D6.2: DATA MANAGEMENT PLAN – VERSION

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ABSTRACT

aWISH project aims to develop and offer a cost-efficient solution to evaluate and improve the welfare of meat producing livestock at a large scale, across Europe. This approach will be developed and evaluated in close collaboration with all actors involved, from primary producers up to policy makers and citizens.

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1.0	28/04/2023	UAB	Pol Llonch
			Xavier Manteca

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GLOSSARY OF ACRONYMS

Acronym / Term	Description
AW	Animal Welfare
AWI	Animal Welfare Indicator
aWISH	Animal Welfare Indicators at the SlaughterHouse
BPG	Best Practice Guide
CA	Consortium Agreement
DMP	Data Management Plan
EC	European Commission
GA	Grant Agreement
GDPR	General Data Protection Regulation
HE	Horizon Europe
NDA	Non Disclosure Agreement
ORD	Open Research Data
PSG	Project Steering Group
WP	Work Package

Deliverable executive summary

This data management plan of the Horizon Europe aWISH project (Animal Welfare Indicators at the Slaughterhouse) describes the data life cycle for the data to be collected, processed, and generated, applied methodologies and standards, and shared and open access data during the lifetime of the project and afterwards. During the execution of the aWISH project this living document will evolve and be updated regularly.

The DMP aims to ensure that aWISH activities are compliant with the Horizon Europe open access policy rules, recommendations of Open Research Data pilot and EU General Data Protection Regulations (EU Regulation 2016/679, EU Directive 2002/58/EC, EU Directive 2006/24/EC). Open science practices as described in the Grant Agreement will be implemented and are summarized in this deliverable: (1) Open access (scientific) publications, (2) Open access data, (3) Engage and involve citizens, and (4) Responsible and reproducible science. According to the EC Directorate-General for Research and Innovation (research) data should be Findable, Accessible, Interoperable, and Reusable (FAIR). These FAIR principles are also explained in this deliverable.

A Data Management Plan template for Work Packages is developed by EV ILVO and completed by the WP leads of aWISH. The data collection in the pilots, the privacy policy, general and expert panel consent forms, non-disclosure agreement of the stakeholder advisory board members and the ethical committee approvals are also explained in this DMP.

DISCLAIMER

This project has used a standard methodology already developed in IoF2020 project (Grant Agreement number: 731884), SmartAgriHubs project (Grant Agreement number: 818182*) following EU recommendations. Ad hoc modifications were added to comply with the Grant Agreement conditions for the aWISH project (Grant Agreement number: 101060818).*
The information and views set out in this deliverable are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the following information.

1. Introduction

1.1 Objective

The main objective of the Horizon Europe project animal Welfare Indicators at the Slaughterhouse (aWISH) is to develop and to offer the capacity to evaluate and improve the welfare of meat-producing livestock, pigs and chickens, throughout Europe via automated monitoring of animal-based welfare indicators at the slaughterhouse. aWISH aims to give feedback and advice on best practices to those responsible at the various stages of production, i.e. at the farm, at the catching team, during transport and at the slaughterhouse. This approach will be developed and evaluated in a cost-effective and objective way for the entire meat production chain, including small- and large- scale enterprises and both intensive and extensive production, and in close collaboration with all actors involved, from primary producers up to policy makers and citizens.

This deliverable D6.2 "Data Management Plan – version 1" of the aWISH project is part of Work Package 6 (WP 6) "Project management and coordination" (lead EV ILVO), and specifically Task 6.3 "Data Management Plan" (M1-M48). The Data Management Plan (DMP) describes the data life cycle for the (research) data to be collected, processed, and generated in aWISH, applied methodologies and standards, and shared and open access data during the lifetime of the project and afterwards. The DMP aims to ensure that aWISH activities are compliant with the Horizon Europe (HE) open access policy, recommendations of open research data pilot and EU General Data Protection Regulations (GDPR) (EU Regulation 2016/679, EU Directive 2002/58/EC, EU Directive 2006/24/EC). The DMP will evolve during the project, version 1 is prepared at M6 (this version) and version 2 and 3 of D6.2 will be available in M24 and M48, in the context of the periodic assessment of the project.

1.2 Methodology

The experience of WP 6 in other EU projects was used to develop this deliverable. First, the Grant Agreement was analyzed and summarized. Templates and forms were developed. Example DMPs of other projects were consulted, as well as the data manager of EV ILVO and the DMPonline tool. Documents were discussed in the Project Steering Group meeting with the project coordinator and all WP leads. WP and pilot leads were asked to fill in the templates and documents.

1.3 Link to other Tasks or WPs

With this DMP aWISH shows how to meet the responsibilities regarding data quality, data sharing and data security in all WPs, at the 6 pilots, and when collaborating with external stakeholders. The DMP will help to manage the data and helps others to use the data when shared with them. This DMP is closely linked to WP 3 and WP 4 for monitoring the data collection in the pilots and to WP 5 concerning the expert panels and members of the stakeholder advisory board.

1.4 Structure of the deliverable

First, the data management strategy is given including the open science policy rules of the European Commission. A next chapter contains the Data Management Plan template for the Work Packages and describes the data collection in the pilots, the privacy policy, the general and expert panel consent forms, the non-disclosure agreement of the stakeholder advisory board members and the ethical committee approval forms. In a final chapter the DMPs of the WPs are annexed as well as the dataset overview of the 6 pilots, privacy policy and NDA.

2. Data management strategy

2.1 Open science policy

The European Commission developed rules on open access to (scientific) publications and (research) data. The Open Research Data (ORD) pilot aims to improve and maximize access to and reuse of data generated by Horizon Europe projects. This pilot applies to data and metadata, i.e. the information needed to discover, use and understand data, needed to validate results in scientific publications, and other curated and/or raw data. It consists of 2 pillars:

- Developing a Data Management Plan
- Providing open access to (research) data if possible.

The aWISH project supports the open science policy of the European Commission and will be "as open as possible", taking into account consent for data sharing, IP rights, etc.
The following open science practices will be implemented as described in the Grant Agreement:

- Open access (scientific) publications
- Open access (research) data
- Engage and involve citizens
- Responsible and reproducible science

Open access (scientific) publications

All (peer reviewed) scientific publications will follow the EC guidelines on Green/Gold open access with an open access journal/publisher. The Open Research Europe Platform will be considered for all publications of the consortium (https://open-research-europe.ec.europa.eu). Associated data will be linked to a repository with a persistent identifier in this publication.
Deliverables, milestone reports, presentations, webinar recordings, and other dissemination material will be open access with Creative Commons 0 or Creative Commons BY or equivalent and will be published on the project website and/or consortium Teams.
The main aWISH results, i.e. AWI catalogue, best practices guides, and training material, will be accessible for the long-term.

Open access (research) data

Research data and other, i.e. datasets, software, algorithms etc., should be made open access by default and licensed under the latest version of Creative Commons 0 or Creative Commons BY or equivalent. However, data should be "as open as possible, as closed as necessary" and in line with legal requirements. Exceptions can be made when providing open access to data:

- is against the beneficiary's legitimate interests, and would block commercial or industrial exploitation by partners;
- is contrary to any other constraints, such as data protection rules, privacy, confidentiality and proprietary data (unless it can be anonymized), trade secrets, Union competitive interests, security rules, intellectual property rights (IPR); or
- would be against other obligations under the Grant Agreement.

In such cases, data can be kept restricted, closed or under embargo. Available data will be as much as possible raw data, except when subject to GDPR, ethics or other legal objections. In that case aggregated or (pseudo) anonymized data can be stored.

All data generated by the project will be as FAIR as possible. External data where partners have access to is subject to contract with the owner, specifying the terms under which data can or cannot be published. The project coordinator, EV ILVO, will collect these contracts. Internal data sharing among project partners will be done on request and through the consortium Teams.
Each partner handling data in aWISH needs to appoint a responsible for data and data sharing in the DMP who will also be the data contact during and after the project with the end date depending on the storage duration of the data.
Data collected or co-owned by aWISH partners can be made available min. 1 year after data collection. Researcher can decide to make data earlier available if not in conflict with the consortium agreement.
Data will be made available in online repositories, depending on the type of data. Detailed metadata will be stored along with the data itself, helping people to understand, interpret, reproduce or reuse the data.
All details will be specified in the DMP of the work packages.

Engage and involve citizens

The European Commission aims to generate data as open as possible for greater impact for stakeholders and society. A **multi-actor approach** will be applied in co-creating the developments with the end-users at the pilots.
An expert panel will be designed and adds to the **participatory approach** into determining the project main directions and the collection of knowledge and experience of various stakeholders. Consumer organisations and relevant civil society organisations will be included in the expert panel for citizen engagement.
The **social science research** will identify stakeholders', citizens' and consumers' AW needs, opportunities and challenges and will inform the general public about this very important though sensitive topic taking into account several dimensions such as gender, culture, beliefs, age, education level, etc. through additional dedicated communication activities, such as training sessions and broadcasts in the participating countries.

Responsible and reproducible science

All research within aWISH should be done in a responsible scientifically integral way, should be reported to be reproducible and should be performed by correctly credited people. Open discussions are encouraged. The project coordinator, EV ILVO, has a scientific integrity committee which can be consulted with questions, comments, concerns or doubts about scientific integrity.
Ethics related to animal handling and experiments are described in the Ethics Rating Plan (Deliverable 6.5). Any animal experiment needs to be led by a FELASA Cat C animal experiment leader and needs to be reviewed and approved by an approved ethical committee, and monitored by trained vets and inspectors during execution following the 3R principle (reduction, replacement, refinement). The project coordinator is collecting these ethical committee approvals.

2.2 Management of research data and other outputs

The aWISH consortium follows a series of specific dedicated activities in respect to (research) data management which will be described in the DMP and regularly revised (M24 and M48).
All (research) data that will be generated in the Work Packages, pilots and during the execution of the aWISH project and the efficient management of publications will be described in the DMP and followed by the consortium in accordance with the EU open science policy. The DMP will minimise possible duplication of effort and the risk of data loss and will offer integrity to the data. Time and resources will be saved in the long term and compliance with industrial and commercial practices will be achieved.
The project coordinator, EV ILVO (WP 6), is responsible for the DMP. The data collection of the pilots is monitored by Biosense (WP 3) whereas the data platform that collects and centralizes data from the pilots and external data repositories needed for the feedback tool and research activities are Ubitech's responsibility (WP 4). At the end of the project, external data might need to be deleted depending on the contract with the data owner. aWISH data will be kept (and published) by any data co-owner for a duration agreed in the DMP.

According to the EC Directorate-General for Research and Innovation (research) data should be Findable, Accessible, Interoperable, and Reusable (FAIR) in all HE projects. FAIR data management is part of the ORD pilot promoted by the EC. The aim of the ORD is to improve and maximize the impact and reuse of (research) data generated by EU projects. The need to balance openness and protection of scientific information, commercialization and IPR, privacy concerns, security, as well as data management and preservation issues are taken into account in the ORD pilot. All partners are responsible to ensure their (research) outputs will be organized to be more assessed, understood, exchanged and reused according to the FAIR principles.

Findability of (research) data

Documents can be identified with a digital object identifier or other identifier (e.g. Handle System). The information needed to discover, use and understand data is referred to as metadata. Metadata provide enough information in order users know what can and cannot be done with your data (who, what, when, where, why, how of your data). All data and their metadata will be stored on the website and/or on trustworthy open digital repositories if not sensitive.
Publications and proceedings will be made open access, Green or Gold Open Access, and researchers will upload them on their personal or institutional repositories and use their ORCID IDs. They will ensure that the research data remain accurate, authentic, reliable, and complete.
Multimedia will be available through the aWISH website, social media accounts, and YouTube channel.
Other knowledge exchange platforms such as SmartAgriHubs' innovation portal (www.smartagihubs.eu), partners' websites, living lab websites, and SmartAKIS platform (www.smart-akis.com), will be used to reach specific target audiences and enhance knowledge exchange.

Accessibility of (research) data

Data and multimedia will be mainly open and shared, apart from confidential deliverables and partners' reports. Data part of commercial or industrial exploitation plans of the partners will be protected, but other algorithms, trainings, validation data will be published in scientific publications.
Agreements on IPR protection are described in the Consortium Agreement and signed by all partners.

Interoperability of (research) data

Data collection will be based upon a standard template design with common ontology that aligns all processes and reduces computing power and work to convert different databases to the same format. Data will be stored in open program independent formats or software and/or explanatory reports will be advised. The data platform will utilize a common semantic data model based on current available standards and extending them. Data exchange among WPs will be described in the WPs' DMP.

Reusability of (research) data

Appropriate licenses for data sharing and reuse will be used, i.e. Creative Commons 0 or Creative Commons BY or equivalent. Innovative results part of commercial or industrial exploitation of the partners will not be shared, but will be reused internally or for the further development of the products, services and extensions. The long-term preservation of the data will be described in this DMP (and next versions).
Research results will be broadly distributed and reusability will be encouraged in order to support future research and new hypotheses.

3. Data Management Plan Templates

3.1 Data Management Plan Work Packages

All WPs (Table 1) will produce (research) data(sets), i.e. in particular facts or numbers, generated or collected to be examined and considered as a basis for reasoning, discussion, or calculation during the lifetime of the project, and assign a main DMP contact person. In addition to the management of data also other (research) outputs that may be developed or reused throughout the project were considered. Such outputs are either digital (software, workflows, protocols, models, deliverables, presentations, website, newsletters, etc.) or physical (new materials, samples, etc.).

Table 1: List of 6 interrelated work packages.

WP 1	Communication, dissemination & exploitation.
WP 2	Animal welfare indicators & catalogue.
WP 3	Technology development & large-scale piloting.
WP 4	Monitoring & improving animal welfare.
WP 5	Assessment of socio-economic and environmental impacts.
WP 6	Project management & coordination.

WP 1 will generate multimedia materials based on communication, dissemination and exploitation actions. WP 2 will develop an AWI catalogue and scientific papers and will generate research data during validation of AWI and their methodology. WP 3 will collect a large amount of observational and experimental data from the 6 pilots. Both new data and data from existing sources will be used and described in the WP's DMP. Best practice guides and scientific papers will be written by WP 4 based on the pilots' data of WP 3. Scientific papers and datasets on environmental and economic factors from the pilots and from consumer surveys and stakeholder interviews will be made and stored by WP 5. GDPR-sensitive data of all WPs will be properly anonymized and secured.

A DMP template for Work Packages was developed using the guidelines of the EC and input from the Data Manager of EV ILVO, both available on www.dmponline.be.
The template consists of the following topics:

- Data summary: data types (observational, experimental, compiled/aggregated, simulation data, software, etc.), data formats (tabular, textual, geospatial, image, audio, video, documentation and computational script data), reusability, expected size, origin, and data utility.
- **F**AIR data: making data findable, including provisions for metadata: metadata and general standards, persistent identifiers, folder and file conventions, (research) keywords, and metadata harvest and index.
- F**A**IR data: making data accessible: open and shared data, trusted repositories, unique identifiers, licenses and citations, embargo, access protocol, data access committee, duration availability, and software.

- FA**I**R data: making data interoperable: data exchange and reusability, community-endorsed interoperability best practices, ontologies and vocabularies, and qualified references.
- FAI**R** data: increase data reuse: reusability, duration, validation of data analysis, public domain or standard reuse licenses, data provenance, third parties, and data quality assurance processes.
- Other research output: digital or physical.
- Allocation of resources: direct and indirect costs, data management responsibility, and long-term preservation.
- Data security: data recovery, secure storage/archiving, and data transfer.
- Ethics: ethical or legal issues, informed consent, and material transfer agreement.
- Other issues: national/funder/sectorial/departmental procedures for data management.

The DMP template was discussed with WP leads during the PSG meeting. All WP leads were responsible to complete the template together with the co-leads and task leads. The first version of the WPs' DMP did not provide deep elaboration of the entire data spectrum as the aWISH project is in a very early stage. Later versions of this living document will ensure the full coverage of all data management requirements. An update will be asked by month 24 as several decisions are not yet made. The DMPs of the WPs are annexed in chapter 4.1.

Data Management Plan Work Packages

Project	Animal Welfare Indicators at the SlaughterHouse	
Acronym	aWISH	
GA number	101060818	
DMP version	V1.0	
Work Package (WP)	…	*Each work package (WP) must identify the related (research) data(sets), i.e in particular facts or numbers, generated or collected to be examined and considered as a basis for reasoning, discussion, or calculation during the lifetime of the project.*
WP lead	…	
WP co-lead	…	
Main contact person DMP	…	
Date	…	

Data summary		*In addition to the management of data also other (research) outputs that may be generated or reused throughout the project should be considered. Such outputs can be either digital (software, workflows, protocols, models, deliverables, presentations, website, newsletters, etc.) or physical (new materials, samples, etc.).*
	What type of formats of data and other (research) outputs will the work package generate or re-use?	*List which types of (research) data the WP expects to generate, collect or use and the estimated volume for each data type. Data are often grouped by type (observational, experimental etc.), format and/or collection/generation method. Examples of data types are observational (e.g. survey results, sensor readings, sensory observations, measurements), experimental (e.g. microscopy, spectroscopy, chromatograms, gene sequences), compiled/aggregated data (e.g. text & data mining, derived variables, 3D modelling), simulation data (e.g. climate models), software, etc. Examples of data formats are tabular data (.por,. spss, structured text or mark-up file XML, .tab, .csv), textual data (.rtf, .xml, .txt), geospatial data (.dwg,. GML), image data, audio data, video data, documentation & computational script.*
	…	
	Will you reuse any existing data and what will you reuse it for?	*State the reason if reuse of any existing data has been considered but discarded.*

…

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package? …	*State the reason why the work package is collecting/will collect these specific data/datasets.*
What is the expected size of the data that you intend to generate or reuse? …	*Please estimate the upper limit of the digital volume of the data per dataset or data type (in Gb). Please estimate the physical volume of the (research) materials (for example the number of relevant biological samples that need to be stored and preserved during the project and/or after).*
What is the origin/provenance of the data, either generated or reused? …	*Indicate if data will be newly generated or reused. In case the work package will reuse existing data, provide information on their provenance (i.e. the source/origin of the data). In addition, give an overview of any other digital or physical (research) outputs (except for publications) if applicable.*
To whom might your data be useful ('data utility') outside your work package and outside the project? …	*Speculate and describe to whom your (research) output may be useful after publishing.*

FAIR data - General info		*Try to provide sufficient detail on how (research) output will be managed and shared or made available for reuse, in line with the FAIR principles. The European Commission aims to generate data as open as possible for greater impact for stakeholders and society.* *In case all collected data(sets) are sensitive/confidential/secret and should not be found, accessed, interoperable or reusable the questions related to FAIR data should not be answered, but please state your reasoning. However, if a part of the data(sets) can or should be accessible for a wider public, please complete the table. It will help you to describe your data(sets) and how you want to share them, which is very useful for the current and/or follow-up and/or future projects and research.*
FAIR data	**Making data findable, including provisions for metadata**	*The information needed to discover, use and understand data is referred to as metadata. Metadata provide enough information in order users know what can and cannot be done with your data (who, what, when, where, why, how of your data).*
	How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.	*Examples of metadata are description, ownership, date, etc. in e.g. readme.txt files.*

…

How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.	*Persistent Identifiers (PIDs) must be provided for the data, for all author(s) involved in the action and, if possible, for their organizations and the grant. Examples of commonly used PIDs include grant DOI for grants, ORCID or ResearcherID for authors, accession numbers, etc. Persistent Identifiers for data or other research output may be provided by trusted repositories where the research output is deposited. Describe folders and file conventions.*
…	
Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.	*For instance tagging items, i.e. datasets, documents, codes, etc., with relevant keywords that are automatically indexed by the search.*
…	
Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe.	*For instance how do you provide clear version numbers? Will only one version of each dataset be uploaded? Will a tool be used?*
…	

FAIR data	**Making data accessible**	*Follow the principle "as open as possible, as closed as necessary".*
	Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly.	*If certain datasets cannot be shared (or need to be shared under restricted access conditions), explain why, clearly separating legal and contractual reasons from intentional restrictions.* *Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if opening their data goes against their legitimate interests or other constraints as per the Grant Agreement.*
	…	

How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.	*Ideally, a dataset has a unique identifier, a license (under what conditions it can be used) and a citation (to refer to the right dataset, like with publications). Please list them here.* *Horizon Europe requires beneficiaries to deposit research data (including raw data, to the extent technically feasible) in a trusted repository as soon as possible (at the latest by the end of the project, or at the time of publication if the data underpin a scientific publication), or immediately in case of public emergencies.* *Such repositories help make data findable by assigning them a persistent identifier and by making rich dataset descriptions ('metadata') available online in a searchable resource. In Horizon Europe the following are considered trusted repositories: (1) certified repositories or disciplinary and domain repositories commonly used and endorsed by research communities, and recognized international, or (2) general-purpose repositories or institutional repositories that present the essential characteristics of trusted repositories (incl. assigning persistent identifiers and providing sufficient metadata to enable discovery, reuse and citation), see Annotated model grant agreement for more details. Personal websites and databases, publisher websites, cloud storage services (Dropbox, Google drive etc.), and platforms such as Academia.edu and ResearchGate are not considered repositories.*

…

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

…

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?

…

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

…

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

…

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.	
…	
If there are restrictions on use, how will access be provided to the data, both during and after the end of the project?	
…	
How will the identity of the person accessing the data be ascertained?	*For instance with a user registration process.*
…	
Is there a need for a data access committee? Indicate yes or no and describe.	*A data access committee reviews and authorizes requests for data access and use.*
…	
Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.	*Metadata of deposited data must be open under a Creative Common Public Domain Dedication (CC0) or equivalent (to the extent legitimate interests or constraints are safeguarded).*

	… Will metadata contain information to enable the user to access the data? Indicate yes or no and describe. … How long will the data remain available and findable? Will metadata be guaranteed to remain available after data is no longer available? … Will documentation or reference about any software needed to access or read the data be included? Will it be possible to include relevant software (e.g. in open source code)? …	
FAIR data	**Making data interoperable**	*Is data exchange and reuse between researchers, institutions, organizations, countries, etc. possible, i.e. adhering to standards for formats, as much as possible compliant with available open software applications, and in particular facilitating recombination with different datasets from different origins?*

	What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and reuse within and across disciplines? Will you follow community-endorsed interoperability best practices? Which ones? …	*For instance, metadata format can be compliant with standard formats.*
	In case it is unavoidable that you use uncommon or generate project-specific ontologies or vocabularies: Will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them? …	
	Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe. …	*A qualified reference is a cross-reference that explains its intent. For example, X is regulator of Y is a much more qualified reference than X is associated with Y, or X see also Y. The goal therefore is to create as many meaningful links as possible between (meta)data resources to enrich the contextual knowledge about the data.*
FAIR data	**Increase data reuse**	

When will the data be made available for reuse? How long is it intended that the data remains reusable?	*For instance, after upload and at least 15 years or for the lifetime of the repository.*
…	
How will you provide documentation needed to validate data analysis and facilitate data reuse?	*The data package deposited in the trusted repository could include for instance readme files with information on methodology, codebooks, data cleaning, analyses, variable definitions, units of measurement, etc.*
…	
Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?	*Research data should be made open access by default and licensed under the latest version of Creative Commons 0 or Creative Commons BY or equivalent. However, it is recognized that data should be 'as open as possible, as closed as necessary', and exceptions can be made when providing open access to data: (1) Is against the beneficiary's legitimate interests, including regarding commercial exploitation; (2) Is contrary to any other constraints, such as data protection rules, privacy, confidentiality, trade secrets, Union competitive interests, security rules, intellectual property rights or; (3) Would be against other obligations under the Grant Agreement.* *In such cases, data can be kept restricted, closed or under embargo, but please explain the legitimate*

exception(s) under which you choose to restrict access to (some of the) (research) data. If you generate other forms of research output, consider to what extent and how they will be made openly available.

…

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

…

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

…

Describe all relevant data quality assurance processes.

…

Other research output	*In addition to the management of data also other (research) outputs that may be generated or reused throughout the project should be considered. These research outputs may be physical or digital, and include software, models, algorithms, workflows, protocols, simulations, electronic notebooks, new materials such as samples, cell-lines, antibodies, among many others.* *In Horizon Europe, open access to publications and to research data ('as open as possible, as closed as necessary') is a requirement. Besides, beneficiaries are encouraged to manage, in line with the FAIR principles, and give (open) access to research outputs other than publications and data. Such outputs are sometimes shared via data repositories as accompanying documentation alongside datasets, and at other times shared in their own right, for example via general-purpose repositories, code repositories (e.g. GitHub, GitLab), protocol/experimental workflow repositories (e.g. Protocols.io). In addition, also consider access to any 'physical' outputs generated, such as new materials, compounds, reagents, (biological) samples etc. via infrastructures for non-digital research materials (e.g. biobanks, repositories for biological materials).*

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project? …	

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?	*Consider direct and indirect costs related to storage, archiving, re-use, security, journal open access costs, etc.*
…	
How will these be covered?	*Note that costs related to research data/output management are eligible during the lifetime of the project as part of the Horizon Europe grant (if compliant with the Grant Agreement conditions).*
…	
Who will be responsible for data management in your work package?	*For instance, the data access committee.*
…	

	How will long-term preservation be ensured?	*Discuss the necessary resources to accomplish this: costs and potential value, who decides and how, what data will be kept and for how long.*
	…	
Data security		
	What provisions are or will be in place for data security?	*Include data recovery as well as secure storage/archiving and transfer of sensitive data. For instance data stored in the partners' networks with back-ups, firewall, or on the project's Teams.*
	…	
	Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.	
	…	
Ethics		
	Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe.	*For instance, data from 3rd parties that did not give explicit consent, data that need to comply the GDPR, etc. Examples of ethical issues are privacy and surveillance, data ownership or the right to access data, fair distribution of benefits of digitization of*

		farming, responsibility for decisions and its consequences, etc.
	…	
	Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain. …	*Does your data need to have an MTA (material transfer agreement) or does it fall under the Nagoya protocol? Do not forget to check them, and refer to them in this document (where are they stored?)*
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them. …	

3.2 Data Collection Pilots

Various datasets will be collected at the 6 pilots (Table 2) consisting of a wide range of data types and from numerous sources.

Table 2: List of 6 pilots of the aWISH project.

Pilot 1	Pigs	Gelderland - The Netherlands and extensions to the rest of the Netherlands, and Germany
Pilot 2	Pigs	Catalonia - Spain and extensions to the rest of Spain
Pilot 3	Broiler	Yonne - France and extensions to France, the Netherlands, Germany, Belgium, Poland, and Bulgaria
Pilot 4	Broiler	Poland and extensions to France, the Netherlands, Germany, Belgium, and Poland
Pilot 5	Pigs - 2nd phase	Upper Austria - Austria and extensions to the rest of Austria
Pilot 6	Pigs - 2nd phase	Vojvodina – Serbia and extensions to the rest of Serbia

WP 3 monitors and evaluates the execution and progress of the 6 pilots and identifies the various datasets. The list is shown in Annex 4.2. Additional datasets might be identified during the project and added to the list.
Following information is collected:

- Dataset general information: dataset ID, demo case-related ID, data asset title, description, date of last update
- Data asset features: volume, variety, type, format, velocity, historical data availability, temporal coverage, spatial coverage, language, relevant standards, veracity, temporal resolution, spatial resolution, dependency/linking to other sources
- Data asset availability: data asset owner, data asset available from 3rd party, data asset provider, accessibility method, frequency of updates, update strategy, documentation
- Data asset rights: relevance to other aWISH demonstrators/demo cases, privacy, license, data asset consumer(s) sharing
- Data analysis: types of analysis currently conducted on data, type of visualization needed
- Availability in aWISH platform: status, asset details in the platform, roadmap

3.3 Privacy policy, consent forms and NDA

Privacy policy

A privacy policy is made by the aWISH communication team (WP 1) and applies to all personal data collected as part of the dissemination and co-innovation activities with the HE aWISH project. The user has to read this privacy policy, available on the aWISH website (www.awish-project.eu), and decide if he/she is willing to provide personal data to the aWISH project. The user guarantees that he/she is of legal age and that data are true, accurate, complete and current. If the data belong to a third party, the user guarantees that he/she informed this third party about the conditions provided in the document and that he/she was authorized to provide data to the aWISH project of the indicated purpose.
The privacy policy is added in Annex 4.3.

Consent form

A **general consent form** is made by WP 1 to ensure that proper consent for publication is obtained in the aWISH project and to inform individuals of the legal consent given to publish personal information taken during activities. Consent forms will be stored by EV ILVO. By signing the form they consent to the processing of personal data

(1) exclusively for dissemination activities under the terms of the aWISH privacy policy as shown on the website and in accordance with the principles laid out by GDPR, and
(2) solely for the purposes of the aWISH activities such as enquiries, surveys, and other research, and for its communication on newsletters, news, technical articles, event information, or other activities, in accordance with the aWISH privacy policy.

Another **consent form** is developed by WP 5 for the **expert panels** and will be stored by EV ILVO. The expert panels will need to retrieve and share feedback on technology, processes, farming practices, industry, sector regulation and markets as well as society and perceptions. Some personal data will be processed of the member, i.e. contact, professional, and demographic information and personal opinion. All information will be handled confidential and will only be shared with other aWISH partners involved in the data analysis and reporting process. According to GDPR, members have the right to request to provide them with a copy of their data, to correct their data, to erase their data, to restrict or stop processing their data and to provide their data in an appropriate format and transfer them to another organization. At any time the participation can be withdrawn. Anonymous data already collected will still be used.

Non-disclosure agreement

Members of the Stakeholder Advisory Board signed an non-disclosure agreement (NDA), prepared by the project coordinator, EV ILVO, as shown in Annex 4.3. The general principles concerning the disclosure of confidential information by the disclosing party to the receiving party in connection to the potential transactions are defined in the NDA. The purpose of the NDA is to clarify the arrangements for the release of confidential information by the disclosing party to the receiving party.

3.4 Ethical committee approval

Any animal experiment and human involvement in the aWISH project will be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles. Deliverable 6.5 "Ethics Rating Plan" describes the three main ethical challenges: (1) animal handling, (2) involvement of humans and (3) the use of AI.

(1) The project coordinator, EV ILVO, will monitor that the correct procedures are followed to ensure that any pigs and broilers that will be used in aWISH are exposed to a minimum of additional stress and discomfort. Plans for animal experiments should be reviewed and approved by the ethics committee at partner or national institutions (depending on national legislation) and should be in accordance with EU Directive 2010/63/EU on the Protection of Animals Used for Scientific Purposes.
All partners indicated whether or not of animal handling is involved and stated they would abide by the prescribed EU and national legislation and submit applications to the ethical committee if necessary. All information on animal handling and experiments will be added to D6.5 when available.

(2) Persons, other than the project partners, will be involved in the project in various activities. Regulation, guidelines and codes of conduct for data protection and ownership need to be followed. Procedures are set in place to identify participants and for informed consent, while respecting GDPR in accordance with EU Directive 2016/679/EU.

(3) The used AI algorithms in the aWISH project need to be evaluated regarding ethical concerns for the humans involved.

4. Annexes

4.1 Data Management Plan Work Packages

WP 1

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	1
WP lead	CONSULAI (Dina Lopes)
WP co-lead	BIOSENSE (Sladjana Blazevic)
Main contact person DMP	Dina Lopes
Date	19/04/2023
Data summary	At this moment, on the project website, we'll have text, image and video data most of which will be in HTML. We also implemented a survey for the website visitors to understand their origin and that data is currently in tabular format and will be exported in .CSV format when needed. Other than that, we are currently discussing the possible ways of implementing Experts Panel feature which will allow experts from few different spheres of interest to display themselves on the website. That data will be saved in JSON format.
What type of formats of data and other (research) outputs will the work package generate or re-use?	Still to be defined
Will you reuse any existing data and what will you reuse it for?	

We might buy and use visuals such as videos and images in future to better describe project mission and goals and make a stronger connection with our targeted audience.

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?

In terms of project website, collected survey data will be used for better understanding the origin of our visitors as well as helping them connect with related field experts via our Experts Panel functionality.

What is the expected size of the data that you intend to generate or reuse?

In terms of project website, not more than 2GB I believe, but let's say 5GB in this phase just to leave some space.

What is the origin/provenance of the data, either generated or reused?

Most of the project website data will be newly generated and the ones that we are going to buy for enhancing the user experience (images, videos) will be from valid sellers such as Shutterstock.

To whom might your data be useful ('data utility') outside your work package and outside the project?

This data can be useful to business operators in the meat sector (farmers, catchers, transporters, slaughterhouses), suppliers and service providers to
meat sector (technology providers, vets, advisors, etc.), clients of meat sector (food sector, retail, consumer
org.)

FAIR data	Making data findable, including provisions for metadata

Publications and proceedings will be made open access, researchers will also use them on their personal repositories.

How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

Project website will have metadata for images and posts. Images would have title and description as metadata, post metadata would include author information, publish date, last updated date and category.

How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.

Visuals and posts presented on the website each have their own unique title which is in most cases used as their ID.

Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.

Title and description metadata is used for that purpose so there is no need for extra keywords.

Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe.

Website's metadata will only be used better indexing by search engines but not for external users.

Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly.

Access to participant information and data derived from that information, will only be accessible to those people or groups whom have been given authorization from the provider of this data.

How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.

All documents will be identified with a DOI or other identifier, stored on the website and uploaded in open repositories.

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

Not yet.

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?

…

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

…

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

…

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

Yes.

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

…

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

Still to be defined.

Is there a need for a data access committee? Indicate yes or no and describe.

No.

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

Not applicable.

Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

…

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

Still to be defined.

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

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

…

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

Still to be defined.

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.

Still to be defined.

FAIR data	Increase data reuse

When will the data be made available for reuse? How long is it intended that the data remains reusable?

Still to be defined.

How will you provide documentation needed to validate data analysis and facilitate data reuse?

…

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

Still to be defined.

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

Yes. Data collected or co-owned by aWISH partners can be made available min. 1 year after data collection. Researchers can decide to make data earlier available, if that is not in conflict with the consortium agreement (CA).

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

Yes.

Describe all relevant data quality assurance processes.

For the experts panel functionality, we have people that are responsible for approving new members by validating their registration applications.

Other research output

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?

No.

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

Still to be defined.

How will these be covered?

Who will be responsible for data management in your work package?

CONSULAI (Dina Lopes)

How will long-term preservation be ensured?

Still to be defined

Data security

What provisions are or will be in place for data security?

Project website data is backed up every day

Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.

Yes.

Ethics

Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe.

GDPR.

Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain.

Yes.

Other issues

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

WP 2

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	2
WP lead	UCPH
WP co-lead	UAB
Main contact person DMP	Björn Forkman
Date	20/04/2023

Data summary

What type of formats of data and other (research) outputs will the work package generate or re-use?

Several kinds of data will be used, primarily literature for T2.1 and T2.4, interviews and focus groups for T2.2 and T2.3

Will you reuse any existing data and what will you reuse it for?

Yes, used for establishing the welfare catalogue.

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?
Establishing the welfare catalogue, construct the algorithms for T2.3

What is the expected size of the data that you intend to generate or reuse?

What is the origin/provenance of the data, either generated or reused?

Data from interviews, focus groups, workshops

To whom might your data be useful ('data utility') outside your work package and outside the project?

Algorithms produced as well as the basis for the algorithms will be of interest to industry as well as researchers

FAIR data - General info

FAIR data

Making data findable, including provisions for metadata

How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

To be decided

How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.

Orcid for the publications, to be decided for the raw data

Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.

Yes

Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe.

Making data accessible

Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly.

Yes, but only within the constraints of GDPR

How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.

To be decided

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

No, to be decided

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?

…

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

No

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

No

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

To be decided

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

No

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

To be decided

Is there a need for a data access committee? Indicate yes or no and describe.

No

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

Yes

Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

To be decided

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

To be decided

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

Algorithms from T2.3 will be provided

FAIR data	Making data interoperable
	What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and reuse within and across disciplines? Will you

follow community-endorsed interoperability best practices? Which ones?

To be decided

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

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.
Yes

FAIR data	Increase data reuse

When will the data be made available for reuse? How long is it intended that the data remains reusable?

To be decided

How will you provide documentation needed to validate data analysis and facilitate data reuse?

To be decided

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?
Yes, within the limitations of GDPR

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

To some extent, result from focus groups, interviews etc are however context specific

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

Yes

Describe all relevant data quality assurance processes.

To be decided

Other research output

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?
No

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

To be decided

How will these be covered?

To be decided

Who will be responsible for data management in your work package?

To be decided

How will long-term preservation be ensured?

	What provisions are or will be in place for data security? To be decided Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe. To be decided
Ethics	
	Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe. Yes, primarily GDPR Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain. Yes
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them. No

WP 3

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	WP3
WP lead	BIOSENSE
WP co-lead	Pilot leaders
Main contact person DMP	Slađana Blažević
Date	20/04/2023

Data summary

What type of formats of data and other (research) outputs will the work package generate or re-use?

We will reuse data generated in WP2 (methodology and algorithms for selection and aggregation of AWI as well as the animal welfare catalogue) and outputs from WP4 (central data platform and feedback loop). Detailed information on these data will be provided by WP2 and 4 leaders.

Will you reuse any existing data and what will you reuse it for?

As already described above, we will reuse data generated in WP2 and 4. We will also gather knowledge on the assigned tasks and related topics by reading and processing previously published scientific articles and datasets. For some of the measured traits historical data may be present for usage.
Pilot 2 will reuse data about carcass grading classification (based on Autofom III equipment) to complement AWI collected by the new sensors (stunning, tear staining and lung and liver sensors).

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?

The following deliverables are declared in the Grant Agreement for WP3:
- Pilot sites implementation plan and standardized data collection protocols
- Periodic evaluation of pilots, common challenges analysis, technology reusability exploitation and learning take-aways
- Final results, lessons learned and recommendations from pilots multi-actor groups

Generated data is directly linked to the deliverables mentioned above and will subsequently be communicated for the overall purposes of the project.
- Pilot 1: Together with the university of Utrecht 12 to 15 farmers will be monitored with on-farm sensors information, for these farmers it might be interesting to have historical data.
- Pilot 2: To improve the effectiveness of the new sensors considering relevant individual data related to the fattening phase.

What is the expected size of the data that you intend to generate or reuse?

assessed and the duration of data collection have been defined.
Size of reused data cannot be estimated as there are no outputs of WP2 available at this point in time. Some data will be batch wise (i.e. lairage sound measurements) and some on individual carcass base (tail length, health data, backfat and muscle depth measurements). Some will be single measurements and some extensive data sets (the raw AutoFOM measurements will be very large)

Taken from the GA:
WP3 will generate a large amount of data from the 6 pilots (images, numerical) both observational and experimental, and both newly generated during aWISH (novel camera systems, novel AWIs, installed sensors and systems, farm data, etc.) as from existing data sources (farm data, slaughterhouse data, national repositories, etc.). We estimate 5-8TB of processed/annotated data need to be kept centrally.
In Pilot 2 - Digital data:
Existing data: 0,003 Gb per day
Stunning sensor: 0,001 Gb per day (if image collection: 1Gb per day)
Tear staining sensor: 0,001 Gb per day (if image collection: 2Gb per day)
Lung and liver sensor: 0,001 Gb per day (if image collection: 4Gb per day)

What is the origin/provenance of the data, either generated or reused?

Observational data are generated at the slaughterhouse and further processed by technology partners and Vetmed. All other data will either be created by Vetmed or other project partners (specifically WP2 and 4).

	In Pilot 2 existing data: comes from the weighing system and the carcass grading equipment (Autofom III, Frontmatec) New data: from the newly developped sensors. To whom might your data be useful ('data utility') outside your work package and outside the project? Data we collect within WP3 will flow back to WP2/4 and 5. Outside the project, the results delivered by WP3 will be helpful not only for all parties along the production chain, but also for technology providers, researchers, and stakeholders as well as all parties involved in the feedback loop. The new sensors can provide new phenotypes related with AW. The new phenotypes can provide valuable data in scientific trials developped to analyze factors that can affect AWI.
FAIR data - General info	All our collected datasets will be confidential for external stakeholders of the project. Data will be usable for the scientific teams of the project in order to achieve the project goals. But the data should remain confidential for external use .
FAIR data	**Making data findable, including provisions for metadata** How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how. (Adapted from the GA:) Detailed metadata will be stored along with the data itself. Procedures and methods are part of the metadata and will be stored in a separate file with the data or in the metadata. Details of datasets, data ownership and restrictions and data contacts will be specified in the next version of the Data Management Plan (DMP). To be determined

How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.
To be determined.

Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.
To be determined.

Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe.

To be determined.

FAIR data	Making data accessible
	Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly.

(Taken from the GA:)
Documents and multimedia will mainly be open, apart from deliverables noted as confidential. Datasets will be made open if possible (see Grant Agreement 1.2.6). Code and algorithms that are part of the (commercial) exploitation plans of the companies will be protected (those of the technical developments, e.g. image processing algorithms to detect and classify skin lesions in pigs or stunning effectiveness in broilers), but

index) will be published at the time of publication of the methodology and results (so linked to a scientific
publication), as well as the training and validation dataset they are based upon. All agreements on IPR protection will be made in the CA and adapted during the project where needed.

At least a report of the analysis of the data should be made openly available. Individual data most likely not.

Each dataset will be open to the partners involved in the task (equipment provider, scientific leader, other pilots, etc) but will be closed to other partners

How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.

(Taken from the GA:)
All documents will be identified with a DOI or other identifier, stored on the website and uploaded in open repositories (e.g. CORDIS). Publications/proceedings will be made open access, researchers will also use them on their personal repositories (e.g. ResearchGate, institute sites).
Researchers will use their ORCID IDs. Datasets and databases similarly, under the restrictions at hand (see 1.2.6), on trustworthy digital repositories (e.g. Zenodo, European Open Science Research Cloud), with their metadata and

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

To be determined.

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?
To be determined.

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

To be determined.
At this point we can say that when we can be involved in content of publication no embargo will be necessary.

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

To be determined.
If necessary 2 year will be nice lead time.

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

To be determined.

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

To be determined.
Pilot 2 believes that data access will be restricted and stopped after the end of the project.

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

Is there a need for a data access committee? Indicate yes or no and describe.

To be determined.

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

(Adapted from the GA:)
Metadata of deposited data will be open under a Creative Common Public Domain.
Dedication (CC 0) or equivalent (to the extent legitimate interests or constraints are safeguarded), in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: datasets (description, date of deposit, author(s), venue and embargo);

Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the dataset, the authors involved in the action, and, if possible, for their organisations and the grant. Where applicable, the metadata will include persistent identifiers for related publications and other research outputs.
Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

To be determined.

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

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

FAIR data	Making data interoperable (Taken from the GA:) Documents will be stored in pdf, video's in mp4, software and code in the software language they were written in, but with explanatory reports (e.g. Jupyter notebooks). Data will be stored in open, program independent formats (like .csv, .txt, .png). The data platform will utilize a common semantic data model based on, but also in the meantime extending, the current available standards (ICAR, Animal Trait Ontology for Livestock, Semantic Sensor Network, AGROVOC, OGC working groups). Data collection will be based upon a standard template design that aligns all processes and reduces computing power and work to convert different datasets (e.g. from the different pilots) to the same format. This standard template will use a common ontology and define naming and format conventions, as well as needed metadata.

What data and metadata vocabularies, standards, formats or methodologies will you follow to make your data interoperable to allow data exchange and reuse within and across disciplines? Will you follow community-endorsed interoperability best practices? Which ones?
This (+ most of the questions above that are answered with "To Be Defined") is again something that should be described uniformly across pilots and for all project partners involved in data collection.

In case it is unavoidable that you use uncommon or generate project-specific ontologies or vocabularies: Will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them?
Some say Yes, others do not have any information on this topic.

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.

Yes, qualified references to other data and previous research will be indicated whenever a relevant link is identified.

FAIR data	Increase data reuse

When will the data be made available for reuse? How long is it intended that the data remains reusable?

To be determined.
Preferably, data will be available during the project lifetime. After the end of the project, data will not be accessed.

How will you provide documentation needed to validate data analysis and facilitate data reuse?

To be determined.
Pilot 2 will provide the documentation under petition of the coordinator or the scientific leader of the WP.

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

…

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

…

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

(Adapted from the GA:)
Relevant research outputs and data (i.e. the datasets, software, algorithms) will be made open access where possible. Care will be taken that confidential and proprietary data collected in the project will not be openly available when published, unless it can be anonymized, not to block commercial exploitation by partners and to be in line with legal requirements. Any algorithms or developments based on code/knowledge under open licenses will be published again adhering to these licenses.

All data generated by the project will be as FAIR (see
1.2.7) and open as possible. External data where partners have/get access to, is subject to the contract with the owner (contracts will be collected by the coordinator) and the contract needs to specify the terms under which data can (or cannot) be published. Each partner that handles data in aWISH needs to appoint a responsible for the data and data sharing (e.g. leading senior researcher), who will also be the data contact during and after the project. Data collected or co-owned by aWISH partners, can be made available min. 1 year after data collection. Researchers can decide to make data earlier available, if that is not in conflict with the consortium agreement (CA). Data that has been made available, will be as much as possible the raw data, except when data is subject to GDPR, ethics or other legal objections. Then ggregated,

Describe all relevant data quality assurance processes.

Data quality will be checked regularly according to (at least) the following criteria: accuracy (completeness, measurement error, level of bias, degree of problems with consistency), internal (internal consistency, stability across time, linkability) and external (identifying units of analysis; level of agreement with the literature and available reports) validity, reliability (level of agreement with other databases), timeliness (time to acquisition, time to release, currency of data) and interpretability (documents, policies and procedures, formats libraries, metadata, data model diagrams).

Other research output

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?

No

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

Vetmed as a research partner receives a dissemination fee of €3500. This includes an open access publication fee (and a conference/event subscription fee). All other costs (& how much budget there is to spend on WP3) regarding FAIR data access probably need to be defined.

How will these be covered?

To Be Defined.

Who will be responsible for data management in your work package?

To Be Defined.
In Pilot 2 Manager of the project at Selección Batallé and the data protection manager of Selección Batallé.

How will long-term preservation be ensured?

To Be Defined.

Data security

What provisions are or will be in place for data security?

To Be Defined.
In Pilot 2 - All provisions actually actives on our working network. Includes firewall and backup copies.

Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.

Yes.

The data storage process should be the same for all WP3-partners and probably for the whole project.

Ethics

Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe.

Data ownership, data anonymization (farm data) and data (e.g., algorithms) sharing by technology providers are topics that will be given special emphasis and described further in the next version of the DMP.

Data owned by farmers should be legally arranged for usage.

Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain.

	Informed consent will be collected whenever non-anonymized personal data is processed for project purposes. The setting up of a Data Transfer Agreement between all partners within each pilot needs to be considered.
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them. To Be Defined. Pilot 2 - no

WP 4

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	4
WP lead	UU (Bas Rodenburg - Mona Giersberg)
WP co-lead	Ubitech (Kostas Perakis)
Main contact person DMP	Ubitecht (Kostas Perakis)
Date	21/04/2023

Data summary

What type of formats of data and other (research) outputs will the work package generate or re-use?

The work package will re-use the data generated by the pilots in WP3. This will be a combination of routinely collected data throughout the production chain and sensor data from the technologies incorporated at the pilot sites. Within task 4.1, the aWISH data platform will also generate new data based on the inputs from WP3. This will mainly be summary data, which cannot be linked back to individual farms or operators. For task 4.2, new data will be generated for the intervention studies. The type of data will be the same as for task 4.1, but data from contrasting situations will be collected (before/after improvements; standard versus enhanced conditions etcetera). For task 4.3, the work package will also re-use pre-existing national data on broiler and/or pig welfare.

For task 4.4, output will mainly consist of best practice guides. Data will include sensor readings, measurements at slaughter, welfare assessments, reports from national authorities, reports from slaughterhouses, farmer data. Specific data types and volumes are yet to be established.

Will you reuse any existing data and what will you reuse it for?

Yes, as mentioned above, WP4 will re-use data from the pilots, collected within WP3. Also, for task 4.3, we will re-use data from national databases on welfare data collected around slaughter.

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?

See above

What is the expected size of the data that you intend to generate or reuse?

To be established

What is the origin/provenance of the data, either generated or reused?

Reused data: WP3 data. For task 4.3, data will be re-used provided by the NVWA (Dutch Food Safety Authority). Generated data: aWISH pilots.

To whom might your data be useful ('data utility') outside your work package and outside the project?

Livestock industry, academia (life sciences), policymakers, competent authorities

FAIR data - General info

FAIR data	Making data findable, including provisions for metadata
	How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how. To be established
	How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe. To be established
	Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe. To be established
	Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe. To be established
FAIR data	**Making data accessible**
	Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly. To be established
	How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.

To be established

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

/

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?

To be established

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

To be established

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

To be established

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

To be established

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

To be established

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

Is there a need for a data access committee? Indicate yes or no and describe.

To be established

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

To be established

Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

To be established

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

To be established

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

To be established

FAIR data	Making data interoperable

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

To be established

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

To be established

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.

To be established

FAIR data	Increase data reuse

When will the data be made available for reuse? How long is it intended that the data remains reusable?

To be established

How will you provide documentation needed to validate data analysis and facilitate data reuse?

To be established

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

To be established

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

To be established

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

To be established

Describe all relevant data quality assurance processes.

Other research output

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?

/

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

To be established

How will these be covered?

To be established

Who will be responsible for data management in your work package?

To be established

How will long-term preservation be ensured?

To be established

Data security

What provisions are or will be in place for data security?

To be established

Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.

	To be established
Ethics	
	Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe.
	To be established
	Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain.
	To be established
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them.
	…

WP 5

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	5
WP lead	Thuenen
WP co-lead	White Research
Main contact person	Petra Thobe
DMP Date	04.04.2023

Data summary

What type of formats of data and other (research) outputs will the work package generate or re-use?

Reused research output:
From practice partners generated data (slaughtering and transport), protocols, models
Generated output:
Collected anonymized data along the value chain, economic and environmental data
Data types:
Qualitative and quantitative data from focus groups and surveys, quantitative data from sensor readings (aggregated), sensory observations and qualitative measurements, derived variables
Data formats: xlsx, txt, csv

Data collected through **desk research**:
Type: research papers
Format: .docx, .ppt, .pdf, .xlsx

Data collected through **stakeholder interviews**
Type: Notes
Format: .docx, .ppt, .pdf, .xlsx

Data collected through **online survey**
Type: Answers captured from a web-based survey platform
Format: .csv, .xlsx

Data collected during **Expert Panels workshops**
Type: Notes, videos
Format: .8docx, .ppt, .pdf, .xlsx, .mp4, .mov, .jpg, .tiff

Will you reuse any existing data and what will you reuse it for?

Yes, the result of the tasks where WR is responsible will feed WP2 and WP4.

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?

The data will be used for the development of models for the environmental impact assessment foreseen in the GA. The data will also be used for protocols and deliverables as foreseen in GA.

What is the expected size of the data that you intend to generate or reuse?

We expect 20 GB data volume for the work package.
1000 photos (á 5 MB) = 5 GB
10 expert interviews = 3 GB
Simulation model = 12 GB

Data collected through desk research:
Size: ~ 0.04 GB
Data collected through stakeholder interviews:
Size: ~ 0.3 GB
Data collected through online survey:
Size: ~ 0.1 GB
Data collected during training workshops and webinars:
Size: up to 50MB for each doc, 1 MB for each .xlsx, 250 MB per video file

What is the origin/provenance of the data, either generated or reused?

The data used in this work package are made available by the project partners in order to calculate various scenarios in a simulation model.

Already existing technical documentation, publications. Personal opinions.

To whom might your data be useful ('data utility') outside your work package and outside the project?

The data could be useful to policy makers, actors of the broiler and pig value chain, scientists. The data can be used to assess the economic and ecological consequences in the preliminary stages of political measures that affect actors along the entire value chain to derive political measures on the basis of a sound database . For actors along the value chain a transparent database will be useful to improve the management and a sustainable production.

Stakeholders across the value chain, Government & Policy makers, Researchers, NGOs, Industry representatives, etc.

FAIR data - General info

FAIR data

Making data findable, including provisions for metadata

How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.

The metadata meet the requirements for citability of the respective datasets (title, description, data collection time, dataset name, categories, dataset

DataCite Metadata Schema). Additional descriptive metadata is also recorded in a structured document and stored in an open format. The supplementary metadata is stored as part of the respective dataset and published if necessary. For geographical data (longitude and latitude), the underlying reference system is specified. Work package creates reference documentation for all metadata, except for metadata standards, and uses variable names and entities consistently and globally for all project data.

How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.

Data sets that are published are made uniquely referenceable with a persistent identifier (e.g. DOI).
The rules for naming files and folders, as well as a folder directory, are specified by the WP and Task Leaders before the start of data collection.

Data collected through desk research:
No identification.

Data collected through stakeholder interviews
No identification.

Data collected through online survey
No identification.

Data collected during Expert Panels workshops
No identification.

Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.

If possible, the keywords are given as part of the metadata. However, this depends on the

	Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe. The work package will prefer a repository that has an interface (e.g. OAI-PMH) for harvesting the metadata. Data collected through desk research: No Data collected through stakeholder interviews: No Data collected through online survey: No Data collected through expert panels workshops: No
FAIR data	**Making data accessible** Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly. The work package will publish the research data unless there are legal, contractual or ethical reasons against it. A license that is as open as possible is chosen for the publication of the research data. The data from the expert interviews cannot be published because they cannot be made anonymous. The results of the interviews will be published in a scientific publication. Raw data (captured answers) will not become available. Analysed/aggregated data will be reported to a public deliverable. Data will be anonymised. Personal information data will be aggregated/anonymised before being reported to a public deliverable. How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant. Whenever possible, research data will be published in a certified repository. The repository will be selected no later than six months before

data subjects cannot be identified in any reports, publications and/or datasets resulting from the project. The project partner serving as the data controller in each case will undertake all the necessary anonymisation procedures to anonymise the data in such a way that the data subject is no longer identifiable.

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

Not yet. The repository will be selected no later than six months before the end of the project.

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?

The repository will be selected no later than six months before the end of the project.

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

We will decide this point once the project staff is hired. For example, if a PhD students are part of the project staff, they will be granted an embargo to fully complete the PhD process.

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.

Please see above.

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

The research data will be published in a repository when possible. The metadata can be called up or viewed via the Internet or downloaded via the interfaces offered by the repository. The question can only be answered

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

The expert interviews are subject to data protection and are only accessible to the project staff who collect the data. The results will then be published in the form of an open access scientific publication.

WR will provide access to the data regarding the specific task, as function of the involvement of the partner in the task.

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

Providing a link to the information in the internal project repository.

Is there a need for a data access committee? Indicate yes or no and describe.

Usually, project leaders or heads of institutes decide whether someone gets access to the research data.

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

Yes

Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

The contact options for inquiries about the use of data are given. The contact options are part of the metadata.

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

In accordance with good scientific practice, the

How long published datasets can be found depends on the repository and can only be answered after it has been selected.

Will documentation or reference about any software needed to access or read the data be included? Will it be possible to include relevant software (e.g. in open source code)?
This work package won't use special software. The data can be used without a special software.

FAIR data

Making data interoperable

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

The work package will observe the specifications of the subject-specific consortia BERD@NFDI and KonsortSWD of the National Research Data Infrastructure (https://www.nfdi.de/konsortien/) for research data management.

In case it is unavoidable that you use uncommon or generate project-specific ontologies or vocabularies: Will you provide mappings to more commonly used ontologies? Will you openly publish the generated ontologies or vocabularies to allow reusing, refining or extending them?
The work package will answer this question at a later point in time, since it is not certain at this point in time whether a corresponding ontology will be created.

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.
The work package will answer this question at a later point in time, since the data from the other work packages has not yet been generated and so

When will the data be made available for reuse? How long is it intended that the data remains reusable?

As described above, the research data will only be made accessible if there are no ethical, legal or contractual reasons against it. Since the research data contains personal data, the question of reusability still has to be clarified.

How will you provide documentation needed to validate data analysis and facilitate data reuse?

Documentation will be created and made available upon request unless there are legal or contractual reasons to the contrary.

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

The work package will publish the research data unless there are legal, contractual or ethical reasons against it. A license that is as open as possible is chosen for the publication of the research data. The data from the expert interviews cannot be published because they cannot be made anonymous. The results of the interviews will be published in a scientific publication.

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

The data could be useful to policy makers, actors of the broiler and pig value chain, scientists.
See above.

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

The work package will document the provenance of the research data and the other outputs by using appropriate metadata schemas (e.g. Dublin Core, DataCite Metadata Schema) in the metadata.

Describe all relevant data quality assurance processes.

Multiple – control of the results internally and externally.

Other research output

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?
No

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

/

How will these be covered?

/

Who will be responsible for data management in your work package?

The data steward if the work package/individual Task is responsible for the data management.

How will long-term preservation be ensured?

The Thünen Institute will provide a possibility for

What provisions are or will be in place for data security?

The research data of the work package are stored in the IT infrastructure of the Thünen Institute. The data is stored on servers that have a back-up routine. Sensitive data is only made accessible to authorized persons through an access and rights management system.

Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.

Please look under FAIR data.

Ethics	
	Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe. Yes, the work package will handle sensitive data. Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain. Yes, the informed consent is part of the questionnaires used and is formulated together with the data protection officer and the legal department of the Thünen Institute.
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them. No.

WP 6

Project	Animal Welfare Indicators at the Slaughterhouse
Acronym	aWISH
GA number	101060818
DMP version	V1.0
Work Package (WP)	6
WP lead	EV ILVO
WP co-lead	/
Main contact person DMP	Anneleen Watteyn and Anneleen De Visscher
Date	20/04/2023

Data summary

What type of formats of data and other (research) outputs will the work package generate or re-use?

Developed within WP 6:
- Project Management Handbook
- Data Management Plan
- Ethics Rating Plan
- General aWISH project presentation and other presentations, webinar recordings...

Collected by WP 6:
- Ethical committee forms of the pilots
- Consent forms of the pilots and partners

Used by WP 6 and other WPs:
- Consortium Teams platform

All data are doc and pdf files and video and image data, including templates, deliverable reports, agendas, minutes, webinar recordings etc.

Will you reuse any existing data and what will you reuse it for?

No

What is the purpose of the data generation or reuse and its relation to the objectives of the project/work package?

The data collection is related to the main task of WP 6, project management and coordination and linked to the deliverables.
According to the GA the following deliverables will be made by WP 6:

- D6.1 Project Management Handbook (submitted)
- D6.2 Data Management Plan version 1
- D6.3 Data Management Plan version 2
- D6.4 Data Management Plan version 3
- D6.5 Ethics Rating Plan (submitted)

What is the expected size of the data that you intend to generate or reuse?

Approximately 25 Mb (Deliverables and other forms). No significant storage requirements.

What is the origin/provenance of the data, either generated or reused?

/

To whom might your data be useful ('data utility') outside your work package and outside the project?

- New (research) projects (Deliverables), e.g. as advice for better project management and implementation. Also expertise, knowledge and workflows can serve as a basis for new reports and coordination work.
- Stakeholders (General aWISH presentation).

FAIR data - General info

How are the data produced and/or used in your work package discoverable with metadata? What metadata will be created? What disciplinary or general standards will be followed? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.
The non-confidential data will be downloadable on the aWISH website.
How are the data produced and/or used in the WP identifiable? Refer to standard identification mechanisms. Will data and other (research) outputs be identified by a persistent identifier? What naming conventions will be followed? Please describe.
Unique and persistent identifiers will not be used.

Will (research) keywords be provided in the metadata to optimize the possibility for discovery and then potential reuse? Indicate yes or no and describe.
Not applicable

Will metadata be offered in such a way that it can be harvested and indexed? Indicate yes or no and describe.

Final versions of the deliverables will be uploaded on the EC participant portal and the consortium Teams. Work versions of all WP 6 reports will be stored on the aWISH Teams of EV ILVO.

FAIR data	Making data accessible

Will all data and other (research) outputs be made openly available? Indicate yes or no and give the reason why certain datasets cannot be shared openly.
The Project Management Handbook and Data Management Plans are public deliverables and will be made available on the aWISH website.

How will the data be made accessible? Will data and other (research) outputs be deposited in a trusted repository? Indicate yes or no and describe or explain why. Please provide the link or Digital Object Identifier (DOI) if relevant.

Public deliverables will be made available on the aWISH website.
Data are also stored on the Consortium Teams and WP6 data are available through an EV ILVO Teams.

Have you explored appropriate arrangements with the identified repository where your data and other (research) outputs will be deposited? Indicate yes or no and describe.

Not applicable.

Does the repository ensure that the data and other (research) outputs are assigned an identifier? Will the repository resolve the identifier to a digital object?
Not applicable.

Is an embargo applied to give time to publish or seek protection of the intellectual property (e.g. patents)? Indicate yes or no.

Not applicable.

If an embargo is applied, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.
Not applicable.

Will the data and other (research) outputs be accessible through a free and standardized access protocol? Indicate yes or no and describe.

Not applicable.

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

Not applicable.

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

Not applicable.

Is there a need for a data access committee? Indicate yes or no and describe.

No.

Will metadata be made openly available and licensed under a public domain dedication? If not, please clarify why.

Not applicable.

Will metadata contain information to enable the user to access the data? Indicate yes or no and describe.

Not applicable.

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

Not applicable.

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

Not applicable.

FAIR data	Making data interoperable

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

Deliverable files will be in digital format making interoperability easy.

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

Not applicable.

Will your data and other (research) outputs include qualified references to other data (e.g. other data from your work package, or datasets from previous research)? Indicate yes or no and describe.

Not applicable.

FAIR data **Increase data reuse**

When will the data be made available for reuse? How long is it intended that the data remains reusable?

Public deliverables will be made available on the aWISH website after the submission deadline and during the lifetime of the project.
Data are also stored on the Consortium Teams and available for all aWISH partners.
Knowledge, expertise and work flows will be shared when asked for.

How will you provide documentation needed to validate data analysis and facilitate data reuse?

Not applicable.

Will your data and other (research) outputs be made freely available in the public domain to permit the widest reuse possible? Will your data and other (research) outputs be licensed using standard reuse licenses, in line with the obligations set out in the Grant Agreement?

Not applicable.

Will the data and other (research) output produced in the work package be useable by third parties, in particular after the end of the project? Indicate yes or no and explain.

Not applicable.

Will the provenance of the data and other (research) outputs be thoroughly documented using the appropriate standards?

Not applicable.

Describe all relevant data quality assurance processes.

Do you have any additional information, that was not addressed in the previous sections, which you wish to provide regarding other (research) outputs that are generated or reused throughout the project?
No.

Allocation of resources

What will the costs be for making data and other (research) outputs FAIR in your work package?

Not applicable.

How will these be covered?

Not applicable.

Who will be responsible for data management in your work package?
Anneleen Watteyn
Anneleen De Visscher

How will long-term preservation be ensured?

Not applicable.

Data security

What provisions are or will be in place for data security?

Deliverables and reports will be made available on the project's Teams and aWISH website.

Will the data be safely stored in trusted repositories for long-term preservation and curation? Indicate yes or no and describe.

Not applicable.

Ethics

Are there, or could there be, any ethics or legal issues that can have an impact on data sharing? Indicate yes or no and describe.

Yes, for audio and video recordings the consent will be asked at the beginning of the meeting/discussion.

Will informed consent for data sharing and long-term preservation be included in questionnaires dealing with personal data? Indicate yes, no or not applicable and explain.

	No.
Other issues	Do you, or will you, make use of other national/funder/sectorial/departmental procedures for data management? If yes, which ones? Please list and briefly describe them. No.

4.2 Data Collection Pilots

Up till now 19 datasets are identified. General information is shown in the Table below. Data asset features, data asset availability, data access rights, data analysis and availability in the aWISH platform are stored on the consortium Teams.

Dataset General Information

Dataset ID	Demo Case-related ID	Data Asset Title	Description	Date of Last Update
[Unique identifier following the convention "Pilot#_Partner#no"]	*[Unique identifier following the convention "Pilot#_DC#no"]*	*The title of the data asset*	*A brief description of the data asset - At least 2-3 lines to give an overview of the data*	*The date of the last update of the specific spreadsheet*
Pilot1_VION1	Pilot1_DC1	Carcass composition data	Data from full carcass scan system (AutoFOM) to measure carcass composition	11/04/2023
Pilot1_FBN1	Pilot1_DC2	Stress behaviour data	Count data for stress vocalisation and general activity in different areas of the slaughterhouse (unloading, lairage, driving corridor)	02-14-2023
Pilot4_PLUK1	Pilot4_DC1	Footpad Lesions	Statistics of footpad lesions on flock level	02-22-2023
Pilot4_PLUK2	Pilot4_DC2	Hockburns	Statistics of hockburns on flock level	02-22-2023

Pilot4_PLUK3	Pilot4_DC3	CatchDamage	Statistics of catch damage on flock level	02-22-2023
Pilot3_PLUK1	Pilot3_DC1	Footpad Lesions	Statistics of footpad lesions on flock level	02-22-2023
Pilot3_PLUK2	Pilot3_DC2	Hockburns	Statistics of hockburns on flock level	02-22-2023
Pilot1_VION2	Pilot1_DC3	PigInspector	Statistics of Ear, tail and skin lesions on batch level	02-22-2023
Pilot2_W2B1		CET'automatique (adapted for hanged pigs)	Vision system evaluating the consciousness of pigs stunned by gas. The analysis will be based on one or two consciousness indicators. Pigs are bled vertically and a gush of air is throwed on the eye.	16/03/2023
Pilot2_W2B2		tear-staining scoring	Vision system classifying the tear-staining of the pig by picture, based on scoring	16/03/2023
Pilot3_W2B1		Stunning effectiveness checking system	Vision system evaluating the consciousness of broilers stunned by gas, into and/or after the tunnel. The analysis will be	16/03/2023

			based on one/several consciousness indicators.	
Pilot1_InnoTech1	Pilot1_DC??	developmental data re: lung lesion assessment	Data from slaughterhouses re: lesions for development purposes	23/03/2023
Pilot2_InnoTech1	Pilot2_DC??	weight and environmental data	Data from farms about the weight of pigs and environmental condistions in piggery buildings	23/03/2023
Pilot4_PLUK3	Pilot4_DC4	ChickenCheck Scratch	Statistics of scratches on the back on flock level	03-23-2023
Pilot6_FBN1	Pilot6_DC1	Stress behaviour data	Count data for stress vocalisation and general activity in different areas of the slaughterhouse (unloading, lairage, driving corridor)	03-29-2023
Pilot5_GROSS1	Pilot5_DC1	PigInspector	Statistics of Ear, tail and skin lesions on batch level	4/04/2023

4.3 Privacy policy and NDA

Privacy policy

1. Scope and responsibility for data processing

This privacy policy applies to all personal data collected as part of the dissemination and co-innovation activities within the Horizon Europe aWISH project.
The entity responsible for processing this data is:
The project aWISH has received funding from the European Union Horizon Europe Research and Innovation Program under Grant Agreement No. 101060818.

The user must carefully read this privacy policy and decide freely if he/she intends to provide his/her personal data to the aWISH project before communicating data. The user guarantees that he/she is of legal age and that the data communicated are true, accurate, complete and current, being responsible for any nonconformity. If the data communicated belongs to a third party, the user guarantees that he/she informed the third party about the conditions provided in this document and that he/she was authorized to provide his/her data to the aWISH project for the indicated purposes.
You may contact aWISH on any matter related to this privacy policy, through aWISH Coordinator's secretariat:
Coordinator ILVO: awish@ilvo.vlaanderen.be

2. Purposes of the treatment and legal basis

The personal data according with the General Data Protection Regulation (GDPR) and collected through this website are intended to allow the following operations:

- Participation in workshops, seminars, conferences, webinars and other events organized by the Horizon Europe project aWISH;
- Participation in surveys, questionnaires or similar enquiries, organized by the Horizon Europe project aWISH;
- aWISH official public reports and public Deliverables that collected data and will be available on different channels of the project. Other reports and Deliverables will be covered by all EU rules.
- aWISH research communications, such as newsletters, news or other related activities

The processing of personal data is necessary to carry out the aforementioned operations.

3. Recipients

The personal data of the user may be communicated to a suitable service provider contracted by the aWISH project, which will treat the data exclusively for the purposes established by the aWISH project and in compliance with the instructions issued by the aWISH project, strictly complying with the legal rules on data protection information security and other applicable standards, pursuant to a written agreement between the parties.

4. Cookies

If you leave a message on our website, your name and email address will be saved in cookies. These are for your convenience so that you do not have to fill in your details again when you leave another comment. These cookies will last for one year.

This portal uses web analytics service provided by BIOSENSE. Cookies (small text files stored locally on your computer) are used to help analyse how people use this portal. The collected information, including your IP-address, will be stored on servers in Serbia.

aWISH and BIOSENSE will use this information to generate reports on portal usage. aWISH and BIOSENSE will only share the collected information with third parties when legally required to do so. Your IP-address will not be combined with that of other websites or other data sources that are available to aWISH and BIOSENSE.

5. International data transfers

The aWISH project will process user data in its entirety within the territory of the European Economic Area (EEA) and therefore does not provide for any international transfer of data.

6. Shelf life

The aWISH project will keep the personal data of the users for the period necessary for the accomplishment of the purposes for which they were collected; The aWISH project will maintain these data through the period that it is obliged to by the law. The aWISH project may also keep the data beyond these periods for statistical purposes, and for this purpose anonymize them.

7. User rights

The user has the right to request from the aWISH project access to personal data concerning him/her, as well as his rectification or deletion, and the limitation of the treatment with respect to the user, or the right to object to the treatment, as well as the right to portability of data, in accordance with the laws governing the processing of personal data.

To exercise the aforementioned rights, the user may contact the data controller through the addresses indicated in paragraph 1 of this policy. He/she can also file a complaint with its National Data Protection Authority. More information on this can be found at the website for the European authority https://edpb.europa.eu/.

8. Further information

The institutions in the consortium implementing the project aWISH have all signed a Consortium Agreement in which they accept to ensure that their collection, processing and sharing of Personal Data and/or Special Category Data of Personal Data are in compliance with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 (the General Data Protection Regulation (GDPR)) and other applicant regulation on Personal Data.

aWISH is furthermore part of the EU's Open Research Data Pilot (ORDP). The project's Data Management Plan can be found here.

NDA

aWISH - STAKEHOLDER ADVISORY BOARD - NON DISCLOSURE AGREEMENT

BETWEEN THE PROVIDING PARTY, COORDINATOR OF THE HORIZON EUROPE AWISH PROJECT:

Het Eigen Vermogen van het Instituut voor Landbouw-en Visserijonderzoek (EV ILVO), KBO 0262.72.489 located at Burgemeester Van Gansberghelaan 92/1, 9820 Merelbeke, Belgium, duly represented by Joris Relaes, chair of the EV ILVO management Committee,

AND THE RECEIVING PARTY, MEMBER OF THE EXTERNAL STAKEHOLDER ADVISORY BOARD (SAB)

...

hereinafter collectively referred to as the "Parties" and individually as a "Party".

PREAMBLES:

Whereas this agreement aims at defining the general principles concerning the disclosure of confidential information by the Disclosing Party to the Receiving Party in connection to the potential transaction(s).

Whereas the purpose of this agreement is to clarify the arrangements for the release of confidential information by the Disclosing Party to the Receiving Party,

THERETO THE PARTIES AGREE AS FOLLOWS:

Article 1. Definitions

1.1. Confidential Information: Confidential information may include scientific, technical, financial, commercial or other information disclosed or made available in written, electronic, oral or any other form. Confidential Information that is disclosed in writing shall be marked with a legend indicating its confidential status. Confidential Information that is disclosed orally or visually shall be documented in a written notice prepared by the Disclosing Party and delivered to the Receiving Party within thirty (30) days of the date of disclosure; such notice shall summarize the Confidential Information disclosed to the Receiving Party and reference the time and place of disclosure.

Confidential Information also includes this agreement and the existence and contents of any discussion relating to the potential transaction(s).

1.2. Purpose: The AWISH Consortium Agreement mandates the Coordinator EV ILVO to conclude for each member of the External Stakeholder Advisory Board (SAB) a non-disclosure agreement, in order to protect Confidential Information disclosed by any of the Parties to any member of the SAB

Article 2. Confidential Information

2.1. The Receiving Party can use the Confidential information with the sole objective of evaluating the Purpose.

2.2. The Confidential Information is provided "as is". The Disclosing Party makes no warranty, express or implied, regarding the accuracy, completeness, fitness for a particular purpose or the absence of infringement of third-party intellectual property rights.

2.3. The Receiving Party will not publish or disclose to any third party the Confidential Information without the written prior consent of the Providing Party. The Receiving Party shall protect the Confidential Information with the same degree of care as it applies to protect its own, but in no event less than with a reasonable degree of care. It is recognized that the Receiving Party may be required to disclose Confidential Information to employees, contractors, agents, consultants and employees thereof, for the evaluation of the Purpose. The Receiving Party will exercise reasonable care in the selection of such employees, contractors, agents and consultants, and will fully advise all such persons of the confidentiality of the Confidential Information.

2.4. The Receiving Part agrees that all Confidential information (and copies thereof) remains property of the Providing Party. The Receiving Party will, upon the disclosing Party's written demand, return or destroy all copies and records of the Confidential Information to the Providing Party with the reservation that:

(a) The Receiving Party shall not be liable to return or destroy such Confidential Information and elaborations thereof as have been saved to electronic carriers under automatic archiving or data security procedures as long as no attempt is made to recover such information,

(b) The Receiving Party shall be allowed to retain one copy of Confidential Information for audit, insurance or regulatory compliance purposes

(c) Confidential information which is contained in the minutes or supporting papers relating to any board or committee meeting of the Receiving Party, and any other Secondary Information must not be returned or destroyed, and

(d) The Receiving Party may retain such Confidential Information which is required to be retained for the purposes of complying with any judicial, governmental, supervisory or regulatory body or any applicable rule, regulation or law.

2.5. Notwithstanding this Agreement, the receiving Party may disclose Confidential Information to the extent it can demonstrate, by clear and convincing written evidence, that such Confidential Information:

(a) at the time of disclosure or acquisition is generally available to the public;

(b) after the time of disclosure or acquisition becomes generally available to the public through no wrongful act of the receiving Party;

(c) is or becomes available on a non-confidential basis from an independent third party who, to the receiving Party's knowledge, was not under a duty of confidence to the disclosing Party;

(d) was in the possession and at the free disposal of the receiving Party prior to disclosure by the other Party;

(e) is developed independently by its personnel who did not have access to the Confidential Information received from the Disclosing Party;

(f) is disclosed by the receiving Party in order to comply with the requirements of applicable law or governmental regulation,

No information which is specific shall be deemed to be within any of the foregoing exceptions, merely because it is embraced by more general information which falls within any one of the foregoing exceptions. The Receiving Party, invoking one of the above mentioned exceptions, shall have the burden of proof that such exception is applicable

Article 3. General conditions

3.1. This agreement shall enter into force on the Effective Date for a period of 4 years. The obligations of confidentiality and non-use set forth herein shall survive the termination of this agreement or any extension thereof for a period of 4 years.

3.2. Notwithstanding anything in this agreement to the contrary, neither of the Parties shall be obliged to enter into any further agreement relating to the Potential Transaction.

3.3. This agreement constitutes the entire agreement between the Parties with respect to the subject matters hereof. This agreement may not be modified in any respect by any verbal statement, representation, or agreement made by any employee, officer, or representative of either party, nor by any written documents unless it is signed by a dully authorized officer of both parties.

3.4. This agreement shall be governed by and construed in accordance with Belgian Law and the Parties irrevocably submit to the exclusive jurisdiction of the Courts of East Flanders, section Ghent in respect of any claim, dispute or difference arising out of or in connection with this agreement.

This Agreement is drawn up in two copies in Merelbeke – each party acknowledges to have received one copy.

Read and approved,	Read and approved,
Date:	Date:
For EV ILVO	For …
Name: Joris Relaes	Name:
Function: Chairman of the Management Commission	Function:
Signature	Signature