Asimismo, tiene derecho a presentar una reclamación ante la Agencia Española de Protección de Datos como Autoridad de Control.

DERECHOS

Los datos recabados y tratados se conservarán por un plazo de tiempo limitado, dicho plazo será el necesario para cumplir las obligaciones legales impuestas a CNTA por las diferentes normativas aplicables.

El usuario como interesado puede ejercer en todo momento los siguientes derechos en la dirección indicada en el Aviso Legal:

Derecho de acceso: el interesado podrá solicitar al Responsable los datos tratados y en caso afirmativo qué datos personales concretos son tratados.

Derecho de rectificación: el interesado podrá solicitar al Responsable la corrección de sus datos personales en caso de no ser exactos.

Derecho de supresión: el interesado podrá solicitar al Responsable el borrado de sus datos personales.

Derecho de oposición: el interesado podrá oponerse a que el Responsable realice un tratamiento de sus datos personales.

Derecho a la limitación del tratamiento: el interesado podrá solicitar al Responsable que temporalmente no trate sus datos personales en unos supuestos concretos.

Derecho a la portabilidad: el interesado podrá solicitar al Responsable sus datos automatizados en un formato estructurado de fácil acceso y manejo.

Más información sobre sus derechos en www.agpd.es.

Asimismo, tiene derecho a presentar una reclamación ante la Agencia Española de Protección de Datos.

COOKIES

Los datos que serán almacenados en cada "cookie" son los siguientes: idioma, fecha y hora de la última vez que el usuario visitó nuestro Web, diseño de contenidos que el usuario escogió en su primera visita a nuestro Web y elementos de seguridad que intervienen en el control de acceso a las áreas restringidas.

Desde este sitio Web estudiamos las preferencias de nuestros usuarios (características demográficas, sus patrones de tráfico y otra información en conjunto para comprender el comportamiento y el perfil de nuestros usuarios). El rastreo de las preferencias de nuestros usuarios nos ayuda para mejorar nuestra Página así como nuestros servicios.

Vd. puede configurar su navegador para rechazar el almacenamiento de las cookies en su ordenador. Puede obtener más información en nuestra Política de Cookies.

Por último, para obtener una información más exhaustiva acerca del tratamiento que CNTA realiza de sus datos personales, puede consultar nuestra política de privacidad a través de la página web en el siguiente enlace:
www.cnta.es

Aceptar

This project has received funding from the European Union's Horizon Research and Innovation Action (HORIZON-CL6-2022-FARM2FORK-01) under Grant Agreement No. 101084222

Survey to invite FLW experts to get involved in the activities of the WASTELESS Community of Practice

Section 10 of 10

Thank you for taking the time to fill the form!

Submitting this form you agree with the use of your contact details by WASTELESS for information purposes.

Knowledge Sharing Platform survey

WASTELESS - Waste Quantification Solutions to Limit Environmental Stress (https://wastelesseu.com/) is an EU funded project with the aim to develop tools and recommendations for measuring and monitoring food loss and waste (FLW).

This survey addresses all food actors, including beneficiaries, consumers, and policy-makers, to determine what they want from a Knowledge Sharing Platform (KSP)!

This survey has **8** questions and takes approximately 10 min to complete.

Please consider sharing this survey with anyone who might have an interest in this topic.

All personal information will remain confidential and will not be shared or used beyond the purpose of this survey.

We want to hear from you!

This project has received funding from the European Union's Horizon Research and Innovation Action (HORIZON-CL6-2022-FARM2FORK-01) under Grant Agreement No. 101084222

wasteless

WORKABLE IDEAS & INITIATIVES 4 a SUSTAINABLE ECONOMY

Privacy Policy of **Survey Wasteless**

This Application collects some Personal Data from its Users.

Personal Data processed for the following purposes and using the following services:

Displaying content from external platforms

Google Fonts
Personal Data: Trackers; Usage Data

Hosting and backend infrastructure

Amazon Web Services (AWS)
Personal Data: various types of Data as specified in the privacy policy of the service

Registration and authentication provided directly by this Application

Direct registration
Personal Data: billing address; city; country; email address; field of activity; first name; last name; password; phone number; physical address; VAT Number

Contact information

Owner and Data Controller
WIISE SRL SOCIETÀ BENEFIT
Via dei Grottoni 67/16,
00149 Roma - Italy
Partita IVA: 12082111001

Owner contact email:
info@greatitalianfoodtrade.com

Privacy Policy*

Provide your consensus to the use of your personal information.

I hereby consent to the collection, storage, and processing of my personal information provided in this form by WIISE Chain Srl in accordance with the General Data Protection Regulation {GDPR) (Regulation (EU) 2016/679) and the privacy policy of the company

This project has received funding from the European Union's Horizon Research and Innovation Action (HORIZON-CL6-2022-FARM2FORK-01) under Grant Agreement No. 101084222

SDU
University of Southern Denmark

Food supply chain level survey

WASTELESS survey Food Losses and Wastes

WASTELESS project is an EU project funded by. Horizon Europe Programme. The aim of the project is to develop and test a mix of innovative tools and methodologies for Food Loss and Waste (FLW) measurement and monitoring.

The purpose of this survey is to identify what are the best practices for FLW measuring, monitoring and reporting and investigate business strategies for FLW reduction across the food supply chain actors namely: primary production, food processing industry, retailers, and food services.

All contributors will receive the analysis of survey results accompanied with recommendations for an improved framework for FLW measurement and monitoring.

This survey ensures the anonymity of the survey participants.

The data will be processed in aggregate form ensuring compliance with privacy legislation.

** Indicates required question*

Expert online survey questionnaire

Expert Consultation on Building the Food Loss and Waste Measurement Framework

WASTELESS - Waste Quantification Solutions to Limit Environmental Stress (https://wastelesseu.com/) is funded by the European Union's Horizon Europe Research and Innovation programme under Grant Agreement n° 101084222. This project aims to develop tools and recommendations for measuring and monitoring food loss and waste (FLW) which will ultimately contribute to its reduction by at least 20% annually.
This survey seeks expert insights to pinpoint the crucial elements of the FLW measurement framework. Once you've successfully submitted your responses, you're welcome to request the survey results and participate in the subsequent discussion on framework building.
This survey is divided into five sections. Each section comprises multiple questions, with the majority seeking your evaluation on the importance of framework components.
Please consider sharing this survey with colleagues or any experts who might have an interest in this topic.
Thank you for your invaluable contributions!

Please provide your name
We deeply value your privacy. Please be assured that your personal information will remain confidential and will not be shared or used beyond the purpose of this survey.

Please provide your email address
We deeply value your privacy. Please be assured that your personal information will remain confidential and will not be shared or used beyond the purpose of this survey.

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