



GIS-Based Infrastructure Management System for Optimized Response  
to Extreme Events of Terrestrial Transport Networks



# **Data Management Plan (DMP) V1 (D1.3)**

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**PUBLIC**



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# SAFEWAY

## GIS-BASED INFRASTRUCTURE MANAGEMENT SYSTEM FOR OPTIMIZED RESPONSE TO EXTREME EVENTS OF TERRESTRIAL TRANSPORT NETWORKS

**Grant Agreement No. 769255**

### **Data Management Plan (DMP) V1**

WP 1

Overall Project Coordination

<b>Deliverable ID</b>	<b>D1.3</b>
<b>Deliverable name</b>	<b>Data Management Plan (DMP) V1</b>
Lead partner	<b>UVIGO</b>
Contributors	DEMO, PNK, UMINHO, IMC

**PUBLIC**

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## SAFEWAY Project Synopsis



According to European TEN-T guidelines, due consideration must be given to the risk assessments and adaptation measures during infrastructure planning, in order to improve resilience to disasters. SAFEWAY's aim is to design, validate and implement holistic methods, strategies, tools and technical interventions to significantly increase the resilience of inland transport infrastructure. SAFEWAY leads to significantly improved resilience of transport infrastructures, developing a holistic toolset with transversal application to anticipate and mitigate the effects extreme events at all modes of disaster cycle:

1. **"Preparation"**: substantial improvement of risk prediction, monitoring and decision tools contributing to anticipate, prevent and prepare critical assets for the damage impacts;
2. **"Response and Recovery"**: the incorporation of SAFEWAY IT solutions into emergency plans, and real-time optimal communication with operators and end users (via crowdsourcing and social media);
3. **"Mitigation"**: improving precision in the adoption of mitigation actions (by impact analysis of different scenarios) together with new construction systems and materials, contributing to the resistance & absorption of the damage impact.

SAFEWAY consortium has 15 partners that cover multidisciplinary and multi-sectorial business fields associated with resilience of transport infrastructure in Europe: national transport infrastructure managers & operators, a main global infrastructure operator, partners able to provide various data sources with large coverage in real time, comprehensive ITC solutions, and leading experts in resilience, risk databases, remote sensing-based inspection, and decision systems based on predictive modelling.

SAFEWAY will carry-out 4 real case studies distributed through 4 countries, linked to 5 corridors of the TEN-T Core Network. SAFEWAY has as main expected impacts:

1. at least 20% improvement in mobility; and
2. at least 20% lower cost of infrastructure maintenance.

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## Executive Summary

This document describes the Data Management Plan (DMP) for the SAFEWAY project. The DMP provides an analysis of the main elements of the data management policy that will be used throughout the SAFEWAY project by the project partners, with regard to all the datasets that will be generated by the project. The documentation of this plan is a precursor to the WP1 Management. The format of the plan follows the Horizon 2020 template “Guidelines on Data Management in Horizon 2020”<sup>1</sup>.

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<sup>1</sup> [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-datamgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-datamgt_en.pdf)

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## Glossary of Terms

DMP	Data Management Plan
E&BP	Exploitation and Business Plan
GDPR	General Data Protection Regulation
GFS	Global Forecast System
GIS	Geographic Information System
IMS	Information Management System
INEA	Innovation and Networks Executive Agency
IPMA	Instituto Português do Mar e da Atmosfera
IPR	Intellectual Property Rights
MMS	Mobile Mapping System
WP	Work Package



## 1. Introduction

The elaboration of the Data Management Plan (DMP) will allow SAFEWAY partners to address all issues related with data management.

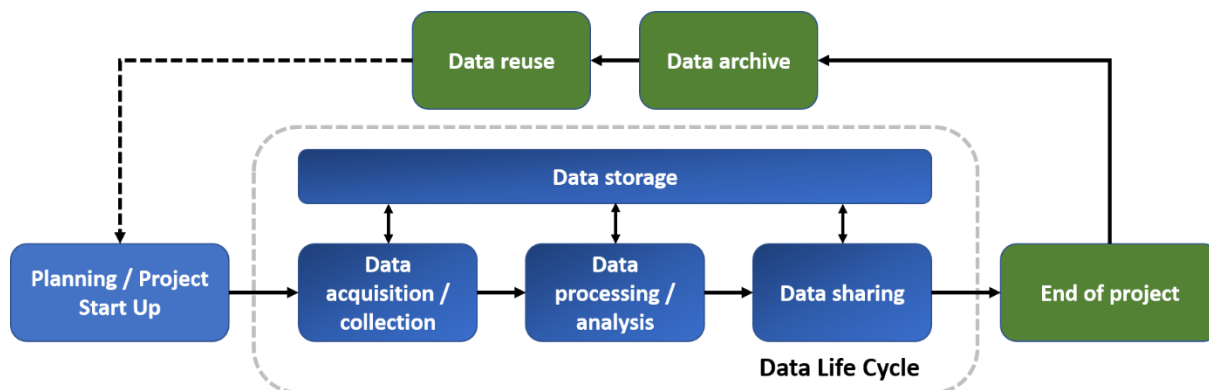
Due to the importance of research data in the support of the publications, it is necessary to define a data management policy. This document introduces the first version of the project Data Management Plan where the different datasets that will be produced within SAFEWAY project are identified. The document also includes the main exploitation perspectives for each of those datasets and major management principles the project will implement to handle those datasets.

Although the DMP is a Deliverable to be submitted in Month 6 (D.1.3), this is also a live document throughout the life of the project. This initial version will evolve during the project according to the progress of project activities.

**Table 1:** Planned calendar for submission of the DMP and its updates

Deliverable Number	Deliverable Title	Due date
D1.3	Data Management Plan (DMP) V1	M6
D1.5	Data Management Plan (DMP) V2	M18
D1.7	Data Management Plan (DMP) V3	M30
D1.9	Data Management Plan (DMP) V4	M42

The DMP will cover the complete data life cycle as shown in Figure 1.



**Figure 1.** Data life cycle

## 2. General Principles

### 2.1 Pilot on Open Research Data

The SAFEWAY Project is fully aware of the open access to scientific publications article (Article 29.2 of the H2020 Grant Agreement), as well as to the open access to research data article (Article 29.3 of the H2020 Grant Agreement). However, project partners have opted to be out of the Open Research Data due to a possible conflict with protecting results; SAFEWAY results will be close to market and results' disclosures should be taken with care and always considering exploitation/commercialization possibilities.

### 2.2 IPR management and security

The SAFEWAY project strategy for knowledge management and protection considers a complete range of elements leading to the optimal visibility of the project and its results, increasing the likelihood of market uptake of the provided solution and ensuring a smooth handling of the individual intellectual property rights of the involved partners in view or paving the way to knowledge transfer:

IPR protection and IPR strategy activities will be managed by Laura TORDERA from FERROVIAL (leader of WP10) as Innovation and Exploitation Manager with the support of the H2020 IPR Helpdesk. The overall IPR strategy of the project is to ensure that partners are free to benefit from their complementarities and to fully exploit their market position. Hence, the project has a policy of patenting where possible. An IPR Plan will be included in the Exploitation & Business Plans (D10.4).

Regarding Background IP (tangible and intangible input held by each partner prior to the project needed to the execution of the project and/or exploiting the results) it will be detailed in the Consortium Agreement, defining any royalty payments necessary for access to this IP. Regarding Foreground IP (results generated under the project) they will belong to the partner who has generated them. Each partner will take appropriate measures to properly manage ownership issues. When several beneficiaries had jointly carried out generating results and where their respective share of work cannot be ascertained, they will have joint ownership of such results. They will establish an agreement regarding the allocation of terms of exercising the joint ownership, including definition of the conditions for granting licenses to third parties.

### 2.3 Allocation of resources

The Project Technical Committee (PTC) will be responsible of collecting the knowledge generated and defining protection strategy and the necessary access rights for results exploitation, as well as propose fair solutions to any possible conflict related to IPR. Complementarily, the PTC through the Exploitation & Innovation Manager (E&IM) will keep a permanent surveillance activity on the blocking IP or new IP generated elsewhere in the EU landscape to ensure SAFEWAY freedom to operate. The output of this activity will be included in the Exploitation and Business Plan (E&BP), which will be updated during the project time frame.

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## 2.4 Personal data protection

For some of the activities to be carried out by the project, it may be necessary to collect basic personal data (e.g. full name, contact details, background), even though the project will avoid collecting such data unless deemed necessary.

Such data will be protected in compliance with the EU's General Data Protection Regulation, Regulation (EU) 2016/679. National legislations applicable to the project will also be strictly followed.

All data collected by the project will be done after giving data subjects full details on the experiments to be conducted, and after obtaining signed informed consent forms. Such forms, provided in the previous deliverable D11.2 POPD – Requirement No 2, are included in Appendix 1 of this document. Additionally, the overall information about procedures for data collection, processing, storage, retention and destruction were also provided in D11.2, which are annexed to the present DMP in Appendix 2.

## 2.5 Data security

SAFEWAY shall take the following technical and organizational security measures to protect personal data:

1. Organizational management and dedicated staff responsible for the development, implementation, and maintenance of SAFEWAY's information security program.
2. Audit and risk assessment procedures for the purposes of periodic review, monitoring and maintaining compliance with SAFEWAY policies and procedures, and reporting the condition of its information security and compliance to senior internal management.
3. Maintain Information security policies and make sure that policies and measures are regularly reviewed and where necessary, improve them.
4. Password controls designed to manage and control password strength, and usage including prohibiting users from sharing passwords.
5. Security and communication protocols, following Big Data analytics, will be developed as required. SAFEWAY solutions will anticipate security not only technically, but also regarding Data Protection Regulation 2016/679 changes in the Data Protection Regime as of May 2018.
6. SAFEWAY solutions will not centralise all the native data in a common database, but instead will retrieve data with values for the platform functionalities on demand. The services layer of the platform includes communication application proceeding information disclosure.
7. Operational procedures and controls to provide for configuration, monitoring, and maintenance of technology and information systems according to prescribed internal and adopted industry standards, including secure disposal of systems and media to render all information or data contained therein as undecipherable or unrecoverable prior to final disposal.
8. Change management procedures and tracking mechanisms designed to test, approve and monitor all changes to SAFEWAY technology and information assets.

9. Incident management procedures designed to investigate, respond to, mitigate and notify of events related to SAFEWAY technology and information assets.
10. Vulnerability assessment, patch management, and threat protection technologies and scheduled monitoring procedures designed to identify, assess, mitigate and protect against identified security threats, viruses and other malicious code.
11. Data could wherever be processed in anonymised or pseudonymised form.
12. Data will be processed ONLY if it is really adequate, relevant and limited to what is necessary for the research ('data minimisation principle').
  - a) Personal data will be adequate, relevant and limited to what is necessary in relation to the purposes for which they are processed.
  - b) The minimum amount of personal data necessary to fulfil the purpose of SAFEWAY will be identified.
  - c) No more personal data than necessary for the purpose of SAFEWAY will be achieved and stored.
  - d) Whenever it is necessary to process certain particular information about certain individuals, it will be collected only for those individuals.
  - e) Personal data will not be collected if it could be useful in the future.

These guidelines will be of special application for INNOFACTORY and TØI CENTRE, the two project partners who are more intensive in the use of personal data. In the Deliverable D11.1-Ethics Requirements are annexed the exact treatment of the data made by these two entities.

## 2.6 Ethical aspects

An ethical approach will be adopted and maintained throughout the fieldwork process. The Ethics Mentor will assure that the EU standards regarding ethics and Data Management are fulfilled. Each partner will proceed with the survey according to the provisions of the national legislation that are adjusted according to the respective EU Directives for Data Management and ethics.

The consortium will ensure the participants' right to privacy and confidentiality of data in the surveys, by providing participants to the survey with the Informed Consent Procedures:

- for those participating in the surveys being carried out within Task 4.3, by the Institute of Transport Economics-Norwegian Center for Transport Research

These documents will be sent electronically and will provide information about how the answers will be used and what is the purpose of the survey. Participants will be assured that their answers, or personal data, will be used only for the purposes of the specific survey. The voluntary character of participation will be stated explicitly in the Consent Form.

As it is established in Deliverable D11.3, an Ethics Mentor is appointed to advise the project participants on ethics issues relevant to protection of personal data.

The Ethics Mentor will advise and supervise the following aspects of the Project:

- 
- Data protection by design and default. The Project will require data control to implement appropriate technical and organisational measures to give effect to the GDPR's core data-protection principles.
  - Informed consent to data processing. Whenever any personal data is collected directly from research participants, their informed consent will be sought by means of a procedure that meets the standards of the GDPR.
  - Use of previously collected data ('secondary use'). If personal data is processed in the Project without the express consent of the data subjects, it will be explained how those data are obtained, and their use in the Project will be justified.
  - Data protection impact assessments (DPIA). If the Project involves operations likely to result in a high risk to the rights and freedoms of natural persons, this document will be conducted.
  - Profiling, tracking, surveillance, automated decision-making and big data. If the Project involves these techniques, a detailed analysis will be provided of the ethics issues raised by this methodology. It will comprise an overview of all planned data collection and processing operations; identification and analysis of the ethics issues that these raise, and an explanation of how these issues will be addressed to mitigate them in practice.
  - Data security. Both ethical and legal measures will be conducted to ensure that participants' information is properly protected. These may include the pseudonymisation and encryption of personal data, as well as policies and procedures to ensure the confidentiality, integrity, availability and resilience of processing systems.
  - Deletion and archiving of data. Finally, the collected personal data will be kept only as long as it is necessary for the purposes for which they were collected, or in accordance with the established auditing, archiving or retention provisions for the Project. These must be explained to your research participants in accordance with informed consent procedures.

### 3. Data Set Description

SAFEWAY is committed to adopt whenever possible the FAIR principles for research data; this is, data should be findable, accessible, interoperable and re-usable.

SAFEWAY partners have identified the datasets that will be produced during the different phases of the project. The list is provided below, while the nature and details for each dataset are given in Section 4.

This list is indicative and allows estimating the data that SAFEWAY will produce – it may be adapted (addition/removal of datasets) in the next versions of the DMP to take into consideration the project developments.

**Table 2:** SAFEWAY Dataset overview

No	Dataset name	Responsible partner	Related Task
1	Mobile Mapping System (MMS) data	UVIGO	T3.2
2	Historic weather dataset	UVIGO	T3.1 & T3.3
3	Global Forecasting System (GFS) data	UVIGO	T3.1 & T3.3
4	Satellite data	PNK	T3.2
5	Experts interviews	TØI	T4.3
6	Data on risk tolerance	TØI	T4.3
7	Sociotechnical system analysis	TØI	T4.3
8	Infrastructure assets data	UMINHO	T5.1
9	Information on the value system	IMC	T6.1
10	Stakeholder contacts collection	UVIGO	WP10
11	Workshops data	FERROVIAL	T10.3

**Table 3:** Datasets description and purpose

No	Dataset name	Description	Purpose
1	MMS data	Data from the different sensors equipped in the Mobile Mapping System (MMS) employed for the monitoring of the infrastructures, including data from some or all the following sources: LiDAR sensors, RGB cameras, thermographic cameras, and Ground Penetrating Radar.	Inspection of the infrastructure critical assets to quantify condition. From this data, the input information for predictive models (WP5) and SAFEWAY IMS (WP7) will be extracted.
2	Historic weather dataset	Observational quantitative meteorological data measured with hourly (or less) temporal frequency over the Instituto Português do Mar e da Atmosfera (IPMA) weather stations network. Relevant variables are air temperature, atmospheric pressure, wind speed and direction, maximum wind gusts speed and direction, relative air humidity, instant rain and solar radiation.	Main source of observational info for meteorological data interpolation and short-term prediction systems. Base dataset for meteorological activities on WP3.
3	Global Forecast System (GFS) data	Predictive quantitative meteorological data calculated with hourly temporal frequency over a planetary-wide ~11 km horizontal spatial resolution by the National Oceanic and Atmospheric Administration Global Forecast System (GFS) numerical model. Relevant variables are those most analogous to the Historic weather dataset ones.	Complementary source of observational info for meteorological data interpolation and short-term prediction systems. Used on the same way than the Historic weather dataset.
4	Satellite data	Sentinel-1 satellite imagery from Copernicus Open Access Hub, to optimize the Rethicus® displacement	Geospatial information acquired from satellite are key to detect and



No	Dataset name	Description	Purpose
		service based on MTInSAR algorithms.	quantify terrain displacement and deformation (e.g. landslides, subsidence, etc.)
5	Experts interviews	The data contain transcriptions and notes from expert interviews with researchers and policy makers. They will be either conducted personally, on the phone (or skype) or they can also be conducted in written form. Include findings from completed/ongoing EU projects	The aim is to identify and collect sources of knowledge on how the different users think/act in extreme situations, as well as their level of preparedness and risk tolerance, and identify case studies for analysis of risk tolerance
6	Data on risk tolerance	This includes the evaluation of risk tolerance of different actors and scheduling for use in focus groups, and follow-up surveys with different user representatives.	To make findings on varying levels of risk tolerance and preparedness for a range of short- and long-term extreme events, among the user groups
7	Sociotechnical system analysis	Selected cases will be documented to represent a range of event types occurring in Europe. Interviews and template analysis will be conducted with people both managing and caught up in the extreme events studied.	These analyses along with established sociotechnical system principles will inform on optimal social and technical arrangements for IMS.
8	Infrastructure assets data	Database of infrastructures with identification, conservation state, inspections and structural detailing	Databased needed to define the input data to the development of predictive models.
9	Information on the value system	The information on the value systems, decision making processes and key performance indicators that	The monetized direct and indirect consequences of inadequate



No	Dataset name	Description	Purpose
		transportation infrastructure agencies and stakeholders within the project use in management of their assets.	infrastructure performance is needed as input to develop the value system that will allow to prioritize the intervention of stakeholders related to transport infrastructure.
10	Stakeholder contacts collection	The data contain information on the main stakeholders of SAFEWAY along the major stakeholder groups. They include infrastructure managers, operators, public administrations, researchers, practitioners, policy makers. The contact information that is collected includes the name, institutional affiliation, position, email address, phone number and office address.	The collection will be used for contacting the respondents for the validation of the project outcomes. It also provides the basis for the dissemination of the project and for promoting the SAFEWAY IT solutions.
11	Workshops data	The data contain protocols, written notes and summaries that were done at the three workshops, which are organized in different countries. The workshops aim at developers and providers of technical solutions.  This dataset also includes the collection of contact information of attendees that includes the name, institutional affiliation, position, email address, phone number and office address.	The information gathered at the workshops will support the development of the SAFEWAY methodologies and tools.

## 4. SAFEWAY Datasets

### 4.1 Dataset No 1: MMS data

Mobile Mapping System (MMS) data	
<b>Data identification</b>	
Dataset description	This dataset comprises all the data collected by the mapping technologies proposed by UVIGO in WP3. Therefore, it contains data from the different sensors equipped in the Mobile Mapping System (MMS) employed for the monitoring of the infrastructures, including data from some or all the following sources: LiDAR sensors, RGB cameras, thermographic cameras, and Ground Penetrating Radar. Data from different LiDAR sensors (Terrestrial or Aerial) that may be employed for the fulfilment of the different monitoring tasks will be comprised in this dataset as well.
Source	Sensor data gathered from the Mobile Mapping System (MMS) owned by UVIGO.
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	UVIGO; N/A
Partner in charge of the data collection	UVIGO
Partner in charge of the data analysis	UVIGO
Partner in charge of the data storage	UVIGO
Related WP(s) and task(s)	WP3: -Task 3.1 (Data acquisition). -Task 3.2 (Data pre-processing). -Task 3.3 (Data processing and automation of monitoring)
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Point cloud data from LiDAR sensors will be produced in real time when the monitoring of the infrastructures is carried out. The metadata of that information, stored in '.las' format, has its documentation in <a href="http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf">http://www.asprs.org/wp-content/uploads/2019/03/LAS_1_4_r14.pdf</a>

<b>Mobile Mapping System (MMS) data</b>	
	Imagery will be produced together with the point cloud data, and the metadata will have the specifications of the correspondent image file format.
Standards, format, estimated volume of data	<p>Data recorded from the different sensors of the MMS dataset will be stored in standard formats:</p> <ul style="list-style-type: none"> <li>- Point cloud data obtained from the LiDAR sensors will be stored either in standard binarized format (.las) or (less likely) as plain text (.txt).</li> <li>- Imagery will be stored in standard image file formats (.jpg, .tiff...)</li> </ul>
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	The recorded data will be used for the monitoring of the infrastructures within the case studies of the project. The raw data acquired by the set of sensors equipped in the monitoring system will be processed to extract meaningful information about the infrastructure that can feed different attributes of the Infrastructure Information Model that is being developed in Task 3.3, and also for three-dimensional visualization of the monitored infrastructure.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Only the partner in charge of the data collection will have access to the raw data of the dataset. The results of the data processing tasks (mainly attribute fields required by the Infrastructure Information Model) will be shared with other members as they will be integrated into the SAFEWAY database. Any relevant three-dimensional visualization of the data could be made public for presenting final results.
Data sharing, re-use, distribution, publication (How?)	Data sharing and re-use at the end of the project will be subjected to the permission of the infrastructure owners. Nevertheless, data will be available for research purposes (development of future data processing algorithms) provided that datasets are fully anonymized in such a way they cannot be associated to real structures.
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	Data collected from this dataset will not intentionally include any personal data. In the event of an identifiable individual within the imagery part of the dataset, these data

<b>Mobile Mapping System (MMS) data</b>	
	will be pre-processed to ensure that it is anonymised or pseudonymised.
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation, and will be retained five years after the project ends.

#### 4.2 Dataset No 2: Historic weather dataset

<b>Historic weather dataset</b>	
<b>Data identification</b>	
Dataset description	IPMA's Portugal Weather Dataset.
Source	Instituto Português do Mar e da Atmosfera. Web: <a href="http://www.ipma.pt/pt/index.html">http://www.ipma.pt/pt/index.html</a>
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	IPMA.
Partner in charge of the data collection	IP.
Partner in charge of the data analysis	UVIGO.
Partner in charge of the data storage	UVIGO.
Related WP(s) and task(s)	WP3, tasks 3.1, 3.3.
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Observation weather data is continuously generated by the automated meteorological stations belonging to the

<b>Historic weather dataset</b>	
	IPMA's network with a 1 hour (or 10 minutes) frequency. IPMA will provide a subset of such data, limited to the requested variables, for the considered stations and timespan.
Standards, format, estimated volume of data	JSON, XML or SQL formats for storing meteorological data. Hour-interval numeric values for each of the 9 required meteorological variables (air temperature, atmospheric pressure, wind speed and direction, maximum wind gusts speed and direction, relative air humidity, instant rain and solar radiation), for each of the provided observation weather stations (number between 30 and 100), during the Portuguese meteorological case study time lapse.
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Input for interpolation and short-term prediction algorithms used in WP3.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential.
Data sharing, re-use, distribution, publication (How?)	Collected data will potentially be used in future scientific research papers.
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	No personal data.
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be permanently stored in UVIGO computer facilities for the duration of the SAFEWAY project.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data will be stored indefinitely, with no planned destruction.

### 4.3 Dataset No 3: GFS data

Global Forecast System (GFS) data	
<b>Data identification</b>	
Dataset description	GFS Portugal Weather Dataset.
Source	National Oceanic and Atmospheric Administration's Global Forecast System weather forecast model. Web: <a href="https://www.ncdc.noaa.gov/data-access/model-data/model-datasets/global-forecast-system-gfs">https://www.ncdc.noaa.gov/data-access/model-data/model-datasets/global-forecast-system-gfs</a>
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	NOAA.
Partner in charge of the data collection	UVIGO.
Partner in charge of the data analysis	UVIGO.
Partner in charge of the data storage	UVIGO.
Related WP(s) and task(s)	WP3, tasks 3.1, 3.3.
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Forecast weather data is generated during the 4 cycle daily executions of the GFS model, with an hourly temporal resolution, for a global grid with ~11 km horizontal spatial resolution. UVIGO will gather a subset of such data, limited to the requested variables, for the considered geographic area and timespan.
Standards, format, estimated volume of data	SQL formats for storing meteorological data. Hour-interval numeric values for each of the 9 required meteorological variables (air temperature, atmospheric pressure, wind speed and direction, maximum wind gusts speed and direction, relative air humidity, instant rain and solar radiation), for each of the considered grid points (number 1000-2000) during the Portuguese meteorological case study time lapse.
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Input for interpolation and short-term prediction algorithms used in WP3.

Global Forecast System (GFS) data	
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential.
Data sharing, re-use, distribution, publication (How?)	Collected data will potentially be used in future scientific research papers.
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	No personal data.
Archiving and preservation (including storage and backup)	
Data storage (including backup): Where? For how long?	Data will be permanently stored in UVIGO computer facilities for the duration of the SAFEWAY project.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data will be stored indefinitely, with no planned destruction.

#### 4.4 Dataset No 4: Satellite data

Satellite data	
Data identification	
Dataset description	Sentinel-1 images
Source	Copernicus Open Access Hub
Partners activities and responsibilities	
Partner owner of the data; copyright holder (if applicable)	Any <b>Sentinel data</b> available through the Sentinel Data Hub will be governed by the Legal Notice on the use of Copernicus Sentinel Data and Service Information.
Partner in charge of the data collection	Planetek Italia
Partner in charge of the data analysis	Planetek Italia
Partner in charge of the data storage	Planetek Italia
Related WP(s) and task(s)	WP3 – Displacement monitoring of infrastructures (roads and railways)

<b>Satellite data</b>	
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	The metadata information are stored within a product.xml file
Standards, format, estimated volume of data	OGC standard format. Volume: about TB.
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	The Sentinel-1 images will be exploited using the Multi-Temporal Interferometry algorithm through the Rheticus® platform.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential
Data sharing, re-use, distribution, publication (How?)	Access through the Rheticus ® platform protected by Username and Password.
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	No personal data
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	The data will be stored within the cloud service platform Rheticus® owned by Planetek Italia for the entire duration of the project.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	The data will be deleted in the cloud platform Rheticus® five years after the end of the project.



## 4.5 Dataset No 5: Experts interviews

<b>EXPERTS INTERVIEWS</b>	
<b>Data identification</b>	
Dataset description	The data contain transcriptions and notes from expert interviews with researchers and policy makers. They will be either conducted personally, on the phone (or skype) or they can also be conducted in written form. Include findings from completed/ongoing EU projects
Source	Interviews with experts
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	N/A
Partner in charge of the data collection	TØI
Partner in charge of the data analysis	TØI
Partner in charge of the data storage	TØI
Related WP(s) and task(s)	WP4 and 6
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Production August 2019, anonymised data stored on secure server
Standards, format, estimated volume of data	Word documents
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Gather state-of-the-art knowledge on risk tolerance, aspects of psychology and behaviour of different user groups.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential
Data sharing, re-use, distribution, publication (How?)	Scientific articles
Embargo periods (if any)	N/A

EXPERTS INTERVIEWS	
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	Will do
Archiving and preservation (including storage and backup)	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

#### 4.6 Dataset No 6: Data on risk tolerance

DATA ON RISK TOLERANCE	
Data identification	
Dataset description	This includes the evaluation of risk tolerance of different actors and scheduling for use in focus groups, and follow-up surveys with different user representatives.
Source	Focus groups and surveys
Partners activities and responsibilities	
Partner owner of the data; copyright holder (if applicable)	TØI
Partner in charge of the data collection	TØI
Partner in charge of the data analysis	TØI
Partner in charge of the data storage	TØI
Related WP(s) and task(s)	WP4, 6

<b>DATA ON RISK TOLERANCE</b>	
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Production circa Jan 2020, anonymised data stored on secure server
Standards, format, estimated volume of data	Word documents
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Gather knowledge on risk tolerance, aspects of psychology and behaviour of different user groups.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential
Data sharing, re-use, distribution, publication (How?)	Scientific articles
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	Will do
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

#### 4.7 Dataset No 7: Sociotechnical system analysis

<b>SOCIOTECHNICAL SYSTEM ANALYSIS</b>	
<b>Data identification</b>	
Dataset description	Selected cases will be documented to represent a range of event types occurring in Europe. Interviews and template analysis will be conducted with people both managing and caught up in the extreme events studied.
Source	Document analyses
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	TØI
Partner in charge of the data collection	TØI
Partner in charge of the data analysis	TØI
Partner in charge of the data storage	TØI
Related WP(s) and task(s)	WP4 and 6
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	Production circa June 2020, anonymised data stored on secure server
Standards, format, estimated volume of data	Word documents
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Gather knowledge on risk tolerance, aspects of psychology and behaviour of different user groups.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential
Data sharing, re-use, distribution, publication (How?)	Scientific articles, report
Embargo periods (if any)	N/A

<b>SOCIOTECHNICAL SYSTEM ANALYSIS</b>	
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	N/A
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

#### 4.8 Dataset No 8: Infrastructure assets data

<b>INFRASTRUCTURE ASSETS DATA</b>	
<b>Data identification</b>	
Dataset description	Database of infrastructures with identification, conservation state, inspections and structural detailing
Source	Infraestruturas de Portugal; Ferrovia; Network Rails
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	Infraestruturas de Portugal; Ferrovia; Network Rails
Partner in charge of the data collection	University of Minho; University of Cambridge; Infrastructure Management Consultants GmbH
Partner in charge of the data analysis	University of Minho; University of Cambridge; Infrastructure Management Consultants GmbH
Partner in charge of the data storage	University of Minho

<b>INFRASTRUCTURE ASSETS DATA</b>	
Related WP(s) and task(s)	WP5 – Task 5.1
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	TBD
Standards, format, estimated volume of data	TBD
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	Development of predictive models for projecting risks of future infrastructure damage, shutdown and deterioration. Based on the database, and analytical and stochastic/probabilistic approaches, the most suitable models for risk and impact projections will be selected.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Confidential
Data sharing, re-use, distribution, publication (How?)	Database is to be used by members of the Consortium and the derived results are to be reviewed by the partner owner of data prior to publication
Embargo periods (if any)	Not applicable.
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	There is no personal data
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be stored in a physical external disk for storage during the duration of the project. A copy will also be accessible on a restricted online server for the partners involved in Task 5.1.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data will be retained five years after the project ends, and will be always destroyed complying with EU and national legislation.

#### 4.9 Dataset No 9: Information on the value systems

INFORMATION ON THE VALUE SYSTEM	
<b>Data identification</b>	
Dataset description	The information on the value systems, decision making processes and key performance indicators that transportation infrastructure agencies and stakeholders within the project use in management of their assets.
Source	On-line survey developed on a freeware software platform.
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	IMC
Partner in charge of the data collection	IMC
Partner in charge of the data analysis	IMC
Partner in charge of the data storage	IMC
Related WP(s) and task(s)	WP6, Task 6.1
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	None.
Standards, format, estimated volume of data	.xls (MS Excel format).
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	The data will be used in WP6 – for development of a robust decision support framework for short and medium to long-term maintenance planning.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	Currently confidential. Perhaps public after the project completion.
Data sharing, re-use, distribution, publication (How?)	See under data access policy.
Embargo periods (if any)	See under data access policy.

INFORMATION ON THE VALUE SYSTEM	
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	Yes, there are. It is planned to include related consent as a part of the survey, so subjects may comply.
Archiving and preservation (including storage and backup)	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

#### 4.10 Dataset No 10: Stakeholders contact collection

STAKEHOLDERS CONTACT COLLECTION	
Data identification	
Dataset description	The data contain information on the main stakeholders of SAFEWAY along the major stakeholder groups. They include infrastructure managers, operators, public administrations, researchers, practitioners, policy makers. The contact information that is collected includes the name, institutional affiliation, position, email address, phone number and office address.
Source	Archives of SAFEWAY partners.
Partners activities and responsibilities	
Partner owner of the data; copyright holder (if applicable)	UVIGO; N/A
Partner in charge of the data collection	UVIGO
Partner in charge of the data analysis	UVIGO



<b>STAKEHOLDERS CONTACT COLLECTION</b>	
Partner in charge of the data storage	UVIGO
Related WP(s) and task(s)	WP10: -Task 10.1 (Dissemination, communication and IP management). -Task 10.2 (Standardization activities) -Task 10.3 (Technology transfer activities) -Task 10.4 (Collaboration and clustering)
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	N/A
Standards, format, estimated volume of data	This dataset can be imported from, and exported to a CSV, TXT or Excel file.
<b>Data exploitation and sharing</b>	
Data exploitation (purpose/use of the data analysis)	This dataset is only used to disseminate the results obtained through SAFEWAY project.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	As this dataset can contain personal data, only the partner in charge of the data collection will have access to the raw data. Data that is publicly available will be share among consortium partners.
Data sharing, re-use, distribution, publication (How?)	None
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	This dataset can include some personal data. Before collecting any personal data that is not publicly available, informed consents from subjects will be gained.
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.  The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the

STAKEHOLDERS CONTACT COLLECTION	
	administrative and financial issues this will be 5 years.
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

#### 4.11 Dataset No 11: Workshop data

STAKEHOLDERS DATA COLLECTION	
<b>Data identification</b>	
Dataset description	The data contain contact information of SAFEWAY workshops attendees, provided during their registration in the event. The contact information that is collected includes the name, institutional affiliation, position, email address, phone number and office address.
Source	Archives of SAFEWAY partners.
<b>Partners activities and responsibilities</b>	
Partner owner of the data; copyright holder (if applicable)	UVIGO; N/A
Partner in charge of the data collection	UVIGO
Partner in charge of the data analysis	UVIGO
Partner in charge of the data storage	UVIGO
Related WP(s) and task(s)	WP10: -Task 10.3 (Technology transfer activities)
<b>Standards</b>	
Info about metadata (production and storage dates, places) and documentation?	N/A
Standards, format, estimated volume of data	This dataset can be imported from, and exported to a CSV, TXT or Excel file.
<b>Data exploitation and sharing</b>	

<b>STAKEHOLDERS DATA COLLECTION</b>	
Data exploitation (purpose/use of the data analysis)	This dataset is only used to disseminate the results obtained through SAFEWAY project.
Data access policy / Dissemination level: confidential (only for members of the Consortium and the Commission Services) or Public	As this dataset can contain personal data, only the partner in charge of the data collection will have access to the raw data. Data that is publicly available will be share among consortium partners.
Data sharing, re-use, distribution, publication (How?)	None
Embargo periods (if any)	N/A
Personal data protection: are there personal data? If so, have you gained (written) consent from data subjects to collect this information?	This dataset can include some personal data. Before collecting any personal data that is not publicly available, informed consents from subjects will be gained.
<b>Archiving and preservation (including storage and backup)</b>	
Data storage (including backup): Where? For how long?	<p>Data will be stored in secured servers of the partner in charge of the dataset, where only research members will be granted access to the information within the dataset.</p> <p>The Consortium will take into account that for the purposes of the SAFEWAY project the retention period is the one used in the relevant field, by analogy to the administrative and financial issues this will be 5 years.</p>
Data destruction. How is data destruction handled? Compliance with EU / national legislation.	Data destruction will always comply with EU and national legislation.

## 5. Outlook Towards Next DMP

As stated in Table 1 of the Introduction, the next iteration of the DMP will be prepared in month 18 of the project, just after WP2 finishes. Also, every working package and their tasks (with the exception of WP9 – demonstrative pilots) will be underway. Several questions that remain unanswered in this DMP will be addressed in future stages of the project as its different activities are carried out. Therefore, the upcoming DMP will provide updates regarding the following topics:

**Table 4:** Planned updated in upcoming DMP versions

Category	Updates in upcoming DMP
Data interoperability	<ul style="list-style-type: none"> <li>- Information regarding data exchange between researchers and organizations.</li> <li>- Standards employed for allowing data exchange.</li> </ul>
Data re-use	<ul style="list-style-type: none"> <li>- Data licensing to permit re-use.</li> <li>- Data availability. Will the data be available for re-use? Will be an embargo to give time to publish or seek patents?</li> <li>- Can the data be used by third parties at the end of the project? Will be any restriction?</li> <li>- How long will the data be re-usable?</li> <li>- Have been (or will be) data quality assurance processes described?</li> </ul>
Data allocation	<ul style="list-style-type: none"> <li>- Where (and how) is existent data being stored? What is its cost and potential value?</li> <li>- Where (and how) will data still not acquired be stored?</li> </ul>
Data security	<ul style="list-style-type: none"> <li>- What procedures have been conducted regarding data security (data recovery, data storage and transference).</li> </ul>
Other aspects	<ul style="list-style-type: none"> <li>- Any other procedure regarding data management which has not been listed.</li> </ul>

## **6. Update of the Ethical Aspects**

At this stage of the project, two are the main ethical aspects to review. In first place the outcome of the continuous monitoring process on ethical aspects, in particular regarding vehicle data crowdsourcing and interviews or surveys carried out during the development of WP4. Then, the report of the Ethics Mentor.

### **6.1 Ongoing monitoring**

The ongoing monitoring regarding SAFEWAY ethical aspects has focused, in a first place, in identifying those tasks with relevance for data protection within the different activities of the project. It was concluded that the data protection risk posed by SAFEWAY is fairly limited, as the only task that might involve personal data collection is related to dissemination activities in workshops and meetings; and an explicit and verifiable consent will be obtained prior to any data collection, as required by the GDPR. Procedures for collection, processing, storage, retention and destruction of data have been defined to ensure its compliance with the legislative framework. Furthermore, for those activities that require it (interviews and surveys) an informed consent form together with an information sheet about the research study were defined (see Appendices).

### **6.2 Report of the Ethics Mentor**

Throughout the duration of the project, the Ethics Mentor will organize the internal monitoring of the implementation of the ethical protocol by the consortium. This section of the Data Management Plan will include a report from the Ethics Mentor to be updated, according to the Grant Agreement-Annex 1b-section 5.1.2, in M18, M30, M42.

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## Acknowledgements

This deliverable was carried out in the framework of the GIS-Based Infrastructure Management System for Optimized Response to Extreme Events of Terrestrial Transport Networks (SAFEWAY) project, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 769255.

# **SAFEWAY**

## **GIS-BASED INFRASTRUCTURE MANAGEMENT SYSTEM FOR OPTIMIZED RESPONSE TO EXTREME EVENTS OF TERRESTRIAL TRANSPORT NETWORKS**

**Grant Agreement No. 769255**

# **Data Management Plan (DMP) V1 - Appendices**

**WP 1**

**Overall project coordination**

<b>Deliverable ID</b>	<b>D1.3</b>
<b>Deliverable name</b>	<b>Data Management Plan (DMP) V1</b>
Lead partner	UVIGO
Contributors	DEMO, PNK, UMINHO, IMC

**PUBLIC**

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## Appendices Contents

- **Appendix 1: Informed Consent Form**
- **Appendix 2: Protection of Personal Data within SAFEWAY**

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## Appendix 1. Informed Consent Form



### GIS-Based Infrastructure Management System for Optimized Response to Extreme Events of Terrestrial Transport Networks

#### INFORMED CONSENT FORM

Project acronym	SAFEWAY
Project name	GIS-BASED INFRASTRUCTURE MANAGEMENT SYSTEM FOR OPTIMIZED RESPONSE TO EXTREME EVENTS OF TERRESTRIAL TRANSPORT NETWORKS
Grant Agreement no.	769255
Project type	Research and Innovation Action
Start date of the project	01/09/2018
Duration in months	42
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 769255.	
Disclaimer: This document reflects only the views of the author(s). Neither the Innovation and Networks Executive Agency (INEA) nor the European Commission is in any way responsible for any use that may be made of the information it contains.	

**SAFEWAY event:**

**Date:**

**Location:**

### General Data Protection Regulation (GDPR) Compliance

Data that is collected and processed for the purposes of facilitating and administering SAFEWAY workshops and events is subjected to GDPR to the EU General Data Protection Regulation (GDPR) which became applicable from the 25th of May 2018. Please see the document "POPD SAFEWAY.pdf" for further guidance on our data management policies. To process your application, we require your consent to the following (please check each box as appropriate).

Please circle as necessary		
I give my consent for all personal information provided by registering to the SAFEWAY ( <i>workshop/event name</i> ) to be stored and processed by relevant SAFEWAY project partners for Data Management Purposes.	<b>Yes</b>	<b>No</b>
I give my consent for all personal information provided by registering to the SAFEWAY ( <i>workshop/event name</i> ) to be stored and processed by SAFEWAY partners for the purpose of administering the SAFEWAY ( <i>workshop/event name</i> ).	<b>Yes</b>	<b>No</b>
I give my consent for all personal information provided by registering to the SAFEWAY ( <i>workshop/event name</i> ) to be processed by the SAFEWAY ( <i>workshop/event name</i> ) organizers to evaluate and decide on my application where workshop places are limited.	<b>Yes</b>	<b>No</b>
I give my consent for all personal information provided by registering to the SAFEWAY ( <i>workshop/event name</i> ) to be stored and processed by UVIGO for the purpose of overall coordination of the SAFEWAY project.	<b>Yes</b>	<b>No</b>
I give my consent for all personal information provided by registering to the SAFEWAY ( <i>workshop/event name</i> ) to be passed to UVIGO and FERROVIAL for storage and processing for the purposes of supporting exploitation and dissemination of workshop related information.	<b>Yes</b>	<b>No</b>
I give my consent for the following personal information to be passed on to the European Commission in case my workshop application is approved: name, surname, title, organization, position, email address, phone number.	<b>Yes</b>	<b>No</b>
I give my consent for the following personal information to be published on the Internet and elsewhere for the purposes of project transparency: name, surname and organisation affiliation.	<b>Yes</b>	<b>No</b>
I give my consent for my e-mail address to be published on the Internet or elsewhere to assist others to contact me (optional).	<b>Yes</b>	<b>No</b>

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### **PARTICIPANT CERTIFICATION**

I have read the *PROTECTION OF PERSONAL DATA WITHIN SAFEWAY* and answered to all the questions on the table above. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the protection of my personal data. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

.....

Name and surname of participant

.....

Place, date and signature of participant

**NB: Attach this completed form to your SAFEWAY (*workshop/event name*) application.**

Further information: for any additional information or clarification please contact SAFEWAY coordinators at UVIGO ([safeway@uvigo.es](mailto:safeway@uvigo.es)). This consent form does not remove any of your rights under GDPR but provides us with the necessary permissions to process your application and manage SAFEWAY workshops and events.

## Appendix 2. Protection of Personal Data Within SAFEWAY



GIS-Based Infrastructure Management System for Optimized Response to Extreme Events of Terrestrial Transport Networks

### PROTECTION OF PERSONAL DATA WITHIN SAFEWAY

Project acronym	SAFEWAY
Project name	GIS-BASED INFRASTRUCTURE MANAGEMENT SYSTEM FOR OPTIMIZED RESPONSE TO EXTREME EVENTS OF TERRESTRIAL TRANSPORT NETWORKS
Grant Agreement no.	769255
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## PROTECTION OF PERSONAL DATA WITHIN SAFEWAY

### **INTRODUCTION**

The SAFEWAY project assumes the responsibility of complying with current legislation on data protection, guaranteeing the protection of personal information in a lawful and transparent manner in accordance with Regulation (EU) 2016/679 of the European Parliament and of the Council of April 27, 2016, regarding the protection of individuals with regard to the processing of personal data and their free circulation (GDPR) and with the national regulations regarding the protection of personal data.

This document informs in detail the circumstances and conditions of the processing of personal data and the rights that assist the interested persons.

As coordinator of the action, the University of Vigo is the data controller for all personal data being collected for workshops and other communication and dissemination events. The University of Vigo has appointed as Data Protection Officer to: Pintos & Salgado Abogados S.C.P. with address at: Avda. de Arteixo, 10, 1.o izq., 15004 A Coruña ([dpd@uvigo.es](mailto:dpd@uvigo.es)).

### **PURPOSE:**

SAFEWAY partners will only collect the personal data strictly necessary in relation to the purposes for which they are treated, in accordance with the principles set in Article 5 of the GDPR. The information necessary to guarantee a fair and transparent treatment will be provided to the interested persons at the moment of collection, in accordance with the provisions of articles 13 and 14 of the GDPR.

The data collected by SAFEWAY for the dissemination activities aims to reach the widest audience to disseminate SAFEWAY project outcomes and to communicate the knowledge gained by its partners during the duration of the project.

The workshops or meetings with stakeholder are focused to present and discuss all project results, not only among project partners but also open to stakeholders and other target groups. The events will be targeted to technology innovators on infrastructure management, including end-users, materials and technology suppliers, the research community, regulatory agency, standardization bodies and all the potential players interested in fields associated to innovative resilience of transport infrastructure with special focus on their application in railway and roads.

### **PROCESSING OF PERSONAL DATA:**

Your Personal Data is freely provided. Where it is specified in the registration form, the provision of Personal Data is necessary to provide you with the services expected from the dissemination event, and the access to SAFEWAY project results. If you refuse to communicate these Data, it may be impossible for the Data Controller to fulfil your request. On the contrary, with reference to Personal Data

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not marked as mandatory, you can refuse to communicate them and this refusal shall not have any consequence for your participation and attendance to SAFEWAY dissemination activities.

The provision of your Personal Data for publication of your contact details on the Internet or elsewhere for networking implemented by the Data Controller is optional, consequently you can freely decide whether or not give your consent, or withdraw it at any time. Therefore, if you decide not to give your consent, SAFEWAY dissemination responsible will not be able to carry out the aforementioned activities.

SAFEWAY will never collect any special categories of Personal Data (personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, genetic data, biometric data, data concerning health or data concerning a natural person's sex life or sexual orientation – Art. 9 of GDPR). SAFEWAY asks you expressly to avoid providing these categories of Data. In the event in which you voluntarily choose to give us these Data, the Company may decide not to process them or to process them only with your specific consent or, in any event, in compliance with the applicable law.

In the event of accidental processing of third party Personal Data is communicated to SAFEWAY, you become an autonomous Data Controller and assume all the related obligations and responsibilities provided by the law. In this regard, SAFEWAY is exempt from any liability arising from any claims or requests made by third parties, whose Data have been processed by us because of your spontaneous communication of them to us, in violation of the law on the protection of Personal Data. In any event, if you provide or process third party Personal Data, you must guarantee as of now, assuming any related responsibility, that this particular hypothesis of processing is based on a legal basis pursuant to Art. 6 of GDPR.

### **DATA STORAGE AND RETENTION:**

The personal data provided will be kept for the time necessary to fulfill the purpose for which they are requested and to determine the possible liabilities that could derive from the same purpose, in addition to the periods established in the regulations on files and documentation. Unless otherwise stated, the data will be retained for a period of five years after the end of the project as this data can support the report of some of the implemented activities.

During this period, the data will be stored in a secured area with access by a limited number of researchers. SAFEWAY data managers will apply appropriate technical and organizational measures to guarantee a level of safety appropriate to the risk and in accordance with the provisions of article 32 of the GDPR. The system also allows tracking of use of data. Five years after the end of the project, the data will

be destructed at the surveillance of the Data Protection Officer at University of Vigo, as coordinating organization of SAFEWAY.

### **RIGHTS OF THE DATA SUBJECT:**

Any person, as the holder of personal data, has the following rights recognized in the terms and under the conditions indicated in articles 15-22 of the GDPR:

- Right of Access: obtain from the controller confirmation as to whether or not personal data concerning you are being processed, more information on the processing and copy of the personal data processed.
- Right to Rectification obtain from the controller, without undue delay, the rectification of inaccurate personal data concerning you and the right to have incomplete personal data completed.
- Right to Erasure: obtain from the controller, without undue delay, the erasure of personal data concerning you.
- Right to Restriction of Processing: obtain the restriction of the processing in the event you assume that your data are incorrect, the processing is illegal or if these data are necessary for the establishment of legal claims.
- Right to Data Portability: receive the personal data concerning you, which you have provided to a controller, in a structured, commonly used and machine-readable format, in order to transfer these data to another Controller.
- Right to Object: Object, on grounds relating to your particular situation, to the processing of personal data concerning you, unless the controller demonstrates compelling legitimate grounds for the processing. You can also object to processing your data where they are processed for direct marketing purposes.
- Right to withdraw the Consent: withdraw the consent at any time. The withdrawal of consent shall not affect the lawfulness of processing based on consent before its withdrawal.

The subject may exercise their rights without any cost and will have the right to receive a response, within the deadlines established by current legislation on data protection, by contacting SAFEWAY project coordinators at: [safeway@uvigo.es](mailto:safeway@uvigo.es), or by contacting the Data Protection Officer at: [dpd@uvigo.es](mailto:dpd@uvigo.es).

### **CONTACT PERSON**

For any additional information or clarification please contact SAFEWAY coordinators at UVIGO ([safeway@uvigo.es](mailto:safeway@uvigo.es)). This consent form does not remove any of your rights under GDPR but provides us with the necessary permissions to process your application and manage SAFEWAY workshops and events.