



SOCLIMPACT

This project has received funding from the European Union's Horizon
2020 research and innovation programme under Grant Agreement
No776661



Work Package 2

Project Coordination and Management

Deliverable 2.1. Data Management Plan





Work Package 2:

Project Coordination and Management

Deliverable 2.1 Data Management Plan

Coordinated by ULPGC with the participation of all Soclimpact partners, according to the quality review internal process.

History of changes			
Version	Date	Change	Page
01	30/07/2018	First draft following example of other projects' reports, and the H2020 templates Data management plan v1.0 – 13.10.2016	all
02	20/08/2018	Clarifications of some issues regarding the new GDPR of the EC	all
03	20/09/2018	Final revision POT	all
04	16/10/2018	Quality revision POT	all
05	25/11/2018	English revision POT	all
06	15/12/2018	Review by WP leaders	all
07	9/01/2019	Submitted to the EC and to the AB members	
08	31/03/2020	Revised upon experts' recommendations	all
09	1/06/2020	A description of the stakeholders' database was added EUGDPR compliance was clarified Appendix added -Consent Form Improve description of databases in table 2 Surveying and data mining of WP5	all
10	20/09/2020	IPR rules and application to the project was added Specifications on exploitation mechanisms	all



Index

1. Introduction.....	4
2. Data summary	5
3. FAIR data	15
3.1 Making data findable, accessible, interoperable and reusable.....	15
3.2 Zenodo tool.....	16
3.3 Making data openly accessible	18
3.4 Personal data and confidentiality.....	19
3.5 Intellectual Property Rights	20
4. Exploitation and dissemination.....	22
5. Other	23
Appendix 1.....	24
PRIVACY POLICY OF SOCLIMPACT PROJECT.....	24

Glossary:

GA	Grant Agreement
CA	Consortium Agreement
WP	Work Packages
EC	European Commission
EU	European Union
IFP	Island Focal Point
DMP	Data Management Plan
GDPR	General Data Protection Regulation
IPR	Intellectual Property Rights



1. Introduction

The Data Management Plan (DMP) is designed to help the project beneficiaries and actors involved, to make the research data findable, accessible, interoperable and reusable. Research data management is a key conduit leading to discovery the knowledge and innovation, and to integrate subsequent data and knowledge for reuse. Also, a DMP helps to comply with the applicable regulations, protect the information processed, respect the privacy of the individuals and companies involved, and foster a culture of compliance that meets the highest ethical standards.

This is a living document which describes the Data Management Plan (DMP) for the Soclimpact project, in order to provide an analysis of the main elements on the data management policy to be used throughout the project. The format of the plan follows the Horizon 2020 template. The first version of the Data management plan v1.0 – was submitted with the project proposal on 13.10.2016. Other three versions were submitted afterwards aiming to follow a continuous process of improvements and quality. Issues related to IPR, GDPR and exploitation are clarified in this final version of the report.

The Project Coordination is responsible for monitoring the compliance with the proposed regulations, keep the DMP updated, and promote actions of prevention, detection and response to possible incidents that may arise, related to the confidentiality of the information and data managed, although it may be delegated to some partners for specific cases.

Although this document is not public, it will be available to all project partners and the European Commission. If the partners have doubts about the degree of confidentiality, the organization, the terms established in this document, they should always consult with the POT team.

This document is to be interpreted with reference to:

- the amended Grant Agreement (GA);
- the Consortium Agreement (CA).

The Data Management Plan only shows the procedures for the creation, storage and exploitation of 'primary data' (data not available from any other sources) and of their management, inside and outside the consortium.

Within Soclimpact, five types of datasets will be created;

- i. from the climate simulation models (WP4),
- iv. from the surveying phase and data mining process (WP5), for the purposes of and from the use of GEM3 and GINFORS models (WP6), integrated adaptation pathways alternatives for Blue Economy sectors, based on stakeholders and experts' opinion (qualitative-WP7)

These datasets will have a similar structure for each of the 12 islands case studies, even if the results generated for some regions might be more detailed than for others.

Finally,



v) a stakeholders' database for communication and dissemination of results will be created and exploited by a CRM software. Next sections are dedicated to outline the characteristics of all databases and the exploitation plan.

2. Data summary

This section describes the type of data that will be collected and analysed within the project, and the primary ones produced by the project, their scale and characteristics, and potential uses.

Table 1. Climate simulations datasets

Aspect	Description
Origin of data	The CMIP, CORDEX, EURO-CORDEX, Med-CORDEX and ESCENA databases <ul style="list-style-type: none"> - Available observations and simulation of present and projected wave characteristics as well as their climatology - 3D and 2D of atmospheric and ocean simulated variables. Satellite observations, ground based observations and buoy data. - 2D surface wind fields and, where available, 2D wave energy spectra.
Data collection procedures	Relevant data produced in the framework of national and international projects and programmes will be reviewed and analysed as to their availability and suitability for the characterization of climate and climate change in the 12 selected islands. Also, the necessity and feasibility of additional numerical simulation will be assessed and the development of an indicators system will be employed in the new simulation.
Dataset description	The project will produce high resolution Climate Change impact runs, ranging from sea-level rise to changes in ocean temperature and salinity. <ul style="list-style-type: none"> - The spatial distribution of flood risk will be assessed as a function of the environmental projections collected or produced within the project and based on available vulnerability maps for the islands of interest. - The spatial distribution of storm surge risk will be assessed as a function of the environmental projections collected or produced within the project and based on available vulnerability maps for the islands of interest. The effects of sea level rise will be included. - Open sea waves, along with sea level changes will be propagated to the beach using X-BEACH model. - Statistical models based on field observations and lab experiments will be used to assess relationships between seagrass mortality and temperature. Datasets will be summarized in the form of commented maps.
Scale	12 EU islands and archipelagos (Canary Islands, Balearics, Azores, Madeira, Corsica, Sicily, Sardinian, Crete, Malta, Cyprus, West Indies and Baltic Islands).



Standards and metadata	<ul style="list-style-type: none"> ▪ 3D and 2D of atmospheric and ocean simulated variables. Satellite observations, ground based observations and buoy data. ▪ 2D atmospheric variables (temperature, 24 h precipitation, relative humidity, wind speed) ▪ Topobathymetric data for the selected beaches. Open sea wave parameters to be propagated to the beach. Estimates of sea level rise and extreme surges. ▪ Census of seagrasses (density, species) is required for the study sites. In-situ temperature data would be desirable for a proper downscaling of model data. <p>All the proposed coupled ocean-atmosphere RCM climate runs will be consistent with low carbon emission pathways (RCP2.6 - effectively mitigated scenario), late-action scenario (RCP4.6) and non-action scenario (RCP8.5), therefore improving the understanding of island climate and its relationship with oceanic circulation.</p>
Data utility	<ul style="list-style-type: none"> ▪ For all meteorology and climatology offices in EU ▪ For the scientific community at global level; ▪ For the stakeholders of all sectors at regional level, to be informed and raise awareness about the risks and resilience capacities needed for their territories; ▪ EC, for data repository, and as input to be taken into account for future Climate policy in islands and coastal areas; For universities (creation and update of curricula). <p>For the creation, storage and exploitation of data by partners, a Zenodo's Community will be implemented aiming to improve data provision/access inside and outside the Consortium. Moreover, data will be openly accessible at 1. Project website (Knowledge Library) and 2. REIS platform, both including a Zenodo's Room, and 3. Scientific publications. Suitable integration with existing models/products and services are being analysed and a specific action/business plans will be implemented:</p> <ul style="list-style-type: none"> - Complementing the Global Wave Climatology Atlas gaps - EURO-CORDEX, ESCENA, PRECIS, ReKliEs-De, CORDEX FPS CPS, MENA-CORDEX, MEDECC, AWI ROM, ARPEGE Climat stretched centered on the Caribbean



Table 2a. Surveying

Aspect	Description
Origin of data	<p>Data will be produced with self-reported information from a representation of the EU's society. Three main target groups have been identified:</p> <ul style="list-style-type: none"> - Tourists visiting island destinations - European citizens which are frequent travellers at their country of residence; - - Experts and high level representatives of the sectors of aquaculture, maritime transport and energy
Data collection procedures	<p>First, a systematic and meta-analytic review of previous publications in scientific journals and EU reports will be conducted. This will serve to analyse existing data and results, and to design the questionnaires and interviews.</p> <p>Focus groups are also planned, aiming to validate the questionnaire before the fieldwork.</p> <p>Tourism: In order to obtain elicited non-market values of CC impacts and policies, a Fieldwork will be carried out in the 12 islands destinations of the project, and the four main outbound travel markets in Europe through specialized subcontracted companies. This work will be supported by the partners involved in this phase of the project. Surveys aim to gather individuals' reactions to hypothetical risks caused by Climate Change on islands, and how this could affect their travelling decisions and destination choice. Also, they aim to analyse the effects of potential adaptation measures within the same.</p> <p>Other Blue economy sectors: High level representatives of the industry will be interviewed in the islands in order to gather their views and opinions about current situation of the sector, information on acquisition prices, insurance, investments, productivity, etc. In some cases, the interviewees could provide information which is not available in official statistics of the sector, and is necessary to estimate economic impacts in the specific activities.</p> <p>Summarising, datasets will be created through three main tools:</p> <ul style="list-style-type: none"> - Face to face surveys; - Online surveys ; - In-depth interviews - <p>All collected data will be anonymous and held securely in line with the ULPGC (Coordinator)'s ethics requirements, national legislation and EU Directives. The collected and encoded database will be available on the project website and Zenodo Community (official data repository)</p>
Dataset description	<p>Data will be summarized in the form of coded numerical panel. More specifically:</p>



	<ol style="list-style-type: none"> 1. The database of results from surveys at islands is expected to have 2530 observations (subjects) and 80 variables approximately. 2. The database of results from online surveys will have an extension of about 5000 rows approximately (subjects) and 336 variables approximately <p>Typical information provided in the database are variables (dummy, nominal and scale formats) related to:</p> <ul style="list-style-type: none"> - Socio-demographic characteristics of the respondents (age, gender, income, educational level, occupation, etc.) - Characteristics of the activity performed (it depends on the sampling group), e.g.: travel description, season, length of stay and expenditure for the case of tourists; average time to do specific tasks, type of contract, daily traffic, etc. for other segments. - Emotions and feelings concerning specific scenarios of CC and related policies. - Stated preferences, behavioural change and willingness to pay for specific CC scenarios and related policies. <p>With regard interviews, the information will be qualitative and very case-specific, thus a database will not be created.</p>
Scale	12 EU islands and archipelagos and a statistically significant sample of all EU citizens travelling abroad.
Standards and metadata	Database from the questionnaires shall be held in transcript form in accessible file formats such as .xls (Excel).
Data utility	<ul style="list-style-type: none"> ▪ For the scientific community at global level; ▪ For stakeholders of the four studied sectors at regional level, to be informed about the social risks and consequences of CC, and to understand the high sensitivity of consumers to CC and policies to counteract them. ▪ For public authorities and practitioner's communities at regional level, to design incentives schemes to foster low carbon and environmental friendly behaviour in the related industries. ▪ EC, for data repository, and as input to be taken into account for future Climate policy in islands and coastal areas; <p>For the creation, storage and exploitation of data by partners, a Zenodo's Community will be implemented aiming to improve data provision/access inside and outside the consortium. Data will be openly accessible at 1. Project website (Knowledge Library), 2. REIS platform, both including a Zenodo's Room, and 3. Scientific publication. Suitable integration with existing and potential applied researches (doctoral thesis, other projects) is also planned.</p>



Table 2b. Data mining

Aspect	Description
Origin of data	<p>Data come from a scraper and cover information published on websites and social media that are relevant for the study of the tourism sector. Specifically, four main data origins have been identified:</p> <ul style="list-style-type: none"> - Instagram posts associated to most of the islands under investigation (Canary Islands, Crete, Cyprus, Malta, Sicily) and with tourism-related hashtags; - Daily prices posted by hotels on Booking.com and related to three islands under investigation (Corsica, Sardinia, Sicily). For comparison purposes, prices have also been collected for other mainland seaside destinations (Venice beach, Riccione), business (Milan) and cultural destinations (Venice); - Daily weather forecasts for the above regions posted by three important providers: Accuweather, The Weather Channel, Ilmeteo; - Historical weather data collected in darksky.net for the islands under investigation.
Data collection procedures	<p>The procedure of data scraping will be prepared by an external IT consultant, and the specific code used for each task of the project will be available for future checks and updates.</p> <p>Data scraping is planned to be conducted on 2019. Two virtual machines rented through an external service (DigitalOcean.com) will be used for the scraper, and provisional data were organized and stored on a secure server provided by AWS. The database consists of thousands of CSV files, organized by task, region, and period under observation.</p> <p>The analytic mining of collected data has been carried out using different software, among which Google Cloud Vision has been used for interpreting the characteristics of the pictures posted on Instagram, while Stata has been used for statistical and econometric analysis.</p> <p>They are held securely in line with the UNIBO (Task Coordinator)'s ethics requirements, national legislation and EU Directives. Primary and elaborated data will be available on Zenodo Community (official data repository), but they will not be openly accessible.</p>
Dataset description	<p>Primary data include different information, ranging from numerical variables (price, temperature) to text (information about rooms, captions of pictures) and to images (pictures). More specifically</p> <ol style="list-style-type: none"> 3. All original data are stored in their source format; 4. To undertake statistical analysis, data are cleaned, transformed and organized in simple text files (CSV format) 5. The complete database includes: <ol style="list-style-type: none"> a. 1036124 objects – 80.8 GB (Instagram pictures) b. 72 objects – 1.2 GB (Instagram CSV files) c. 510 objects – 118 GB (Booking CSV files) d. 77252 objects – 1.5 GB (Historical and forecast weather CSV files)



	6. Overall, there are about 100 million observations and 250 variables that, according to the analysis, are later transformed according to the specific aims of the task.
Scale	Instagram posts are collected for: Canary Islands, Crete, Cyprus, Malta, Sicily; Booking.com prices and characteristics are collected for Corsica, Sardinia, Sicily. For comparison purposes, prices have also been collected for other mainland seaside destinations (Venice beach, Riccione), business (Milan) and cultural destinations (Venice); Daily weather forecasts for all the above regions Historical weather data for Canary Islands, Crete, Cyprus, Malta, Sicily, Corsica, Sardinia. Azores, Madeira, Balearic Islands
Standards and metadata	Raw data are available in their original format. Data are then transformed in text format (CSV).
Data utility	<ul style="list-style-type: none"> ▪ For the scientific community at global level; ▪ For stakeholders of the tourism sector at regional level, to be informed about the social risks and consequences of CC, and to understand the high sensitivity of consumers to CC and policies to counteract them. ▪ For public authorities and practitioner's communities at regional level, to design incentives schemes to foster low carbon and environmentally friendly behaviour in the related industries. ▪ EC, for data repository, and as input to be taken into account for future Climate policy in islands and coastal areas. <p>For commercial and privacy reasons, data will be stored in Zenodo's room but will not be openly accessible. Suitable integration in future research projects (doctoral thesis) is also considered.</p>

Table 3. Socio-economic simulations

Aspect	Description
Origin of data	<p>WP6 participants will be involved in the collection and/or construction, in a concise manner, of all the required data, i.e. the Social Accounting Matrices, Input-Output, Household consumption tables and Bilateral Trade matrices for each island of the study</p> <p>Required data: IO tables, National Accounts, Employment by sector, Social accounting matrices, Tourism satellite accounts etc. at regional level. This will be found in National statistic offices, GTAP, EUROSTAT, WIOD, Eurostat, Ministries of Development, EC, DG-ENER, DG-Clima, OECD, WorldBank, etc.</p>



Data collection procedures	<p>After data collection, consistent macroeconomic outlooks will be simulated with the macroeconomic models (GEM-E3, GINFORS), including projections for all key macroeconomic indicators and major energy trends. The projections will be consistent with respective projections of regional and national authorities, if available. This will be provided for the entire period under analysis, namely from 2015 to 2050/2100.</p> <p>The physical climate impacts assessed in WP4 and WP5 will be fed as inputs to GEM-E3 (CGE) and GINFORS (macroeconometric) models on an island level. Detailed sectorial impacts will be assessed, including effects on GDP, added value, trade, employment at EU level, etc.</p> <p>All collected data will be held securely in line with the national legislation requirements that are in line with EU Directives, etc.</p>
Dataset description	Data will be presented in form of tables, in a format of input/output matrix, and in monetary values.
Scale	12 EU islands and archipelagos (Canary Islands, Balearics, Azores, Madeira, Corsica, Sicily, Sardinian, Crete, Malta, Cyprus, West Indies and Baltic Islands), and some macroeconomic indices for the EU. Scale will also be determined by data availability.
Standards and metadata	The data shall be held in transcript form in accessible file formats such as .xls (Excel) and .gdx (GAMS).
Data utility	<ul style="list-style-type: none"> ▪ For the scientific community at global level ▪ For public authorities and stakeholders at regional level, to be better informed about the economic consequences of the CC for the regional economies, and the costs of opportunity of doing nothing. ▪ For practitioners at regional level, to design incentives schemes to foster low carbon and environmental friendly behaviour in the related industries. ▪ For statistic offices at regional level. ▪ EC, for data repository, and as input to be taken into account for future Climate policy in islands and coastal areas <p>For the creation, storage and exploitation of data by partners, a Zenodo's Community will be implemented aiming to improve data provision/access inside and outside the consortium. Data will be openly accessible at 1. Project website (Knowledge Library), 2. REIS platform, both including a Zenodo's Room, and 3. Scientific publication.</p> <p>Suitable integration with existing statistics centres (Europe and island level) will be planned, and specific action/business plans will be implemented to this end Synergies with EU projects and their services (i.e. Coacch, PESETAI, II), GTAP community, and modelling activities of Fondazione CMCC are also planned.</p>



Table 4. Integrated adaptation pathways alternatives for Blue Economy sectors, based on stakeholders and experts' opinion.

Aspect	Description
Origin of data	<p>At this stage, a first outlook of the state of art of the climate governance and planning for the 12 EU islands will be needed.</p> <p>All WP7 participants and IFPs partners will use existing reports and databases. The European scale defines the base of the policy in the member states. The documents that could be considered are the following:</p> <ul style="list-style-type: none"> - Adaptation: EU Strategy on Adaptation to CC; General Union environment action programme to 2020 - Mitigation: Second European Climate Change Programme National scale (Malta and Cyprus): - Adaptation: National adaptation strategy (NAS) and national and/or sectoral adaptation plans (NAP/SAP) in place. Climate-adapt should be used to accomplish this - Mitigation: Second European Climate Change Programme <p>Integrated qualitative data will be produced for each island of the study, with information provided by at least 10 key stakeholders and experts in each region.</p>
Data collection procedures	<p>The starting action for data collection will be the creation of 12 draft islands reports. The draft islands reports will summarize, in an attractive and dynamic way, the expected impacts and socio-economic costs of different CC scenarios for each region of study. This will serve as a background material for organizing islands' workshops with stakeholders.</p> <p>12 workshops involving experts and stakeholders at regional level will be organized. This will serve for the identification of suitable and viable packages of adaptation, mitigation and risk management options for each island.</p> <p>During the workshops, regional stakeholders and experts, along with the partners of the project will:</p> <ul style="list-style-type: none"> - Identify integrated adaptation pathway alternatives that better fit the characteristics and potentialities of each island; - Adopt criteria for the evaluation and comparison of pathways; - Constructing a set of different alternative pathways for each island. <p>Finally, a public guide for the Islands will be produced to serve as a basis for future adaptation pathways implementation, networking and exchange of information regarding the blue economy sectors. This guide will emerge as a common framework for the Climate Change Adaptation policy pathways, based in biophysical and socioeconomic indicators, tools to support local decision making protection of the Blue Economy activities and considering the Disaster Risk Reduction and Mitigation policies. This is a public guide that will serve as a basis for future networking and exchange of information beyond the project lifetime, which will mainly have developed on a Regional Exchange Information Platform (REIS) created by this project.</p>



	All collected data will be held securely in line with the national legislation requirements that are in line with EU Directives, etc. The collected and elaborated data will be available on the project website or as a link to the reference databases.
Dataset description	Data will be presented in form of a matrix, for each region of the study, and also will be translated into dynamic tools to be used by regional stakeholders and practitioners.
Scale	12 EU islands and archipelagos (Canary Islands, Balearics, Azores, Madeira, Corsica, Sicily, Sardinian, Crete, Malta, Cyprus, West Indies and Baltic Islands), and EU (Blue Growth Strategy).
Standards and metadata	The data produced shall be held in transcript form in accessible and editable file formats such as .xls (Excel) or .doc(Word). A friendly online tool is required too.
Data utility	<ul style="list-style-type: none"> ▪ For the scientific community at global level ▪ Public authorities at regional level to be better informed about the range of alternative options their islands have in terms of climate adaptation strategies. ▪ For practitioner communities at regional level, to promote low carbon, risks reduction and more resilient industries. ▪ EC, for data repository, and as input to be taken into account for future Climate policy in islands and coastal areas <p>For the creation, storage and exploitation of data by partners, a Zenodo's Community will be implemented, aiming to facilitate data provision/access inside and outside the consortium. Data will be openly accessible at 1. Project website (Knowledge Library), 2. REIS platform, both including a Zenodo's Room and 3. Scientific publication. Interactions with EU official adaptation tools will be ensured (ADAPT tool)</p>

Table 5. Stakeholders' database

Aspect	Description
Origin of data	The database is built with the inputs of the IFP partners' and also through the website service of subscriptions and the social media interactions. This information is necessary not only to identify the key stakeholders' organisations in each island that shall be informed about the project outcomes, but also to form the Local Working Groups for the co-assessment of adaptation pathways. .
Data collection procedures	To accomplish the task of transforming the list of stakeholders provided by IFP partners into a database, 100 survey takers conducted an empirical work. These workers visited the websites of these organisations to supplement the original information with online information about emails, website URLs and social media



Dataset description	<p>The database includes 21 dimensions divided into two categories, namely, organisational and personal information.</p> <p>Concerning organisational information, the variables are as follows:</p> <ul style="list-style-type: none"> - the organisation's name - the organisation's address (street, number and zip) - the island and country classification -the organisation URL - the social media URL (Facebook, Twitter, LinkedIn, Instagram) - Sector & IIAM <p>Concerning the personal information, the variables are as follows:</p> <ul style="list-style-type: none"> - The person' name - The person's email - The person phone number - The audience assignation type - The social media URL (Facebook, Twitter, LinkedIn, Instagram)
Scale	<p>The scalability of the database will increase little by little. This is a living document that will be updated during the project lifetime. At the moment of submitting this D2.1 deliverable report, the database comprised 980 cases from the 12 European islands of the study (Canary Islands, Balearics, Azores, Madeira, Corsica, Sicily, Sardinian, Crete, Malta, Cyprus, West Indies and Baltic Fehmarn), the national and the EU level.</p>
Standards and metadata	<p>This database is held in transcript form in accessible file .xls (Excel) format. . As it is compatible with Hubspot, MailChimp and other softwares, the use of a CRM tool is planned for its exploitation.</p>
Data utility	<p>As far as cultivating the relationship with the stakeholders is concerned, we consider the construction of this tool a priority, with the following purposes:</p> <ul style="list-style-type: none"> - To implement email marketing activities to disseminate and communicate important outcomes with our target audience. - To improve the design and format of our messages by using high-quality templates. - To monitor and measure the impact of dissemination by checking KPIs. <p>Needless to say that we plan to constantly revise and adapt this database and CRM to the Soclimpact project demands and circumstances.</p>

In general terms, there is no sensitive information with restricted access. If the Coordinator encounters a case of restricted information by partners, the information will be stored in a personal folder of the coordinator, outside the project repository. The information will then be treated and specific consultation to the European Commission will be made. In all cases, data provided will clearly indicate the origin and the property rights if applies.



3. FAIR data

3.1 Making data findable, accessible, interoperable and reusable

The Research data generated in the project will be 'FAIR', that is findable, accessible, interoperable and re-usable. The collected and elaborated data will be available through SOCLIMPACT's specific Zenodo Community, created by the POT members in April 2020. The Zenodo platform will be linked to the project website facilitating provision/access to the different types of documents/databases. An updating process of the Zenodo's platform will be implemented by POT members during the last year of the project, and guidelines will be elaborated to project partners. With this tool, accessibility and re-usable potential of all the information generated in the project is ensured beyond the project lifetime.

Since the beginning of the project, a Dropbox account was created for internal documents, working papers, meetings' agenda and minutes, etc. Dropbox account will be active until the end of the project as the internal repository, as long as Dropbox company ensures the EU GDPR compliance. It is the responsibility of POT members to check this annually, and implement an action plan in line with legal settings. First, POT members will identify the different Dropbox's user accounts within the Consortium, as many partners are currently working with a Business or Education accounts. In these cases, Dropbox's GDPR Compliance Journey presents some particularities, being partner institutions (their legal departments) the data controllers for any personal data. Other cases will be evaluated individually, and consultancy services and/or Dropbox's GDPR guidance center will be used if necessary. In any case, enabling a Zenodo Community is the alternative chosen as it is the official data repository of the project.

The records and documentation produced will be in line with the accepted standards (organized, legible, high resolution and the colours design of the project), and WP leaders are the ones responsible for guaranteeing that all data is produced in a correct manner. WP leaders will be in charge of providing templates or any other tool to help to the best organization and homogenization of the collected data. If the WP leaders decide to make a drastic modification in the data produced/collected, this shall be informed to all partners. If one partner identify that the databases produced/collected need an important input or modification, shall ask to the WP leader before make the modification directly. Digital and digitalised documents are considered originals if they are authorised by the applicable national law. Clear names including the words "final version/date" will appear to make the files easily findable within the Dropbox internal repository.

POT members are responsible for encouraging all partners to follow the data uploading workflow correctly in order to avoid security incidents. It will be considered "security incident": any dissemination, elimination, destruction, modification, interruption or access or unauthorized of the internal or public data repositories. Although the security and monitoring measures have been adequately implemented for the prevention of security incidents, the risk that such incidents can occur can never be reduced to zero.

Some specific datasets will be handled using standardized data encoding formats (e.g. NetCDF for meteorological/climate information). Data made publicly available through the



deliverables, Zenodo and webpage will include a list of tags or keywords that relate to its content, in order to facilitate the finding and re-use by the end-users. To increase the interoperability of provided data, commonly used vocabularies as well as for the identifiers and the contents of the identifiers within the datasets will be applied. These include standardized name conventions and codes used in official statistics (e. g. for countries, regions etc.).

3.2 Zenodo tool

Zenodo was launched within an EU funded project, the knowledge bases were first filled with EU grants codes. Thus, Zenodo is FAIR principles compliant, and fit the Soclimpact requirements on dataset size, data storage and security. Zenodo allows to create a secured space and accept or reject uploads submitted to it. More details on their web page <https://about.zenodo.org/>.

Zenodo is hosted by CERN which has existed since 1954 and currently has an experimental program defined for the next 20+ years. CERN is a memory institution for High Energy Physics and renowned for its pioneering work in Open Access. Organizationally Zenodo is embedded in the IT Department, Collaboration Devices and Applications Group, Digital Repositories Section (IT-CDA-DR). Zenodo is offered by CERN as part of its mission to make available the results of its work ([CERN Convention, Article II, §1](#)). Also, Zenodo is part of OpenAIRE program and provides a repository for those researchers who do not have an existing institutional or thematic repository they can deposit their publications and data in.



Figure 1. Proposed workflow on Zenodo Platform

Dataset Size limitations

Zenodo accepts up to 50 GB per dataset (it is possible to have multiple datasets); there is no size limit on communities. If partners would like to upload larger files, they have to contact POT members.. Both data files and metadata are kept in multiple online and independent replicas. CERN has considerable knowledge and experience in building and operating large scale digital repositories and a commitment to maintain this data centre to collect and store 100s of PBs of LHC data as it grows over the next 20 years. Considering Soclimpact project, it means that the project will be covered during their 10 years lifetime.

In the highly unlikely event that Zenodo will have to close operations, Zenodo guarantees that they will migrate all content to other suitable repositories, and since all uploads have



SOCLIMPACT

This project has received funding from the European Union's Horizon
2020 research and innovation programme under Grant Agreement
No776661



DOIs, all citations and links to Zenodo resources (such as Soclimpact data) will not be affected.

Data storage

All files uploaded to Zenodo are stored in CERN's EOS service in an 18 petabytes disk cluster. Each file copy has two replicas located on different disk servers. For each file Zenodo store two independent MD5 checksums. One checksum is stored by Invenio and used to detect changes to files made from outside of Invenio. The other checksum is stored by EOS and used for automatic detection and recovery of file corruption on disks. EOS is the primary low latency storage infrastructure for physics data from the Large Hadron Collider (LHC) and CERN currently operates multiple instances totalling 150+ petabytes of data with expected growth rates of 30-50 petabytes per year. CERN's CASTOR system currently manages 100+ petabytes of LHC data which are regularly checked for data corruption. Invenio provides an object store like file management layer on top of EOS which is in charge of e.g. version changes to files.

Metadata storage

Metadata and persistent identifiers in Zenodo are stored in a PostgreSQL instance operated on CERN's Database on Demand infrastructure with 12-hourly backup cycle with one backup sent to tape storage once a week. Metadata is in addition indexed in an Elasticsearch cluster for fast and powerful searching. Metadata is stored in JSON format in PostgreSQL in a structure described by versioned JSONSchemas. All changes to metadata records on Zenodo are versioned and happening inside database transactions. In addition to the metadata and data storage, Zenodo relies on Redis for caching and RabbitMQ and python Celery for distributed background jobs. Security CERN Data Centre: is located on CERN premises and all physical access is restricted to a limited number of staff with appropriate training and who have been granted access in line with their professional duties (e.g. Zenodo staff do not have physical access to the CERN Data Centre). Servers: are managed according to the CERN Security Baseline for Servers, meaning e.g. remote access to our servers are restricted to Zenodo staff with appropriate training, and the operating system and installed applications are kept updated with latest security patches via our automatic configuration management system Puppet. Network: CERN Security Team runs both host and network-based intrusion detection systems and monitors the traffic flow, pattern and contents into and out of CERN networks in order to detect attacks. Data: Zenodo stores user passwords using strong cryptographic password hashing algorithms (currently PBKDF2+SHA512). Users' access tokens to GitHub and ORCID are stored encrypted and can only be decrypted with the application's secret key. Application: a suite of techniques to protect user's sessions from being stolen by an attacker are implemented. Staff: CERN staff with access to user data operate under CERN Operational Circular no. 5, meaning among other things that staff should not exchange among themselves information acquired unless it is expressly required for the execution of their duties. Staff are liable for damage resulting from any infringement and can have access withdrawn and/or be subject to disciplinary or legal proceedings depending on seriousness of the infringement.



Special note on closed access data

Zenodo allows users to upload files under closed access. Closed access means that zenodo.org users will not be able to access the files you uploaded. The files are however stored unencrypted and may be viewed by Zenodo operational staff under specific conditions. This means that “closed access” on Zenodo is not suitable for secret or confidential data.

3.3 Making data openly accessible

Open access journals will be used as a dissemination channels of project results. Scientific publications will be created in each phase of the project implementation. WP leaders are responsible for proposing and designing at least one publication of their work packages (at least 5 research articles for the project) in OPEN ACCESS high impact scientific journals. All papers shall be submitted in a period of maximum 6 months after the generation of the results, and always before the end of the project work plan.

Transparent publication rules are outlined hereafter, which helps to avoid internal conflicts on authorship, usage of results and exploitation rights.

There are four essential steps leading to a scientific publication:

1. Concept/idea
2. Data collection
3. Data analysis
4. Write-up

Other partners can also propose and jointly prepare publications. In this case they need to be involved in at least 2 steps (Logistic support or fieldwork is not enough, and hierarchical arguments inside their institutions do not cut). If some partners, not specialists in the use and interpretation of certain dataset, were involved in the process of its creation, there is not a reason to consider them as authors. Nevertheless, if they want to use it as part of their publications, they should first invite the experts (WP leaders, task leaders, deliverable responsible, etc.) and include them into the manuscript, in order to guarantee the correct interpretation and analysis. In any case, partners who did not participate/contribute to the production of the specific dataset, or did not participate in the WP which produced that data, cannot use it for publications.

All the ideas for publications and presentation in congresses shall be informed to the POT in order to keep updating the Project Publication Plan of the project. Also, partners must save a copy of the published version or final peer-reviewed manuscript accepted for publication, and evidence of the dissemination actions (conferences, workshops, etc.) in the repository of the project, in a specific folder created to this purpose.

Position in the list of authors

First and last authorship are the most prestigious ones and are valued in applications, competition more than the middle positions. There is generally no valuation difference among the second and last but one position.



1. A master or doctoral student publishing his or her work is always the first author
2. His/her supervisor is generally in the last (senior author)

The Steering Committee is responsible to solve conflicting claims, that should be presented for arbitration. The Soclimpact project will support the open access approach to all peer-reviewed scientific publications relating to its final results (as defined in the Grant Agreement). Also, linkages to OpenAire are ensured by the use of Zenodo platform, thus all papers published in journals will also be uploaded to Zenodo Community.

Scientific Publications already published will be also made available internally to the partners and shared publicly in the project website. The potential delayed access ("embargo periods") required by specific publishers and magazines will be negotiated in a case-by-case basis.

3.4 Personal data and confidentiality

The project will collect personal data of the stakeholders in the islands. Also, the information of the Advisory Board Members which are external scientific advisors will be managed. Personal data will be protected according to the last General Data Protection Regulation as of 25 May 2018¹, as related to the:

- Transparency of the collected data;
- Collection of the data for particular purposes (the collected data should be relevant and limited);
- Kept until a fixed term.
- Data protected with security measures.

In compliance with this regulation, the coordinator has set Ethics rules, included in the deliverable D1.1 Ethics with:

- Record of data collection activities;
- Causes of legitimation identified and consent forms;
- The expected periods of conservation for each collected data file
- Security measures to protect the confidentiality of each file.

A responsible team was designated for data management:

Main responsible: Professor Gonzalo Díaz Meneses, Professor at ULPGC

Manager: Marcial Rodríguez, from Creativica, marketing and communication partner.

Delegate: Raúl Vega, Creativica, marketing and communication partner of the Project

They have been trained and are firmly committed to complying with the regulations, as well as in the vocation to be at the service and respond to what users require.

¹ https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules_en



The following procedure will be implemented:

- ✓ The person responsible for data processing is the one who uses, preserves, transfers and eliminates the records created, being obliged to keep secret and guarantee the rights of access, rectification and cancellation.
- ✓ The main responsible and the delegate, being people linked to a digital agency, will be subject by means of a written contract that limits the use of the data for the exclusive purposes of the project, as well as they commit to secrecy, to security measures and to the instructions issued by the person in charge. In this way, a frequent and systematic procedure of these data is also established.
- ✓ Explicit consent will be requested to all members of the database as it appears in Appendix 1 (also available in the project website)
- ✓ The consent grants the right to a limited management within the technical discretion of the persons and has a limited duration.
- ✓ A secure consent capture mechanism is established through the CRM tool, which establishes the use of double opt-in, consisting in that once you can send a message to cancel your registration in the database.

Finally, in regard the Advisory Board (AB), these members will have first-hand access to all data of the project before being published, being the Coordinator the only partner responsible for transferring data to the AB. On the other side, AB members cannot make use of the information for their own purposes but exclusively for the purposes that have been requested from the project Coordinator. These subjects are previously informed about the obligation of confidentiality by signing the consent form. This is also described in the deliverable D1.1 Ethics and D2.5 Advisory Board final list and terms of reference.

In compliance with the so-called "proactive responsibility", when it is intended to put third parties in charge of services that require access to personal data or restricted information for internal use, the reliability of the third party will be assessed prior to the selection process, mainly studying the level of compliance and willingness to adhere to the data protection and confidentiality policy of the project. POT members will be informed of any action related to the subcontracting of such third party.

3.5 Intellectual Property Rights

Concerning IPR and dissemination of knowledge, the following general rule shall apply: *'When dissemination would adversely affect the legitimate interest of the Parties or IPR rights, dissemination will not be allowed.'*

The Soclimpact project partners are committed to execute their intellectual property (IP) rights in full correspondence with the general IP regime applicable to projects funded under the EC H2020 Framework Programme for research and technological development.



The project will generate new IP (“Foreground”) of one level which comprises but won't be limited to:

- The university members of the consortium will generate novel data based on algorithmic solutions and models, which shall have public status and shall have public level of dissemination. These will be presented at public conferences and journals as appropriate.
- The university and industrial members of the consortium will be involved into the implementation of online tools. These will have open source public status and will be made public under a user license to be chosen jointly by all the partners.

Each partner will serve the protection and exploitation of the expected results applying the most adequate policy to making use of internal resources. Management of the consortium IP will be organized in accordance with best practices and rules recommended by the Commission. This means:

- All partners will be granted royalty-free access rights to the Background of any other partner as far as needed for carrying out own project work. This is a necessary condition to make the project work possible.
- Every project partner shall own the intellectual property generated solely during the project as the result of the project activities (Foreground) however shall be obligated to grant Access Rights to the other partners on a royalty-free basis for carrying out the Project and on fair and reasonable conditions for Use of the other partners' own Foreground. Access Rights for Use have to be requested during a term after the Project's end which shall be mutually agreed.

IP with significant commercial potential does not apply to Soclimpact project. Other type of relation between the project partners in regard i) easy and flexible exchange of know-how and results, ii) efficient and rapid exploitation results, and iii) access to information, among others, are already expressed in the Consortium Agreement.

As the expected outcome of the project goes beyond the state of the art, the consortium will undertake reasonable efforts to ensure that the development is not going to duplicate research efforts and that the expected project results will indeed be innovative. However, the management of patentable results are not included as it does not apply to the Soclimpact type of outcomes.

Regarding technological application, it is intended that the SOCLIMPACT generates a REIS platform and an online tool, that shall be openly available for End Users, unless the partners agree on other exploitation or distribution. To the best knowledge of the consortium, the expected development is solely based upon IP of the project partners. If, however, the consortium will find out that certain technological developments within the project framework would require technologies, work methods or other information held by third parties, the partners shall consider a strategy for obtaining any necessary licences.



4. Exploitation and dissemination

In accordance with the GA, Soclimpact partners will take measures to ensure the 'exploitation' of project results beyond the end of the Project. The value of long-term preservation of the data produced by Soclimpact is bound in three main dimensions:

- i) Transparency** – some of the outcomes expected from the project are relevant not only to the academia, but are also intended to support policy making and to be disclosed to citizens. It is not only about access, it is also about sharing, re-use for discussion and in support of scenario analyses by policy makers and stakeholders, who should both be enabled to understand and analyse the material;
- ii) Scientific value** – by opening data we contribute to driving the spread of innovative approaches to governance, delivering social and scientific value, and
- iii) Participation and engagement** – the participatory approach beyond the project, engaging policy makers, stakeholders and public audience toward governance islands, and the promotion of networks for future development.

Soclimpact will produce their own dissemination tools:

- Active research platform used for standardisation activities (REIS platform)
- Adaptation support tool for Islands

The Regional Exchange Information Platform –REIS aims to ensure stakeholders and islands' exchange and benchmarking beyond the project's lifetime. In this regard, a promotional plan for better positioning of these services is being implemented and outlined in the **D8.8 Innovation and Exploitation Plan**.

According to the H2020 principles, all tools shall be useable by third parties even long time after the finalization of the project, by the wider public, the EC, the EU scientific community and especially for professional purposes of public and private stakeholders of the EU. In our project, there will not be restrictions for the external use of the REIS, the IT Tool, and the data published. It will be reusable for at least 10 years; after this duration the modelling results might be considered old.

Besides, Soclimpact's exploitation activities include the periodic interaction with other platforms of the EC as shown in Figure 2. The specific tasks and information identified to be uploaded in these platforms are specified in the Report D8.8



PLATFORM

WHAT FOR?



Figure 2. Existing platforms for dissemination of H2020 results

5. Other

New members in the partner institutions have to be introduced to all partners and the POT, in order to include them in the directory of partners and give access to the mailing lists and the internal repository.



Appendix 1.

PRIVACY POLICY OF SOCLIMPACT PROJECT

The SOCLIMPACT PROJECT operates the soclimpact.net website, which provides the SERVICE and the CRM tool, providing the DATABASE.

This page is used to inform visitors to the website regarding our policies on the collection, use, and disclosure of Personal Information should anyone decide to use our Service, the SOCLIMPACT website. It is understood that, SOCLIMPACT project proceeds in collecting Personal Data through the Service and its hyperlinks.

Furthermore, the SOCLIMPACT project intends to directly provide its stakeholders with resources with attractive and relevant content from the web, as a result of the research carried out on the impact of Climate Change in the main sectors of the Blue Economy of the European islands. Therefore, it is important to have a database that allows us to cultivate relationships with users.

Thus, we have fully assumed the commitment to comply with the current legislation that represents the General Data Protection Regulation (EU 2016/679), the Organic Law on Data Protection and Guarantee of Digital Rights (OLDPGDR, 2018) and the Law of the Information Society and Electronic Commerce (LISEC). All users will be invited to consult the aforementioned regulation, which will be provided for this purpose by the data controller and will be invited to give the required authorization for processing the data.

WEBSITE: INFORMATION COLLECTION AND USE

If you choose to use our Service (the website), then you agree to the collection and use of information in relation to this policy. The Personal Information that we collect is used for providing and improving the Service. We will not use or share your information with anyone, except as described in this Privacy Policy.

The terms used in this Privacy Policy have the same meanings as in our Terms and Conditions, which is accessible at soclimpact.net, unless otherwise defined in this Privacy Policy.

For a better experience while using our Service, we may require you to provide us with certain personally identifiable information, including but not limited to your name, phone number, and postal address. The information that we collect will be used to contact or identify you.

LOG DATA

We want to inform you that whenever you visit our Service, we collect information that your browser sends us, called Log Data. This Log Data may include information such as your computer's Internet Protocol ("IP") address, browser version, pages of our Service that you visit, the time and date of your visit, the time spent on those pages, and other statistics.

COOKIES

Cookies are files with a small amount of data that are commonly used as an anonymous unique identifier. These are sent to your browser from the website that you visit and are stored on your computer's hard drive. Our website uses these "cookies" to collection information and to improve our Service. You have the option to either accept or refuse these cookies, and to know when a cookie is being sent to your computer. If you choose to refuse our cookies, you may not be able to use some parts of our Service.



LINKS TO OTHER SITES

Our Service may contain links to other sites. Note that these external sites are not operated by us. Therefore, we strongly advise you to review the Privacy Policy of these websites. We have no control over and assume no responsibility for the content, privacy policies, or practices of any third-party sites or services.

CHILDREN'S PRIVACY

Our Services do not address anyone under the age of 13. We do not knowingly collect personal identifiable information from children under 13. In the case we discover that a child under 13 has provided us with personal information, we immediately delete this from our servers. If you are a parent or guardian and you are aware that your child has provided us with personal information, please contact us so that we will be able to carry out necessary actions.

DATABASE: EXPLOITATION AND MANAGEMENT

WHAT TYPE OF INFORMATION WILL YOU RECEIVE?

Relevant findings of the project for your region/field of interest

Invitation to participate in regional workshops, webinars and other meetings

Invitation to participate in discussions about possible adaptation pathways for your region

WHAT HAPPENS WITH YOUR PERSONAL INFORMATION?

All data with your personal information will be included in our stakeholders' database. In this way, our commitments are summarised in eight points:

- The database is owned by the University of Las Palmas de Gran Canaria (data controller), and will be managed under the direction of the Soclimpact project.
- The database will be used only for the purposes of the Soclimpact project and, more specifically, to send you relevant emails, taking into account your explicit consent, as well as the type of link you have with us, in addition to your professional organisational profile.
- The database contains information regarding the name of the entity, the contact person, the address, and more, such as the web pages and social networks of the users. Likewise, we collect information from browsing history and access logs, which we interpret thanks to the use of programs such as Google Analytics and other SEOs. Finally, we store information about the interactions and exchanges that we have had, such as the opening of emails, subscriptions to our newsletter, the accessing of digital resources, etc.
- We have a data controller, as well as a manager and a delegate, who are part of the project coordination team. All these people have been trained and are firmly committed to complying with these regulations, as well as the responsibility of being at your service and responding to user requirements.
- We have cybersecurity systems, both technical and organisational, to protect the information we have about our users.
- Our users can ask us for information about how we use their data. In fact, we have supporting files and reporting systems that could be provided if desired.



SOCLIMPACT

This project has received funding from the European Union's Horizon
2020 research and innovation programme under Grant Agreement
No776661



- We will not transfer your data to third parties without your explicit consent. We acknowledge that your explicit consent has been given exclusively to the Soclimpact Project.

The explicit consent you give has a limited duration – the end of the activities of this project, March 2021. If the project activities were to continue, we would have to request a renewal of explicit consent.

BENEFITS

By using the Service and be part of the Database you will:

Be the first beneficiaries of the results of the project (feeding adaptation projects for your island)

Have access to examples and good practices from other island contexts

Find possible link with European approaches to the islands and the blue economy.

Collaborate with a European project at the forefront of current climate research (Soclimpact project);

SERVICE PROVIDERS

We may employ third-party companies and individuals for the following reasons:

To facilitate our Service and Database;

To provide the Service and Database on our behalf;

To perform other Service-related and Database-related services; or

To assist us in analyzing how our Service and the Database is used.

We want to inform our Service and Database users that these third parties have access to your Personal Information. The reason is to perform the tasks assigned to them on our behalf. However, they are obligated not to disclose or use the information for any other purpose.

RISKS OR INCONVENIENCES

No risk is foreseen.

CHANGES TO THIS PRIVACY POLICY

We may update our Privacy Policy from time to time. Thus, we advise you to review this page periodically for any changes. We will notify you of any changes by posting the new Privacy Policy on this page. These changes are effective immediately, after they are posted on this page.

CONTACT US

If you have any questions or suggestions about our Privacy Policy, do not hesitate to contact us to info@soclimpact.net.