D1.3 INITIAL DATA MANAGEMENT PLAN

Project: Monitoring of Environmental Practices for Sustainable Agriculture
Supported by Earth Observation

Acronym: ENVISION

Document Information

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CONTENT

Executive Summary

The purpose of the current is to present the initial version of the Data Management Plan (DMP) of the ENVISION project. This deliverable has been compiled with the collaborative work among the coordinator and the consortium partners who are involved in data collection, production and processing.

The scope of the DMP is to describe the data management life cycle for all datasets to be collected, processed and/ or generated in all Work Packages (WP) during the course of 36 months of the ENVISION project. FAIR Data Management is highly promoted by the European Commission (EC) and since ENVISION is a data intensive project, relevant attention has been given to this task. By following the FAIR template, datasets are analysed, while providing answers about how the data will be managed within the project and also describing how it will be to provide as much open and re-usable data as possible from the execution with the purpose of facilitating to others the reuse of such data.

However, the DMP is a living document in which information will be made available on a more detailed level through updates as the implementation of the ENVISION project progresses and when significant changes occur. This document is the initial of the three versions to be produced for the DMP throughout the ENVISION project's duration.

The deliverable is structured in the following chapters:

Chapter 1: Introduction – Includes an introduction to the deliverable

Chapter 2: Methodology – Includes a description of the methodology used, an analysis of the chapters of the provided template and last the methodological steps followed in ENVISION

Chapter 3: DMP Components in ENVISION – Includes a description of the datasets to be used in ENVISION reflected on the template provided by EC

1   Introduction

The Deliverable D1.3 Initial Data Management Plan represents the first version of the DMP of the ENVISION project. ENVSION is an Innovation Action project funded under the H2020 program of the EC that will last 36 months. Therefore, ENVISION participated in ORD Pilot, and, thus, is providing, as requested, the current deliverable six months after the beginning of the project.

The current deliverable aims to ensure proper and sound management of the research data that will be collected, processed and/ or generated within ENVISION. The main objectives of the document are to a) detail the handling of research data during and after the project, b) describe the methodology and standards required, c) identify whether and how data will be shared, exploited or made accessible for verification, and re-use, and d) identify how they will be curated and preserved.

The DMP is a living document which will be evolved during the whole lifespan of the project. The current document is the first of the three versions to be delivered throughout the ENVISION project. The second version (D1.4 Intermediate Data Management Plan) will be delivered on M18 and the final one (D1.6 Final Data Management Plan) on M32.

2   Methodology

The DMP methodology approach that has been used for the compilation of the D1.3 has been based on the updated version of the "Guidelines on FAIR Data Management in Horizon 2020[1]" version 3.0 released on 26th of July, 2016 by the EC Directorate – General for Research & Innovation.

The ENVISION DMP addresses the following issues:

- Data Summary
- FAIR data
    - o Making data findable, including provisions for metadata
    - o Making data openly accessible
    - o Making data interoperable
    - o Increase data re-use
- Allocation of resources
- Data security
- Ethical aspects
- Other issues

The ENVISION project coordinator (DRAXIS) has provided on time all the WP leaders and rest of the partners with a template that includes all the 10 aforementioned issues along with instructions to fill it in.

2.1   Data Summary

The Data Summary addresses the following issues:
- What is the purpose of the data collection/ generation and its relation to the objectives of the project?
- What types and formats of data will the project generate/ collect?
- Will you re-use any existing data and how?
- What is the origin of the data?
- What is the expected size of the data?
- To whom might the data be useful ("data utility")?

The ENVISION project will make use of heterogeneous types of available data (EO-based, in situ, open data, and historical on-field check data) and state-of-the-art technologies and methodologies (automatic pixel/ texture/ object-oriented change detection and classification methods, machine learning, data fusion, multi-source and multi-temporal data management) for providing a fully automated and scalable toolbox of services for continuous and systematic monitoring of agricultural land. Therefore, the majority of the data will fall into the following categories:
- Open data and value-added products of the European EO programme Copernicus.
- Satellite data from the European Space Agency portal, which provides access to the Copernicus Space Component Data.

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[1] European Commission, (26 July 2016), *Guidelines on FAIR Data Management in Horizon 2020*, Version 3.0

- Optical data from NOA's Ground Segment, with reference to missions as MODIS, NPP, NOAA, FYI, the MetOP and the future NPOESS satellites to support regional scale studies and assessments.
- Full and open access Sentinel data acquired from the ESA's Collaborative Ground Segment, the so-called Mirror Sites established at selected Europe and world-wide locations, the Copernicus Open Access Hub and one of the DIAS platforms. The open satellite data and value-added product of Copernicus, the satellite data from the Greek Mirror Site at high and medium resolution, the satellite data available through the ESA portal, and the Landsat TM data of USGS archives which are freely available, will be the main sources for retrieving information relevant to the crop parcels. The direct access to a multitude of satellite sensors, and the adequate processing using pixel/ texture based and object-based techniques, will allow timely detection and diagnosis of crop status and soil moisture at parcel level, and crop/ parcel monitoring over time SAR (Synthetic Aperture Radar) data acquired from ESA and CSA archives, as well as archives of VHSR SAR images (TerraSAR-X, COSMO-Skymed).
- Real-time meteorological and climatological data produced by ingesting and assimilating data from surface weather stations and satellite radiances.
- Purchased VHR images acquired from commercial channels of satellite data providers (Worldview, IKONOS, Quickbird, Pleiades, etc.) for the validation of machine learning algorithms (crop classification, mowing detection) through photointerpretation.
- Parcels vector data acquired from the PAs that keep updated databases of parcel reference data and parcel cropping data in the framework of the LPIS.
- Pasture lands vector data acquired from LPIS and nationwide Vegetation and Land Use/ Land Cover databases.
- Validated compliance decisions from on-farm checks, to train and validate the models and algorithms.
- Elevation data acquired from existing freely available Digital Terrain Models, but also HR and more accurate DTMs available by the national Cadastral Organisations and Mapping Agencies, and those produced in the framework of LPIS implementation.
- Freely available or user provided statistical yield data to be used for training the machine learning based regression models for yield prediction.
- Users (e.g. farmers) will have the opportunity to upload pictures and relevant information to the platform. Automated workflows will parse, transform and harmonise the incoming data and modify the various measurements and imagery producing information packets for further processing by the system.
- In-situ data will be employed to train the ML algorithms and validate their results.

At this stage of the project, these data are not in any way all-inclusive but provide a basis from which ENVISION project has developed the user requirements in relation to the ENVISION platform.

The types of data that will be generated and are going to be offered under various data licenses are:
- Cultivated crop type maps
- Soil organic carbon
- Vegetation status
- Crop growth (distinction of organic – conventional farming)
- Grassland mowing/ ploughing

- Soil erosion

Privacy issues will be taken into account in order to ensure that no personal or sensitive data of any farmer are dispersed. Furthermore, any data and service generated by ENVISION are intended for commercial use: interested users will have to pay a subscription fee in order to have access to the services. However, these services will be available under open data license for exploitation by individuals, public and private sector, education with a delayed access after the passing of a specified "embargo period", which will be two declaration periods. After the given "embargo period" further data sharing and accessibility for verification and re-use will be available through the ENVISION platform open to anyone.

Within ENVISION all personal data used in the project will be protected and all partners will fully comply with the applicable national, European and international framework, and the European Union's General Data Protection Regulation 2016/679. When possible, the data collected in the project will be available to third parties in contexts such as scientific scrutiny and peer review.

2.2 FAIR data

2.2.1 Making data findable, including provisions for metadata

This point addresses the following issues:
- Are the data produced and/ or used in the project discoverable and identifiable?
- What naming conventions are they followed?
- Will search keywords be provided that optimise possibilities for re-use?
- Are clear version numbers provided?
- What metadata will be created?

This point refers to existing suitable standards of the discipline, as well as an outline on how and what metadata will be created. Therefore, at this stage, the available data standards (if any) accompany the description of the data that will be collected and/ or generated, including the description on how the data will be organised during the project, mentioning for example naming conventions, version control and folder structures.

As far as the metadata are concerned, a number of standards for open data is already available that be applied to applications related to the ones proposed by the ENVISION project. These include the EU Directive 2007/2/EC on Infrastructure for Spatial Information in the European Community (INSPIRE) which addresses spatial data themes needed for environmental applications (http://inspire.jrc.ec.europa.eu/). A number of best practices and guidelines for working with Open Data are also available, mostly by organisations or institutions that support and promote Open Data initiatives. These include:
- Open Data Foundation (http://www.opendatafoundation.org/)
- Open Knowledge Foundation (https://okfn.org/)
- Open Government Standards (http://www.opengovstandards.org/)

These initiatives will be carefully considered in order to ensure the biggest impact of our data.

2.2.2 Making data openly accessible

The objectives of this point address the following issues:

- Which data produced and/ or used in the project will be made openly available as the default?
- How will the data be made accessible (e.g. by deposition in a repository)?
- What methods or software tools are needed to access the data?
- Is documentation about the software needed to access the data included?
- Is it possible to include the relevant software (e.g. in open source code)?
- Where will the data and associated metadata, documentation and code be deposited?
- Have you explored appropriate arrangements with the identified repository?
- If there are restrictions on use, how will access be provided?
- Is there a need for a data access committee?
- Are there well-described conditions for access (i.e. a machine-readable license)?
- How will the identification of the person accessing the data be ascertaibed?

2.2.3 Making data interoperable

This point describes the assessment of the data interoperability specifying what data and metadata vocabularies, standards or methodologies are followed in order to facilitate interoperability. Moreover, it addresses whether standard vocabulary is used for all data types present in the dataset in order to allow inter-disciplinary interoperability. Specifically, it addresses the following issues:
- Are the data produced in the project interoperable?
- What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?
- Will you be using standard vocabularies for all data types present in your dataset, to allow interdisciplinary interoperability?
- 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?

2.2.4 Increase data re-use

This point addresses the following issues:
- How will the data be licensed to permit the widest re-use possible?
- When will the data be made available for re-use?
- Are the data produced and/ or used in the project useable by third parties, in particular after the end of the project?
- How long is it intended that the data remains re-usable?
- Are the data quality assurance processes described?

2.3 Allocation of resources

The objectives of this point address the following issues:
- What are the costs for making data FAIR for your project?
- How will these be covered?
- Who will be responsible for data management in your project?
- What are the costs and potential value of long-term preservation?

2.4 Data security

This point addresses data recovery as well as secure storage and transfer of sensitive data. Specifically, this point addresses:

- Is the data safely stored in certified repositories for long-term preservation and curation?
- What provisions are in place for data security?

2.5 Ethical aspects

This point covers the context of the ethics review, ethics section of DoA and ethics deliverables including references and technical aspects. Specifically, it addresses the following issues:

- Are there any ethical or legal issues that can have an impact on data sharing?
- Is informed consent for data sharing and long-term preservation included in questionnaires dealing with personal data?

2.6 Other issues

Other issues refer to other national/ funder/ sectorial/ departmental procedures for data management that are used.

3   DMP Components in ENVISION

3.1   DMP Components in WP1 – Management (DRXS)

DMP Component	Deliverable Title
Data Summary	Contact details of the project partners. Databases containing all the necessary information regarding the project partners. The project partners data are stored on a simple table (excel file) and it is stored on the ENVISION dropbox folder, with the following fields. • Organisation • Name • Email Furthermore, consortium meetings will be conducted remotely every month in order to discuss the project progress and address any important issue. Most meetings of the meetings will be conducted using Google Meet. Minutes will be prepared after each meeting and will be stored on the ENVISION dropbox folder (docx. format). The expected size of the docx. is not applicable. Moreover, WP leaders have sent input on how they will handle the data produced during the project. Presentations, agenda and the participants list of each plenary meeting or review meeting will be collected and kept. Lastly, interviews with be contacted with Lighthouse Customers (LHCs) and Advisory Board (AB) members in order to inform them about the project status and progress, as well as to explore the LHCs' involvement and contribution into the project and during the business cases implementation. Interview will be held using Skype, Zoom or Google Meet (due to COVID-19 pandemic).
Making data findable, including provisions for metadata	The data with regards to the remote meeting as well as the plenary and review meetings will be stored on DRXS server and in the ENVISION dropbox folder. The data will not be directly accessible from outside. Moreover, these data will bot be made available to third parties. However, input provided with regards to the data management, as well as LHCs and AB members will be available in D1.3 Initial Data Management Plan, D1.4 Intermediate Data Management Plan, D1.5 Intermediate report on Lighthouse Customers and Advisory Board feedback and actions taken, D1.6 Final Data Management Plan and D1.7 Final report on Lighthouse Customers and Advisory Board feedback and actions taken. The dissemination level of these deliverables is public and they will be available in the project's website (https://envision-h2020.eu/), dropbox folder and in

	Zenodo[2] (https://zenodo.org/communities/envision/) through the Digital Object Identifier (DOI). The naming conventions used for these data will be: • Data_WP1_1_Data_Management_Plan • Data_WP1_2_Lighthouse_Customers • Data_WP1_3_Advisory_Board_Members As part of any stored data, metadata will be generated which will include sufficient information with appropriate keywords to help external and internal users to locate data and related information.
Making data openly accessible	The datasets will not be publicly available. All the data will be made publicly available as part of the aforementioned deliverables and through the ENVISION website, dropbox folder and Zenodo.
Making data interoperable	N/A
Increase data re-use	Data will be publicly available as part of the aforementioned deliverables and will be accessed and re-used by third parties indefinitely without a license.
Allocation of resources	Resources will be allocated according to the project plan and WP1 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The data will be collected for internal use in the project, and not intended for long-term preservation. No personal information will be kept after the end of the project. Furthermore, DRXS pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's General Data Protection Regulation (GDPR) 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.2 DMP Components in WP2 – Commercial Service Requirements (URDG)

DMP Component	Deliverable Title
Data Summary	WP2 will gather the user needs from Paying Agencies (PAs), Certification Bodies (CBs) and other end users of the ENVISION platform and services. This will provide the developers with a set of prioritised needs which will feed in the tasks described in WP3 and WP4. In addition, WP2 will identify potential problems that may hinder the adoption of ENVISION by PAs and CBs (internal to the organisation weaknesses, and external threats).
	WP2 will also collect data regarding gender considerations integrating the gender dimension within the project by clearly articulating the gender relevance to all WPs, estimating how research findings apply to the specific needs of all sexes, ensuring data disaggregation on sex and gender related issues and considering all intersecting factors. It will also tackle dissemination issues of the project and its results.
	The data generated within WP2 regarding the user needs, will have the form of "user stories" which provide information in respect to the characteristics of specific roles about of the end users (IT experts, administrator, coordinator, inspector, etc.), their needs associated to the services provided by the ENVISION platform and a description of why they need it. In addition, online workshops and co-production meetings taking place during tasks 2.2 and 2.3 of WP2 will be recorded. The videos will serve the purpose of the detailed capture of information and in addition these will offer the chance to revisit the workshops and summarise the outcomes. The data will be extracted from end-users participating in an online survey and to a series of online workshops and consultations and will be summarised into several excel spreadsheets that contain information relating to the four business cases. The size of the video recording will be relevant to the duration of the meeting. These data will be useful to software developers and researchers who wish to understand the "needs of key stakeholders" that form the core of the development process of platforms and tools for remote monitoring of environmental activities.
	The data regarding the task 2.5 will be collected by all partners using excel files. As these personal data will include sensitive information, attention will be given so that no persona might be identified once processed. Additionally, to safeguard the privacy of each partner within their organisations and consortium, this information will be sent directly to the responsible processor, who is the Project's Ethic Manager and the Information Security Officer of her organisation. The data will be used to produce statistics and no other information will be included and the excel files will not be preserved.

Making data findable, including provisions for metadata	The data produced either via the online survey or the workshops with the end-users (video recordings included) will not be identifiable to the individual respondent. However, there will be metadata that will allow the institution to be identified. These data will be stored on URDG's servers.
	Regarding the data for tasks 2.5, no information will be available to third parties directly and the provided excel files by the partners will be deleted after the process of the information that will be included in the respective deliverable. The outcome of the aforementioned information will be available in D2.1 Review of current services provision, D2.2 Report of customer requirements from ENVISION services, D2.3 Gender Situation Analysis and Needs Assessment, D2.6 Draft_Report of co-production of ENVISION services and D2.7 Report of co-production of ENVISION services. The dissemination level of these deliverable is public and they will be available in the project's website, dropbox folder and in Zenodo through the DOI:
	- D2.1 Review of current service provision: DOI: https://doi.org/10.5281/zenodo.4564201 - D2.2 Report of customer requirements from ENVISION services: DOI: https://doi.org/10.5281/zenodo.4564653 - D2.3 Gender Situation Analysis and Needs Assessment: DOI: https://doi.org/10.5281/zenodo.4564344
	The naming conventions used for these data will be:
	- Data_WP2_1_PA_survey - Data_WP2_2_User_needs - Data_WP2_3_Co-production - Data_WP2_4_Gender_Considerations
	A thematic analysis will be conducted to identify suitable keywords that could allow future scenarios and metadata will include the date of data collection, the source (interview/workshop/video recording), the organisation and role of individual in the organisation, and contact information (whenever appropriate/ available i.e. in the case of ENVISION partners).
Making data openly accessible	The datasets will not be publicly available.
	All the data will be made publicly available as part of the aforementioned deliverables and through ENVISION website, dropbox folder and Zenodo. Furthermore, the data regarding user needs will be made available through scientific publications in a summarised form.
Making data interoperable	The data will be a series of user needs and statistics that will be analysed and reported in a format that will be easy to share between stakeholders and be interpreted by any party.
Increase data re-use	The data with regards to gender considerations will not be available for re-use. The data regarding the user needs will be

	available once the papers are published. Some of the initial data will be reported in an early publication relating to user needs (2021/11) and the co-production methodology will be made available in a publication after the end of the project (2022/23).
	Most of the data in WP22 is project-specific but the co-production methodology will be useable for other third parties after the end of the project and the data will remain re-usable as long as it is useful.
	The questionnaires and workshops as well as the excel files regarding gender considerations task, will receive ethical clearance and the data will be double checked for prevention of errors.
Allocation of resources	Resources will be allocated according to the project plan and WP2 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The data will be collected for internal use in the project, and not intended for long-term preservation. No personal information will be kept after the end of the project. Furthermore, DRXS and ETAM pay special attention to security and respect the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679. Lastly, ETAM has appointed a specific Information Security Officer and they implement an accredited Information Security Management System according to EN ISO 27001:2013.
Ethical aspects	The user need methodology has received ethical clearance from the School of Agriculture, Policy and Development (University of Reading) to ensure that the participants are protected. In addition, the collection of the gender and sex related issues has also received ethical clearance from ETAM and an Information Security Officer has been appointed since the data collected are considered sensitive data.
	Therefore, the data raise no legal issues.
Other issues	N/A

3.3 Earth Observation data products (NOA)

3.3.1 Task 3.2 Auxiliary data collection (Lead Partner: DRXS, Contributors: NOA, NPA, LV, CAPO, OCS, EV ILVO, INOS, AgroApps)

DMP Component	Deliverable Title
Data Summary	The data which will collected in WP3 will cover the needs to implement and validate all the desired products in all the business cases. All collected data will be available in raster and vector format, accessible through FTP. The origin of the data for WP3, will be from: • Joint Research Center (JRC) for Very High Resolution (VHR) images, • Farmers' declarations, along with access to the Land Parcel Identification System (LPIS), and VHR imagery has been provided by the PAs • Farmers' declarations, along with access to the Geoserbjia has been provided by the CB • Auxiliary data concern farmers' personal and farm information and shapefiles containing farm location. • Laboratory results of soil. Data products will assist to calibrate, validate and feed ENVISION's processing algorithms to attain the highest information quality possible for improved remote monitoring and decision-making services to PAs, CBs and other users. Auxiliary data include: • LPIS • Farmers' past declarations • Remote sensing results • Layers • Laboratory results Data gathered are approximately 20 GB.
Making data findable, including provisions for metadata	The auxiliary data will be available to all technical partners through FTP. Data will be stored in a file under the responsibility of the data controllers (NOA, EV ILVO, AgroApps) and labelled with the work package, country of origin and the type of data. Commercial VHR satellite imagery that will be used in the context of the pilots will be restricted due to the associated restrictions of the satellite data vendor and the JRC. The naming convention used will be: Data_WP3_Country_of_Origin_Type_of_data
Making data openly accessible	The data will be kept closed until the end of the project due to handling of personal data and will not be allowed and disclosed to be used by any third party. Anonymised and summarised data will be available in any public deliverable (D3.2 Catalogue on auxiliary data and available repositories to be incorporated, D3.3 Data products initial report, D3.5 Report on collected auxiliary data, D3.6 Data product validation report (file version), D3.7 Data products final

DMP Component	Deliverable Title
	report) or through any other relevant publications relating to dissemination and exploitation purposes. The raw data that will be provided to the technical team will not be publicly available to third parties and will be provided under a confidentiality agreement (CA) between the involved partners.
Making data interoperable	N/A
Increase data re-use	N/A
Allocation of resources	Resources will be allocated according to the project plan and WP3 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The data will be collected for internal use in the project, and not intended for long-term preservation. No personal information will be kept after the end of the project. Furthermore, NOA, EV ILVO, AgroApps pay special attention to security and respect the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.3.2   Task 3.3 Analytics on Vegetation and Soil Index Time-Series, Task 3.4 Cultivated crop type maps, Task 3.5 Grassland mowing events detection (Lead Partner: NOA)

DMP Component	Deliverable Title
Data Summary	The products which will be generated during these tasks, will cover the needs to implement and validate all the desired products in all the business cases. All collected data will be available in raster and vector format. All generated data will be used as input in WP4. **EO data** Multi-year time-series of Sentinel-1 and Sentinel-2 images for nationwide coverage of Lithuania and Cyprus. **Vector data** Multi-year LPIS data for Cyprus and Lithuania, provided by the respective PAs, project partners, and will be used for training and validating the machine learning (ML) algorithms. They will be available in a vector format (shapefile, .shp) as a collection of polygons depicting parcel boundaries. **Size of input data** Sentinel-2 images are about 800MB each, while Sentinel-1 around 1GB (GRD) and 8GB (SLC) each. Assuming 2 business cases, the following estimation is provided over: • For Lithuania: o Sentinel-2: 800MB * 13 tiles * 5 images per month * 12 months * 4 years = ~2,000 GB o Sentinel-1: 1GB * 4 tiles * 5 images per month * 12 months * 4 years = ~ 1, 000GB

	• For Cyprus:
	o Sentinel-2: 800MB * 3 tiles (as a worst-case scenario) * 5 images per month * 12 months * 4 years = 576 GB
	o Sentinel-1: 1GB * 5 images per month * 12 months * 4 years = 240 GB
	VHR imagery is of the order of around 20GB in total. Vector data are a few hundred MBs in size depending on the number of features along with their attributes.
	This is a gross estimation, presenting the worst-case scenario where 4 years will be processed. The optical images in many occasions, will be covered by clouds. Clouds and other not useful parts of the images will be cropped out so the real image size will be smaller.
	Initial development
	The data/ products that will be generated in these tasks are to provide Earth Observation (EO) products with key information about:
	• Analytics on Vegetation and Soil Index Time-series by producing indicators for vegetation status and health, phenological metrics, soil condition and soil exposure.
	• Cultivated crop type maps
	• Grassland mowing detection product
	The products will be used in the pilot implementation.
	Data and products will assist to calibrate, validate and feed ENVISION's processing algorithms to attain the highest information quality possible for improved remote monitoring and decision-making services to PAs, CBs, and other users.
Making data findable, including provisions for metadata	Training data will be imported by the development team and will be hosted at the ENVISION platform's server. Related metadata will describe the data structure and methodology used to collect them. Once uploaded to the platform, only the development and technical teams will have access to these data.
	Regarding the users' input data, those need to comply with the field requirements of the platform for a successful database query; vector multi-polygon files in .shp form with valid geometry and compatible projection system.
	Raw satellite data that will be used for feature extraction will be stored on the platform's operational database accompanied by the relevant metadata following the original name conventions. They will not be available and accessible to partners and hence will not be open for reuse.
	The output will be accessible only to the registered partners who made the request and it will be available as two layers in a Geoserver's web mapping service (WMS); one layer presenting the flag-map and one layer presenting the yield estimations.
	INSPIRE metadata will be created for all the EO-based geospatial products that will be generated in the lifetime of

	the project. All EO data, value added products, code and metadata will be stored in web server and will be available through RESTful API and WMS. Data is stored on the National Observatory of Athens servers and labelled with the work package, country of origin and the type of data. A unique identifier will be assigned to each EO data. For the added value products, a unique identification separated by underscore (_) will be appended to file name. Versioning identifier will be also appended at the end of the name product starting by 0 (_v00, v01, .., vnn).
Making data openly accessible	Only PAs that made the query (registered users) will have access to the products. Collected imagery and the extracted features. The generated indices and the extracted features will not be available to rest of the partners or users and only the development and technical teams will have access. Regarding the user's input data, apart from the registered user, only the development and technical teams will have access to these data. Only web browser and Internet access are needed for the registered users to access the output data. Data and products will be made accessible through an API on top a Postgres database or on the top of the Data Cube. Spectral Indices and EO-based classification objects will be made available. No special software is needed in order to access the data. A user can create scripts to access and query the database and retrieve relevant datasets. The data and associated metadata will be deposited in NOA's servers.
Making data interoperable	PostGIS, Open Data Cube, Mapserver and Geoserver tools will be available for a widely accessible management of EO information. The output data will be available in GeoTiff or (Graph Modeling Language) GML format with associated metadata and accessible through GeoServer application, Map server application, Open Data Cube PostGIS database and RESTful API. INSPIRE protocol provides typical standard for geospatial data and it will be used for metadata descriptors.
Increase data re-use	Appropriate licensing agreement will be required for data access after the project's conclusion, which will be defined through the business model during the course of the project. The EO-based products will be usable by third parties through RESTful API, but only for those parties who are part of the project and during the lifespan of the project. No particular data quality assurance process is followed, and no relevant warranties will be provided.
Allocation of resources	Resources will be allocated according to the project plan and WP3 allocated resources. No additional costs are foreseen for

DMP Component	Deliverable Title
	making this dataset FAIR.
Data security	NOA servers are managed by the IT department. They are regularly backed up and secured. All servers are hosted behind firewalls inspecting all incoming requests against known vulnerabilities such as SQL injection, cookie tampering and cross-site scripting. Finally, IP restriction enforces the secure storage of data. Furthermore, NOA pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.3.3 Task 3.6 Soil condition monitoring (Lead Partner: EV ILVO)

DMP Component	Deliverable Title
Data Summary	EV ILVO is collecting soil samples in the Flanders Region to measure Soil Organic Carbon (SOC). After that, EV ILVO will build a SOC prediction model using Sentinel-2 data. The model will be used to deliver a SOC map of the Flanders Region (Final EO product) A bare soil synthetic data layer was obtained using Sentinel-2 multi-temporal data. This layer supported the choice of the soil sampling locations. The soil sampling campaign will produce a soil dataset consisting of about 170 soil samples, for which SOC content will be measured in the lab (intermediary products). The final SOC model (intermediary product) will generate a geoTIFF SOC map at parcel level (Final EO product) EV ILVO used an LPIS layer (open source) to select only cropland parcels. The Sentinel-2 multi-temporal data (open source) from 2017 until today were used to get the synthetic bare soil layer. EV ILVO will probably use some ancillary data (open source) to build the SOC model. LPIS data was provided by the Agricultural Department of Flanders (LV) but is also open source. The same for the time series of Sentinel-2 data. The SOC service will generate a SOC map of Flanders (Final EO product) during the time of the project that will be probably updated once a year. The estimated size per product is 4GB. The Final EO product is needed by LV to monitor SOC level in the agricultural sector. For the monitoring of the SOC at parcel level, the SOC web services will be developed at ENVISION project.
Making data findable, including provisions for metadata	The geotiffs (Final EO product) that will present the SOC distribution and its metadata will be discoverable and identifiable. Regarding the naming that will be followed, the description will follow the example below:

	TopSoilSOCmap_Region_StartPeriod_EndPeriod_ModelDataSet.geotiff For example: TopSoilSOCmap_FL_15082018_20022021_001.geotiff Geographic identification and product information will be provided to make data possible for re-use. Naming also will contain information about the version numbers, as follows: StartPeriod_EndPeriod_ModelDataSet Metadata describes the range of the S2 satellite data set, the model data set, the model accuracy, the methodology, the data owner and the usage rights.
Making data openly accessible	All the soil data collected in the framework of the project, the lab measurement results and the SOC models belongs to EV ILVO (intermediary products). The EO product (goetiffs) produced in the context of the SOC service will be published at the ENVISION platform to be used by LV (final product). The EO product (goetiffs) will exist in a file system to become accessible. Software and libraries that can handle geotiff images will be used to access the data. EV ILVO will include the info at the metadata as documentation to access the data. Access to the EO product (goetiffs) will be granted to the ENVISION registered users.
Making data interoperable	The exposed format follows OGC standards to be interoperable The core provided information is SOC value per pixel. EV ILVO will follow standard ways to provide it.
Increase data re-use	EV ILVO will give full permission for use and reuse of the EO final products to LV. EV ILVO will give full permission for use and reuse of the EO final products to LV. Lab measurements of the SOC will be available to third parties, after arrangements. In terms of data quality assurance, there are processes that includes the modelling process but also lab measurements.
Allocation of resources	Resources will be allocated according to the project plan and WP3 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The ENVISION platform will store the versions of the SOC geotiffs which means EV ILVO inherits the security level of the platform. EV ILVO will back up the SOC geotiffs, to ensure fast and safe recovery of the EO final products. Internal data management procedures will be applied to the intermediary products. Furthermore, EV ILVO pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.3.4 Task 3.7 Crop growth Monitoring and identification of organic farming practices (Lead Partner: AgroApps, Contributors: DRXS)

DMP Component	Deliverable Title
Data Summary	Task 3.7 will deliver a fully-automated **Organic crop identification service**, which aims at identifying whether a particular crop type declared as organic is classified as such, **based on a traffic light system**. The service will exploit a number of EO derived indicators and tools to ensure effective monitoring of the crop condition variability and phenological stages, in both space and time. To ensure high temporal coverage of the data, the system will utilize data from different spaceborne remote sensors, namely the Sentinel-2 and Sentinel-1 missions.
	For the initial development phase of the service (algorithm training and validation) parcels geospatial data and metadata concerning agricultural practices and cropping information will be provided by the Organic Certification body of Serbia. Afterwards, EO data will be extracted for the agricultural parcels and processed to produce raster layers that will be used as predictors in Machine Learning (ML) Classifier algorithms necessary for farming practice identification. These raster layers will include valuable crop related information such as Vegetation Indices (VIs), crop biophysical parameters, texture analysis features and attributes, resulting after crop phenological analysis. Specifically:
	- Optical Indices such as Normalized Difference Vegetation Index (NDVI), Normalized Difference Water Index (NDWI), Plant Senescence Reflectance Index (PSRI) and REIP (Red Edge Inflection Point), - Radar Indices, such as MPDI (or Polarization Ratio) and PRI (Polarization Ratio Index) - Biophysical Parameters such as Leaf Area Index (LAI), Fraction of Green Vegetation (FCOVER) and Fraction of Absorbed Photosynthetically Active Radiation (FAPAR) - Attributes of Phenological Analysis such as the Date of Maximum Positive Gradient, Length of Plateau, Senescence Slope
	The algorithm development output will be stored in the core component of the service.
	In operational mode, the user defined input data (parcels of interest) will be stored in the platform's operational database and utilized for the EO data query from Copernicus Scientific Hub. After appropriate processing, the output maps (organic or possibly non-organic flag-map) will be provided to the Certification Bodies on a WMS.
	Task 3.7 will also develop a universal methodology for organic crop yield estimation with the use of EO data, for various types of crops. The methodology that will be followed is based

	on the assimilation of EO derived VIs into crop growth models that will calculate total crop biomass production and crop yield.
	EO data
	The EO data will be collected by satellite platforms carrying optical and radar instruments; ESA Sentinel-2A/B mission will provide multispectral images with a 5-day revisit and radar data will be provided by ESA Sentinel-1A/B mission with a 6-day revisit time. Both optical and radar data will be acquired from Copernicus Scientific Hub where they are freely available. (https://scihub.copernicus.eu/dhus/#/home).
	Vector data
	The data defining the area of interest will be provided by the Certification Bodies project partners and will be used for training and validating the ML algorithms. They will be available in a vector format (shapefile, .shp) as a collection of polygons depicting parcel boundaries.
	Size of input data:
	One Sentinel-2 MSI L1C/L2 raw image including all bands in .zip format is 800MB. One Sentinel-1 L1 IW GRDH: raw image including both polarizations and two satellites (S1A, S1B) data in .zip format is 1GB. Considering that the project's pilot phase will last two years and that both summer (maize, sunflower, soybean) and winter (wheat) crops will be monitored, satellite imagery should be available for 24 months. For Sentinel-2 L2A, BOA: 800MB x 52 days x 8 tiles, equals 333 GB. For Sentinel-1 CGR: 1GB x 61 days (considering a mean 6-day revisit period) x 8 tiles, equals 420 GB. This is a gross estimation, presenting the worst-case scenario. The optical images in many occasions, will be covered by clouds. Clouds and other not useful parts of the images will be cropped out so the real image size will be smaller.
	Initial development
	TASK 3.7 aspires to use geospatial data and metadata of 600 parcels per crop type (maize, sunflower, soybean and winter wheat) per farming practice (organic, conventional) in order to achieve sufficient ML performance, during the initial product development. Since two types of farming practices will be examined for four crops of interest, a total of 600 parcels x 4 crop types x 2 farming practices equals 4800 registries. So far 1369 registries have been collected and by June 2021 the goal of 4800 registries is expected to be achieved. The first version of the data product for use in the business case will be delivered in D3.4 (Data products initial report).
Making data findable, including provisions for metadata	Training and validation pilot vector data will be imported by the development team and will be hosted at the platform's server. Related metadata will describe the data structure and methodology used to collect them. Once uploaded to the

	platform, only the development and technical teams will have access to these data.
	Regarding the users' input data, those need to comply with the field requirements of the platform for a successful database query; vector multi-polygon files in .shp form with valid geometry and compatible projection system.
	Raw satellite data that will be used for feature extraction will be stored on the platform's operational database accompanied by the relevant metadata following the original name conventions. They will not be available and accessible to partners and hence will not be open for reuse.
	The output will be accessible only to the registered partners who made the request and it will be available as two layers in a WMS; one layer presenting the flag-map and one layer presenting the yield estimations.
	INSPIRE metadata will be created for all the EO-based geospatial products that will be generated in the lifetime of the project.
	All data, associated metadata and documentation will be deposited into the web server and will be available through RESTful API and WMS.
Making data openly accessible	Only CBs that made the query (registered users) will have access to the produced organic/non-organic flag-maps and parcel yield estimations.
	Collected imagery and the extracted features will not be available to rest of the partners or users and only the development and technical teams will have access.
	Regarding the user's input data, apart from the registered user, only the development and technical teams will have access to these data.
	Only web browser and Internet access are needed for the registered users to access the output data.
Making data interoperable	The output data will be available in GeoTiff or GML format with associated metadata and accessible through GeoServer application, Map server application, PostGIS database and RESTful API. INSPIRE protocol provides typical standard for geospatial data and it will be used for metadata descriptors.
Increase data re-use	Appropriate licensing agreement will be required for data access after the project's conclusion, which will be defined through the business model during the course of the project.
	The EO-based products will be usable by third parties through RESTful API, but only for those parties who are part of the project and during the lifespan of the project.
Allocation of resources	Resources will be allocated according to the project plan and WP3 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	All data will be stored on the platform's server and also on a separate storage server, both with backup procedures. These

	servers are managed by the AgroApps IT department. Furthermore, AgroApps pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.4 DMP Component in WP4 – ENVISION service (DRXS)

3.4.1 System Architecture

DMP Component	Deliverable Title
Data Summary	Functional and non-functional aspects, technical capabilities, components descriptions and dependencies, Application Programming Interface (API) descriptions, information flow diagrams, internal and external interfaces, software and hardware requirements and testing procedures related data specified and validated among the ENVISION technical and business cases partners. Technical requirement reports will be created in order to describe the aforementioned procedures and requirements for all the business cases. These reports will be the basis upon which the system will be developed and further modified.
Making data findable, including provisions for metadata	The reports will be stored in DRXS server and will not be directly accessible from outside. However, these data will be both discoverable and accessible to the public through the D4.2 Architecture and Services Specifications report, since its level of dissemination is public. The deliverable will be accessible via the project's website, dropbox folder and Zenodo. The naming convention used will be: • Data_WP4_1_System_architecture. As part of any stored data, metadata will be generated, which include sufficient information with appropriate keywords to help external and internal users to locate data.
Making data openly accessible	All data will be made publicly available as part of the D4.1 Architecture and Services Specifications report.
Making data interoperable	N/A
Increase data re-use	Data will be made publicly available as part of the D4.1 Architecture and Services Specifications report and be re-used by third parties indefinitely without a license.
Allocation of resources	Resources will be allocated according to the project plan and WP4 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The data will be collected and stored for internal use in the project and not intended for long-term preservation. Furthermore, DRXS pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

DMP Component	Deliverable Title
Data Summary	Various data, like farm information, shapefiles containing farm location will be generated via the platform. All of these data will be useful in order the ENVISION services and products to function properly and provide accurate information. These data will be saved in the ENVISION central database.
	All user actions (login, logout, visits on specific parts of the platform, visualization of maps, etc.) will be logged and kept in the form of text file. This log will be useful for debugging purposes.
	Reports containing information on user devices (which browsers and mobile phones) as well as number of mobile downloads (taken from play store for android downloads and app store for mac downloads) are useful for marketing and exploitation purposes, as well as decisions regarding the supported browsers and operating systems.
	Furthermore, files will be exported and only the registered users will have access to them.
Making data findable, including provisions for metadata	The data will not be directly accessible from outside. These data will be available, discoverable and accessible to third parties, since the dissemination level of the respective deliverables D4.2 Initial version of ENVISION platform, D4.3 Integrated and validated version of the ENVISION platform and D4.4 Final version of ENVISION platform is public.
	The naming convention used will be:
	• Data_WP4_2_ENVISION_platform
	Every action on the platform will produce meaningful metadata such as time and date of data creation or data amendments and will be saved along the services results to enhance the discoverability of the results.
	The database will not be discoverable to other network machines operating on the same LAN, VLAN with the database server or other networks. Therefore, only users with access to the server (ENVISION technical team members) will be able to discover the database.
Making data openly accessible	Only registered users and administrators will have access to the data. The data produced by the platform are personal data and will not be shared with others without user's permission. No open data will be created as part of ENVISION. The database will only be accessible by the authorised technical team.
Making data interoperable	N/A
Increase data re-use	ENVISION will be integrated with third parties' applications, currently being used by PAs and/ or CBs, in order to re-use information already inserted in those systems and to import the results of the ENVISION services into their own systems.
	The raw data will not be publicly available.
Allocation of resources	Resources will be allocated according to the project plan and

DMP Component	Deliverable Title
	WP4 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	All platform generated data will be saved on the ENVISION database server. Encryption will be used to protect personal user data like emails and passwords. All data will be transferred via SSL connections to ensure secure exchange of information.
	If there is need for updates, the old data will be overwritten and all actions will be audited in detail and a log will be kept, containing the changed text for security reasons. The system will be weekly backed up and the backups will be kept for 3 days. All backups will be hosted on a remote server to avoid disaster scenarios.
	All servers will be hosted behind firewalls inspecting all incoming requests against known vulnerabilities such as SQL injection, cookie tampering and cross-site scripting. Finally, IP restriction will enforce the secure of data.
	The ENVISION platform will not keep personal data and other information after the end of the project.
	Furthermore, DRXS pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.4.3   Maps produced by the EO data

DMP Component	Deliverable Title
Data Summary	One of the main offerings of the ENVISION platform is the generation of maps, based on the produced EO services, that can assist the PAs and CBs to increase their efficiency.
	Specifically, layers will be presented on the top of the maps depicting the outcomes of the remote sensing as well as layers from other resources (Natura sites, etc.).
	The types of the maps might differ but some indicative types for vectors are ESRI, shapefiles, GeoJSON, GML, etc. and for raster is GeoTiff. Similarly, the size might also vary a lot, from 1KB to 10GB.
Making data findable, including provisions for metadata	All the registered users will have access to the maps. The users will be able to identify the maps by their distinctive name.
	Meaningful metadata will be produces as a result of every action (time and date of data creation or data amendments, actions that took place, service that produced map, crop type of depicted farm).
	The naming convention used will be: • Data_WP4_3_Maps
Making data openly accessible	Maps that will be produced will not be openly accessible.

	Users should sign in in order to access the produced maps. The maps and the metadata will be made available for use by the ENVISION system through the secure API that will be created. The raw data, used for the generation of the maps' layers, that will be stored in the ENVISION database will be only accessible by the authorised technical team.
Making data interoperable	Maps will be saved in standard formats that are commonly used through OGC services.
Increase data re-use	Maps that will be produced during the project will be offered to anyone who requests them. After the completion of the project, these data will only be available to users who will buy the respective services.
Allocation of resources	Resources will be allocated according to the project plan and WP4 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	All data generated by the platform will be saved on the ENVISION server. DRXS pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.5 DMP Components in WP5 – Business cases implementation and evaluation (EV ILVO)

DMP Component	Deliverable Title
Data Summary	The purpose of the WP5 is to identify all the needs for the business cases implementation, to define the specifications of each case and to perform the business cases testing. Furthermore, the WP5 data will serve to improve and further validate the services and delivery of the final ENVISION platform. Mainly and if it is possible, it will be used online and/or electronic archives. The main documents and formats that will be used in order to collect and generate the necessary data will be templates agreed in the D5.1 Implementation Guidelines. Semi-structured interviews with participants will be collected and stored using digital recording, only if it is allowed by the interviewees. In case of denial, interview notes will be kept with regards to agreed formats and standards. All data will be in doc./ docx. and pdf format. These data collection will be only used for the evaluation of the ENVISION services/ products and the definition of potential recommendations for the ENVISION platform improvements.
Making data findable, including provisions for metadata	The raw data collected in WP5 will not be made publicly available as it might include confidential and personal data. However, the results derived from these data process will be made publicly available since the dissemination level of the respective deliverables is public. The naming conventions used will be: • Data_WP5_1_Implementation • Data_WP5_2_Evaluation As part of any stored data, metadata will be generated, which will include sufficient information: • to link it to the research publications/ outputs • to identify the further discipline of the research, and • with appropriate keywords to help external and internal users to locate data.
Making data openly accessible	All raw data collected in WP5 will be for internal use within the project consortium. As these data might contain personal data, the databases will not be publicly available. The data will be stored on EV ILVO servers.
Making data interoperable	N/A
Increase data re-use	The data of WP5 will be collected and generated and all specifications and periods of use and re-use will be established in D5.1 Implementation guidelines and D5.2 Business cases action plan. However, the data that will be collected and processed during this WP will be exclusively for analytical and statistical purposes and will not be re-used
Allocation of resources	Resources will be allocated according to the project plan and

	WP5 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	The data will be collected for internal use in the project and not intended for long-term preservation. The data will be stored on EV ILVO servers. EV ILVO pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	A Privacy Policy document will be prepared specifying the main purpose of the data collected and/ or generated within WP5 and how these data will be treated and by whom.
Other issues	N/A

3.6 DMP Components in WP6 – Commercialisation and exploitation (ETAM)

DMP Component	Deliverable Title
Data Summary	The purpose of the data collection in WP6 is to support commercialization and exploitation of the ENVISION products and platform, to define the business models for sustainable growth and to satisfy the needs for the collaboration with other EU projects. The data that will be collected and/ or generated within WP6 will represent the foreground knowledge, derived from the experienced based on the project implementation and the intangible data and results of the project, such as: business modeling information, outcomes, know-how, etc. The expected size of the data is not applicable, as the size is not a meaningful measure.
Making data findable, including provisions for metadata	The data with regards to the Business models will be stored on ETAM servers and will not be directly accessible from outside. Moreover, these data will be neither available to third parties nor discoverable and accessible to the public, since the dissemination level of the respective deliverables is confidential. Similarly, the data with regards to business plan and exploitation strategy. The naming conventions used will be: • Data_WP6_1_Business_Plan • Data_WP6_2_Business_Models • Data_WP6_3_Exploitation Regarding the data generated/ collected for the collaboration with EU projects and initiatives, the roadmap for the incorporation of EO-based monitoring in environmental assurance standards as well as for the incorporation of ENVISION in LEAF Marque will be publicly available since the dissemination level of the respective deliverables is public and they will be accessible either through the project's website or Zenodo. The naming convention used will be: • Data_WP5_4_Collaboration_with_EU_projects • Data_WP5_5_Roadmap • Data_WP6_LEAF_Marque
Making data openly accessible	Data will be publicly available as part of public deliverables and through the ENVISION website, dropbox folder and Zenodo. The other datasets will not be publicly available.
Making data interoperable	N/A
Increase data re-use	Data that will be publicly available through public deliverables will be accessed and re-used by third parties indefinitely without a license.
Allocation of resources	Resources will be allocated according to the project plan and WP6 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	ETAM has established and is successfully implementing an

	information security management system (ISMS) in accordance with the requirements of the international standard ISO/IEC 27001:2013. Information security policies (including access control, secure storage and recovery) and an information security risk assessment process are in place. Furthermore, ETAM respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

3.7 DMP Components in WP7 – Dissemination and Communication (ITC)

DMP Component	Deliverable Title
Data Summary	The aim of the data collected and/ or generated within WP7 is to develop and implement an effective dissemination and communication strategy. The data that will be collected will be statistics related to the project website, social media like LinkedIn, twitter, etc. for tracking the progress and improve the communication and dissemination activities. Reports will be collected from the partners regarding their performed dissemination activities. Furthermore, personal data of newsletter subscribers will be collected (i.e. emails) and contact data of relevant project stakeholders. The expected size of the data is not applicable, as the size is not a meaningful measure. The data will be only available to the project partners.
Making data findable, including provisions for metadata	The data with regards to the dissemination and communication strategy and activities will be publicly available and accessible by third parties, since the dissemination level of the respective deliverables is public. These deliverables will be accessible through the project's website, dropbox folder and Zenodo: • D7.1 Dissemination and Communication Plan: DOI: https://doi.org/10.5281/zenodo.4564222 The naming convention used will be: • Data_WP7_1_Activities Regarding the personal data derived from newsletters or other sources, they will not be publicly available and only project partners will have access to them after request to the responsible controller. The naming convention used will be: • Data_WP7_2_Personal_data No metadata will be generated.
Making data openly accessible	The dissemination and communication activity data will be publicly available through the public deliverables and can be accessed and re-used by third parties indefinitely without any restrictions.
Making data interoperable	N/A
Increase data re-use	The dissemination and communication activity data will be publicly available through the public deliverables and can be accessed and re-used by third parties indefinitely without any restrictions.
Allocation of resources	Resources will be allocated according to the project plan and WP7 allocated resources. No additional costs are foreseen for making this dataset FAIR.
Data security	All data will be stored on ITC servers. Furthermore, ITC pays special attention to security and respects the privacy and confidentiality of the users' personal data by fully complying with the applicable national, European and international

	framework, and the European Union's GDPR 2016/679.
Ethical aspects	N/A
Other issues	N/A

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