

# VIPRISCAR

Validation of an industrial process to manufacture isosorbide bis(methyl carbonate) at pilot level

## Deliverable D8.4

### Data Management Plan (I)

Lead Beneficiary	VERTECH
Delivery Date	29/11/2018
Dissemination Level	Public
Status	Approved
Version	1
Keywords	Data management, FAIR, Findable, Accessible, Interoperable, Reusable, Data security, Open access, GDPR



This project has received funding from the Bio Based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 790440. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio Based Industries Consortium.

## Disclaimer

This Deliverable reflects only the author's views and the BBI-JU is not responsible for any use that may be made of the information contained therein.

## Document Information

<b>Grant Agreement Number</b>	790440
<b>Project Acronym</b>	VIPRISCAR
<b>Work Package</b>	WP 8
<b>Related Task(s)</b>	T8.3
<b>Deliverable</b>	D8.4
<b>Title</b>	Data Management Plan (I)
<b>Responsible Author</b>	Ana DUBOIS (VERTECH), Yi-Ju LAI (VERTECH)
<b>Contributor(s)</b>	TECNALIA, JOWAT, CIKAUTO, B4P, AEP, EXERGY, GAIKER, LEITAT, VERTECH
<b>File Name</b>	VIPRISCAR_D8.4_Data Management Plan_M6_v1_20181129.docx

## Revision History

Revision	Date	Description	Reviewer
1.0	19/11/2018	Revision	AEP, TECNALIA

## EXECUTIVE SUMMARY

This Data Management Plan aims at illustrating all the data that will be generated and/or collected throughout the project lifetime from June 1<sup>st</sup>, 2018 to May 31<sup>th</sup>, 2021; how it will be stored and managed; what are the measures to ensure the data quality and security; who owns the data and how they can be re-used if possible.

This Data management Plan is the first version and the document will be updated over the course of the project at month 24 and month 36 to reflect all the significant changes including but not limited to new datasets identification, identified datasets modification, or data management policy amendment.

The VIPRISCAR consortium is aware of and will make necessary efforts to follow the **FAIR** data management policy suggested by European Commission, meaning making data findable, accessible, interoperable, and reusable.

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## ABBREVIATIONS AND ACRONYMS

CA	Consortium Agreement
DMP	Data Management Plan
DOI	Digital Object Identifier
EU	European Union
FAIR	Findable, Accessible, Interoperable, Reusable
GA	Grant Agreement
GDRP	General Data Protection Regulation
IBMC	Isosorbide bis(methyl carbonate)
IPR	Intellectual Property Right
ORD	Open Research Data
TRL	Technology Readiness Level
WP	Work Package

## 1. INTRODUCTION

This document describes the initial **Data Management Plan (DMP)**, as Deliverable 8.4 on Month 6, customized for the VIPRISCAR project, funded by the BBI-JU (The Bio-Based Industries Joint Undertaking) under the Grant Agreement (GA) No. 790440.

The purpose of this DMP is to ensure the data generated and collected in the VIPRISCAR project will follow the **FAIR** data management policy, meaning making data findable, accessible, interoperable, and reusable. According to the guidelines provided by EU Horizon 2020 programmes (European Commission, 2018), following information will be included in this DMP:

- ▶ Methods to handle the research data during and after the end of project
- ▶ Descriptions of the datasets that will be collected, processed, and/or generated, such as data type, format, volume, source, etc.
- ▶ Methodologies and standards that will be adopted for the data management
- ▶ Level of accessibility/confidentiality of the data
- ▶ Methods to curate and preserve the data during and after the end of the project

Nevertheless, some important remarks are to be noticed. The encouragement to conduct the DMP is to serve as a tool to assist the project having good data management practice. In addition, according to article 29.3 in the GA, the VIPRISCAR project is not applicable for open access to research data, meaning the research data collected and/or generated in the VIPRISCAR project does not have to be submitted to open access. Hence, the rules to apply in this case would be in accordance with the IPR strategy and exploitation plan. Research data dissemination shall not hinder the ability of the partners to file for a patent. More details will be provided in the first version of exploitation plan as deliverable D8.7 due month 6.

## 2. DATA SUMMARY

### 2.1 Purpose of Data Generation and Collection

The purpose of data generation and collection in the VIPRISCAR project is to achieve the objectives of the project: Improve the manufacturing process of isosorbide bis(methyl carbonate) (IBMC) from the current technology readiness level (TRL) 3 to 5 and provide proof-of-principle of the major target IBMC applications of coating, adhesive, and medical catheters.

### 2.2 Data Generation and Collection

The majority of the datasets will be generated from work package (WP) 2 to WP7 from the experiments throughout the project lifetime. Descriptions of the datasets are categorized into both qualitative and quantitative aspects (as shown in Table 1). There are total 21 datasets being identified at current stage. The information has been collected via questionnaires distributed to each partner and may be updated in future versions of the DMP (D8.5, due M24; D8.6, due M36).

**TABLE 1 DATASET INFORMATION TEMPLATE**

<b>Work Package</b>	Which WP and deliverable are this dataset related to
<b>Dataset Name</b>	The name of the dataset should be easily to search and find
<b>Dataset Description</b>	Brief description of the dataset
<b>Responsible partners</b>	The lead partners responsible for the dataset generation/collection
<b>Purpose</b>	The purpose of the data collection/generation and its relation to the objectives of the project
<b>Type</b>	Types of data could be report, paper, interview, expert or organization contact details, video, audio, presentation, or note
<b>Format</b>	Data formats could be XLSX, DOC, PDF, PPT, JPEG, OPJ, TIFF
<b>Volume</b>	The size of the dataset (units: GB/MB) and the number of files
<b>Source</b>	The origin of the data
<b>IPR Owner</b>	Which project participant(s) own the intellectual property right (IPR)
<b>Re-use existing Data</b>	Identification if any existing data being reused and how they are used
<b>Beneficiary</b>	To whom the data may be useful
<b>DOI (if known)</b>	
<b>Keywords</b>	The keywords associated with the dataset to make it easier to search and find
<b>Version number</b>	To keep track of changes to the dataset

**TABLE 2 DATASETS INFORMATION FOR WP1**

<b>Work Package 1</b>	
<b>Work Package</b>	WP1-9, all deliverables
<b>Dataset Name</b>	Deliverables from work package one to nine
<b>Dataset Description</b>	The dataset includes all the deliverable reports from work package one to nine required in the GA
<b>Responsible partners</b>	TECNALIA and all the lead partners for each deliverable
<b>Purpose</b>	To ensure the project implementation and document the results in proper manner

<b>Type</b>	Reports
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Approx. 40-50
<b>Source</b>	Partners contribution
<b>IPR Owner</b>	Involved partners who write the report
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	VIPRISCAR consortium and public if the deliverables are openly accessible
<b>Keywords</b>	Deliverable
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Deposit location</b>	Openly accessible data will be deposited on the project website. Confidential report will be deposited in the project intranet.

TABLE 3 DATASETS INFORMATION FOR WP2

Work Package 2	
<b>Work Package</b>	WP 2 , Deliverable D2.1 and D2.2
<b>Dataset Name</b>	WP2_IBMC process development and validation at lab scale
<b>Dataset Description</b>	The dataset will contain data collection about conditions of reactions carried about in TECNALIA to IBMC process development. A complete characterization of products will be also reported.
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To bring B4P and Exergy enough data for upscaling and techno-economic analyses of the IBMC process, respectively
<b>Type</b>	Conditions of reaction
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: To be defined
<b>Source</b>	Lab experimentation in TECNALIA
<b>IPR Owner</b>	TECNALIA
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> They are data obtained before VIPRISCAR application and used for filing the patents granted through 2018. The will be used as starting point for reaction improvement in WP2.
<b>Beneficiary</b>	B4P, Exergy
<b>Keywords</b>	IBMC
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 2 , Deliverable D2.3 Process simulation and preliminary up scaling report
<b>Dataset Name</b>	Heat and mass balance; process flow diagram; equipment list
<b>Dataset Description</b>	<ol style="list-style-type: none"> <li>1. Heat and mass balance: a document (excel) contains all stream information, including flowrate, temperature, pressure, composition, and physical properties</li> <li>2. Process flow diagram: a diagram shows all the unit operations in the integrated plant, and the main pipe connections;</li> <li>3. Equipment list: list of equipment used in the process and the essential equipment information</li> </ol>
<b>Responsible partners</b>	EXERGY
<b>Purpose</b>	To complete the deliverable in WP2
<b>Type</b>	Quantitative data, diagram, list
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: at least 4
<b>Source</b>	Simulation software, information from partners

<b>IPR Owner</b>	EXERGY
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All technical consortiums
<b>Keywords</b>	Simulation
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**TABLE 4 DATASETS INFORMATION FOR WP3**

<b>Work Package 3</b>	
<b>Work Package</b>	WP 3 , Deliverable D3.3 Plant up-scaling simulation to industrial scale
<b>Dataset Name</b>	Heat and mass balance; process flow diagram; equipment list; equipment sizing
<b>Dataset Description</b>	<ol style="list-style-type: none"> <li>1. Heat and mass balance: a document (excel) contains all stream information, including flowrate, temperature, pressure, composition, and physical properties.</li> <li>2. Process flow diagram: a diagram shows all the unit operations in the integrated plant, and the main pipe connections.</li> <li>3. Equipment list: list of equipment used in the process and the essential equipment information.</li> <li>4. Equipment sizing: sizing calculations of the scaled-up equipment</li> </ol>
<b>Responsible partners</b>	EXERGY
<b>Purpose</b>	To complete the deliverable in WP2
<b>Type</b>	Quantitative data, diagram, list
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: at least 5
<b>Source</b>	Simulation software, manual calculations, information from partners
<b>IPR Owner</b>	EXERGY
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All technical consortiums
<b>Keywords</b>	Simulation
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**TABLE 5 DATASETS INFORMATION FOR WP4**

<b>Work Package 4</b>	
<b>Work Package</b>	WP 4 , Deliverable D4.1, D4.2, D4.3
<b>Dataset Name</b>	Viprisca WP4
<b>Dataset Description</b>	The dataset is constituted of a hard copy series of notebooks with progressive number, that reference files containing relevant data. It contains synthetic protocols, formulations and testing conditions/test results.
<b>Responsible partners</b>	AEP
<b>Purpose</b>	The dataset will be used for internal purposes. It will contain design and synthesis data of new materials from IBMC to be used in coatings and process/performance data of the obtained coatings.
<b>Type</b>	Description of lab procedures for synthesis and testing, test results, chemical structures and properties of the materials
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input checked="" type="checkbox"/> Hard copy laboratory notebook(s)
<b>Volume</b>	Expected Size: 100 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: 10-20

<b>Source</b>	The data is generated internally, through design and lab testing
<b>IPR Owner</b>	AEP POLYMERS
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> We will use QC and analytic data provided by TECNALIA regarding the received IMBC samples (From TECNALIA) as a basis for our processes.
<b>Beneficiary</b>	AEP, GAIKER, TECNALIA, JOWAT, LEITAT
<b>Keywords</b>	WP4, coatings, PUD, NIPU
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 4 , Deliverable D4.1
<b>Dataset Name</b>	IBMC hydroxyl-polycarbonates and waterborne polyurethane dispersions
<b>Dataset Description</b>	Procedures for synthesizing IBMC derived hydroxyl-oligocarbonates and properties of obtained products. Procedures for producing PUDs and properties of obtained dispersions.
<b>Responsible partners</b>	GAIKER
<b>Purpose</b>	To define the fabrication procedure to obtain IBMC derived prepolymers and to develop PUDs with IBMC for further preparation of coatings.
<b>Type</b>	Report with associated characterization results.
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
<b>Volume</b>	Expected Size: 10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: < 10
<b>Source</b>	Experimental work
<b>IPR Owner</b>	GAIKER
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> As a reference for define experimental conditions and characterization methods, and as comparative data to define chemical structures and properties.
<b>Beneficiary</b>	Chemical industry; Manufacturers of coatings/paints/adhesives/sealants; Scientific researchers
<b>Keywords</b>	Isosorbide bis(Methyl Carbonate), bio-based molecule, polycarbonate diol, bio-based PUDs, bio-based polyurethane
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 4 , Deliverable D4.2
<b>Dataset Name</b>	IBMC based coatings
<b>Dataset Description</b>	Procedures for producing IBMC based coatings, characterization of properties and comparison to reference examples.
<b>Responsible partners</b>	AEP POLYMERS
<b>Purpose</b>	To develop coatings from IBMC based PUDs
<b>Type</b>	Report with associated characterization results.
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
<b>Volume</b>	Expected Size: 10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: < 10
<b>Source</b>	Experimental work
<b>IPR Owner</b>	GAIKER
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> As a reference for define experimental conditions and characterization methods, and as comparative data to define chemical structures and properties.
<b>Beneficiary</b>	Manufacturers of coatings/paints/adhesives/sealants; Scientific researchers
<b>Keywords</b>	Isosorbide bis(Methyl Carbonate), bio-based PUDs, bio-based polyurethane, bio-coating
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 6 DATASETS INFORMATION FOR WP5

Work Package 5	
<b>Work Package</b>	WP 5 , Deliverable D5.1
<b>Dataset Name</b>	WP5.1 _Adhesives application proof of principle
<b>Dataset Description</b>	The dataset will contain data collection about the selection of the raw materials and the definition of adhesives applications
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To collect enough data to develop NIPUs (adhesives) from IBMC
<b>Type</b>	Materials and applications specifications
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: To be defined
<b>Source</b>	Literature review
<b>IPR Owner</b>	TECNALIA
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	TECNALIA, JOWAT
<b>Keywords</b>	NIPUs, adhesives
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 5 , Deliverable D5.3-D5.6
<b>Dataset Name</b>	WP5.2 NIPUs-based adhesives
<b>Dataset Description</b>	The dataset will contain data collection about conditions of reactions carried about in TECNALIA to NIPUs-based adhesive process development. A complete characterization of products will be also reported.
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To collect proper conditions to developed NIPUs-based adhesives
<b>Type</b>	Conditions of reaction and characterization
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: To be defined
<b>Source</b>	Lab experimentation in TECNALIA
<b>IPR Owner</b>	TECNALIA
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	JOWAT
<b>Keywords</b>	NIPUs-based adhesives
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 7 DATASETS INFORMATION FOR WP6

Work Package 6	
<b>Work Package</b>	WP 6 , Deliverable D6.1
<b>Dataset Name</b>	WP6- Synthesis of thermoplastic IBMC-based NIPUs
<b>Dataset Description</b>	The dataset will contain data collection about experiments related to synthesis, biofunctionalization and characterization of IBMC based NIPUs.
<b>Responsible partners</b>	TECNALIA, CIKAUTXO
<b>Purpose</b>	To bring to CIKAUTXO a bio functionalized IBMC-based NIPU to process it into a catheter
<b>Type</b>	Experiments conditions and results
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: To be defined

<b>Source</b>	Lab experimentation in TECNALIA
<b>IPR Owner</b>	TECNALIA
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	CIKAUTXO
<b>Keywords</b>	Synthesis, biofunctionalization, toxicity, IBMC, antimicrobial, antithrombotic
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 6 , Deliverable D6.3
<b>Dataset Name</b>	WP6_Biocompatibility and bio functionality of the final prototype
<b>Dataset Description</b>	The dataset will contain data collection about the results of biocompatibility and bio functionality evaluations of the final catheter prototype.
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To demonstrate the usefulness in catheter production of IBMC-based NIPUs
<b>Type</b>	Results of experiments
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: To Be Defined
<b>Source</b>	Lab experimentation carried out by TECNALIA
<b>IPR Owner</b>	TECNALIA
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	CIKAUTXO
<b>Keywords</b>	Biocompatibility bio functionality biocidal antithrombotic
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 8 DATASETS INFORMATION FOR WP7

<b>Work Package 7</b>	
<b>Work Package</b>	WP 7 , Deliverable D7.7
<b>Dataset Name</b>	WP7_ Health and safety study
<b>Dataset Description</b>	The dataset will contain data collection about the results of a toxicity study on IBMC and most promising final product. Results of the bibliographic search on Regulatory issues and standards related to Environment and health and safety issues concerning the IBMC production will also be included.
<b>Responsible partners</b>	TECNALIA, VERTECH
<b>Purpose</b>	To identify and evaluate health and safety issues related to VIPRISCAR project technologies and products to prevent, correct and control potential risks, if necessary.
<b>Type</b>	Results of experiments and results of bibliographic data
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: TBD
<b>Source</b>	Lab experimentation carried out by TECNALIA and bibliographic research carried out by Vertech with the support of TECNALIA. Other partners' contributions.
<b>IPR Owner</b>	
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Bibliographic data to know the state of the art in all the mentioned issues
<b>Beneficiary</b>	To all the consortium
<b>Keywords</b>	Toxicity, REACH, health, safety, regulation, standard, IBMC
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 7 , Deliverable D7.2
<b>Dataset Name</b>	LCC data collection

<b>Dataset Description</b>	All partners will have to fill the data collection template with the CAPEX (investment for the machinery, external processes, infrastructure), OPEX (specific cost of waste material, process energy, maintenance, labor force, insurances, taxes etc.) and the incomes of the system (the specific cost of the main product and by-products of the process).
<b>Responsible partners</b>	All partners
<b>Purpose</b>	The data collection will determine cost-effectiveness of the proposed technologies compared to currently used techniques.
<b>Type</b>	Quantitative data
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: <100 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: <15
<b>Source</b>	The data comes from the different demsites. The partners will fill the data collection table and send it back to Vertech Group.
<b>IPR Owner</b>	Technology owners.
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All involved partners.
<b>Keywords</b>	LCC, economic feasibility, economic validation
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 7 , Deliverable 7.3
<b>Dataset Name</b>	LCA data collection
<b>Dataset Description</b>	Input and output of all partners processes
<b>Responsible partners</b>	All partners will have to generate the information and Vertech will collect it.
<b>Purpose</b>	The data will be used to comprehensively characterize environmental impacts through the whole life cycle thanks to an LCA.
<b>Type</b>	Quantitative data
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input checked="" type="checkbox"/> CSV
<b>Volume</b>	Expected Size: <100 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: <15
<b>Source</b>	The data comes from the different demsites. The partners will fill the data collection table and send it back to Vertech Group.
<b>IPR Owner</b>	Technology owners.
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All involved partners.
<b>Keywords</b>	LCA, environmental impacts, sustainability analysis.
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 7 , Deliverable D7.1 Technical evaluation of VIPRISCAR concepts
<b>Dataset Name</b>	Heat and mass balance
<b>Dataset Description</b>	This document (excel) contains all stream information, including flowrate, temperature, pressure, composition, and physical properties
<b>Responsible partners</b>	EXERGY
<b>Purpose</b>	To complete the deliverable in WP7
<b>Type</b>	Quantitative data
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: at least 5
<b>Source</b>	Simulation software, manual calculations, information from partners

<b>IPR Owner</b>	EXERGY
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All technical consortiums
<b>Keywords</b>	Simulation
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

**TABLE 9 DATASETS INFORMATION FOR WP8**

<b>Work Package 8</b>	
<b>Work Package</b>	WP 8 , Deliverable D8.11-D8.14
<b>Dataset Name</b>	Dissemination and communication plan
<b>Dataset Description</b>	The plan will contain data related to dissemination and communication issues
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To manage the issues related to dissemination and communication
<b>Type</b>	Dissemination material
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: at least 10
<b>Source</b>	Partners contribution
<b>IPR Owner</b>	
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All audience
<b>Keywords</b>	Publications, dissemination, communication
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Deposit location</b>	Through the VIPRISCAR website
<b>Work Package</b>	WP 8 , Deliverable D8.15
<b>Dataset Name</b>	Website
<b>Dataset Description</b>	Content of the website
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To disseminate the VIPRISCAR project
<b>Type</b>	Dissemination material
<b>Format</b>	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/>
<b>Source</b>	Partners contribution
<b>IPR Owner</b>	
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	All audience
<b>Keywords</b>	Website, dissemination
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 8 , Deliverable 8.4
<b>Dataset Name</b>	WP8_D8.4_Data Management Plan Questionnaires From the Consortium
<b>Dataset Description</b>	This dataset includes all the questionnaires answered by each partner in the consortium about the datasets that will be generated within the project lifetime and how they will be managed during and after the end of project

<b>Responsible partners</b>	All partners are responsible to fill out the questionnaire that is designed, distributed, and collected by Vertech
<b>Purpose</b>	To conduct the Data management plan tailor-made for VIPRISCAR project
<b>Type</b>	Questionnaires
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: >10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Approx. 30
<b>Source</b>	Project partners
<b>IPR Owner</b>	Partners who fill out the questionnaire
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	Whole consortium and related stakeholders
<b>Keywords</b>	Data management plan, FAIR, findability, accessibility, interoperability, reusability, data security
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 8 , Deliverable 8.7
<b>Dataset Name</b>	WP8_D8.7_Exploitation Plan Questionnaires From the Consortium
<b>Dataset Description</b>	This dataset includes all the questionnaires answered by each partner in the consortium for the information about the KERs, IPR strategy and protection, market analysis, and exploitation
<b>Responsible partners</b>	All partners are responsible to fill out the questionnaire that is designed, distributed, and collected by Vertech
<b>Purpose</b>	To conduct the Exploitation plan tailor-made for VIPRISCAR project
<b>Type</b>	Questionnaires
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: >10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Approx. 30
<b>Source</b>	Project partners
<b>IPR Owner</b>	Partners who fill out the questionnaire
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	Partners involved for each commercial KERs
<b>Keywords</b>	Exploitable results, exploitation route, intellectual property
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Work Package</b>	WP 8 , Deliverable D8.5
<b>Dataset Name</b>	VIPRISCAR Articles
<b>Dataset Description</b>	Articles in technical journals.
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To increase the visibility of the project and disseminate outstanding results related to IBMC based PUDs and coatings
<b>Type</b>	Technical paper.
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: 5 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: 2
<b>Source</b>	Experimental work and reporting
<b>IPR Owner</b>	GAIKER
<b>Re-use existing Data</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> As a reference for define experimental conditions and characterization methods, and as comparative data to define chemical structures and properties.
<b>Beneficiary</b>	Chemical industry; Manufacturers of coatings/paints/adhesives/sealants; Scientific researchers

<b>Keywords</b>	Isosorbide bis(Methyl Carbonate), bio-based PUDs, bio-based polyurethanes, bio-coatings
<b>Version number</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

**TABLE 10 DATASETS INFORMATION FOR WP9**

<b>Work Package 9</b>	
<b>Work Package</b>	WP 9 , Deliverable D9.1 and D9.2
<b>Dataset Name</b>	Ethics requirements
<b>Dataset Description</b>	The dataset will collect the ethics requirements that the project must comply
<b>Responsible partners</b>	TECNALIA
<b>Purpose</b>	To comply with the ethics requirements
<b>Type</b>	authorization of compliance with ethical requirements
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
<b>Volume</b>	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: 2
<b>Source</b>	Partners contribution
<b>IPR Owner</b>	
<b>Re-use existing Data</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Beneficiary</b>	BBI-JU
<b>Keywords</b>	Ethics
<b>Version number</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

### 3. FAIR DATA

The VIPRISCAR project will dedicate to make the datasets collected or generated in the project comply to European Commission’s FAIR data policy – “Findable, Accessible, Interoperable, Reusable”.

#### 3.1 Findability

For published articles, a Digital Object Identifier (DOI) as a unique and permanent code to identify will be assigned by the corresponding journal. In other case, the identification mechanism will depend on the repository that the VIPRISCAR project adopts if any.

Common naming conventions have been set out in D1.1 Quality Assurance Plan prepared by project participant TECNALIA for all files stored on the project archive.

Naming conventions:

VIPRISCAR\_<DX.Y/WPX/TX.Y>\_<Title>\_<Version>\_<Date>.filetype

Where:

- <DX.Y> Deliverable number, e.g. “D2.3” for Deliverable 2.3.
- <WPX> Work Package identifier, e.g. for example “WP1” or “WP2”.
- <TX.Y> Task number, e.g. “T3.1” for Task 3.1.
- <Title> Short description of document.
- <Version> Version identifier, e.g. ‘v1’.
- <Date> Date in “yyyymmdd” format.

Example:

VIPRISCAR\_D1.1\_Quality Assurance Plan (I)\_v1\_20180208.docx.

Search keywords of each dataset are provided by the project participants who generate the datasets to optimize the possibilities for reuse and are noted in the dataset information table as shown in section 2.2 above.

Other different standards to identify the datasets used by each partner are listed below if any:

**TABLE 11 STANDARDS OF DATASET IDENTIFICATION BY EACH PARTNER**

Partner Name	Standards
JOWAT	Analysis-ID, Date, person, batch number

### 3.2 Accessibility

According to Article 29.1 in the GA, each beneficiary must disseminate the project results as soon as possible by disclosing them to the public through appropriate means, unless the legitimate interests would be infringed. Currently, the VIPRISCAR project considers using Microsoft’s SharePoint as an intranet/repository to deposit project related data and documentation. Key features include easiness to manage/share/collaborate the file anywhere, wide-range of preview function for more than 270 common file types, support for team communication and engagement, and automation of repetitive tasks (Microsoft, 2018).

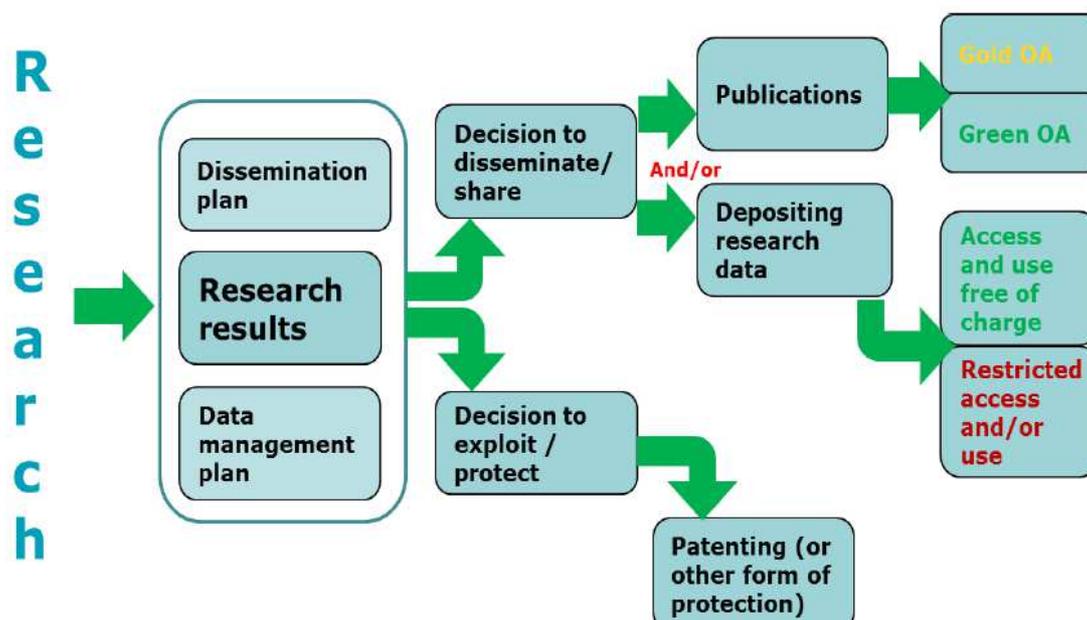


FIGURE 1 OPEN ACCESS OF PUBLICATIONS AND RESEARCH DATA  
(Spichtinger, 2016)

For scientific publications, each partner must take measures to ensure open access, meaning providing online access for any user without additional charge, to all peer-reviewed scientific publication relating to its results in accordance with the Article 29.2 in the GA. Two main publishing approaches to consider are Green and Gold open access (Newcastle University, 2018)(Springer, 2018).

- ▶ **Green open access:** Also referred as self-archiving. Authors deposit the manuscripts into their institutional repository or a subject repository with immediate or delayed open access, making the publications freely accessible for all users. The deposited version of the publication (usually will be the final version for publication), terms and condition (e.g. embargo period) for the open access depend on the funder or publisher.
- ▶ **Gold open access:** Final version of the manuscripts are freely accessible for all users via publisher website permanently right after the publication without any embargo period.

Authors owns the copyright without most of the permission restrictions compared to green open access.

Research data of VIPRISCAR project, as mentioned in previous section, is not bound to be submitted to open access. As one of the results of the VIPRISCAR project, research data will be owned by the project participants who generate it, according to article 26 in the GA. The project coordinator together with the responsible partners will determine how the data collected and/or generated in the project will be made openly available. Relevant information to provide in future versions of the DMP (D8.5, due M24; D8.6, due M36) may include but not limit to following information: The channels to deposit the data (e.g. repository, website, scientific journals), methods or software required to access the data if any, restriction on use if any, embargo period if any, the procedures to provide access, etc. Certain datasets may not be shared or would be share under restrictions considering ethical, confidentiality (in Article 36), security-related (in Article 37), privacy-related (in Article 39), IPR and commercial/industrial exploitation potential (in Article 27). In this case, reasons for data accessibility constrains will be explained.

Below is the list of the datasets that have been identified as confidential in order to protect the IP of the results and ensure the success of the exploitation after the end of the projects.

**TABLE 12 CONFIDENTIAL DATASETS**

WP	Datasets	Accessibility within the Consortium
WP1-9	All deliverable reports except D1.1-D1.4 Quality Assurance Plan, D1.5-D1.8 Project Management Plan, D7.8-D7.10 European and local legal and non-legal limitations, barriers and standards for VIPRISCAR products, D8.4-D8.6 Data Management Plan, D8.11-D8.14 Dissemination and communication plan, D8.15 Project Website	Confidential, only for members of the consortium (including the Commission Services)
WP2-9	All data generated within the project	Accessible to the partners within the project
WP4	VIPRISCAR_WP4	The consortium will be given access to select portions of the dataset, mainly concerning test results.

Important remark for any partner intending to disseminate its results, it is obligatory to provide notice with sufficient information on the dissemination contents to other partners at least **45** days in advance to the dissemination. Other partners, if not agree, may object within **30** days after receiving the notification and should provide proper justification to explain the reason why its legitimate interests would be significantly infringed. In this case, appropriate

steps to solve the conflicts should take place; otherwise, the dissemination would not be able to further proceed.

### 3.3 Interoperability

The VIPRISCAR project aims to collect and document the data in a standardized way to ensure the datasets would be easy to understand, reuse and interoperate among different parties who are interested in utilizing them. Standard technical terminology will also be used to facilitate inter-disciplinary interoperability.

### 3.4 Reusability

Data reusability means the easiness to re-use the data for further researches or other purposes. In VIPRISCAR project, the datasets have high reusability in that normally no special methods or software is required to re-use the data. The time of reusability for those research data which will be made available to re-use is not yet defined.

The procedures to ensure the highest data quality and validity include internal reviews as well as peer reviews if the articles or documents would be published through scientific journals. Other specific procedures adopted by partners are listed below:

**TABLE 13 SPECIFIC QUALITY CONTROL PROCEDURES ADOPTED BY PARTNERS**

Partner Name	Standards
JOWAT	Good Laboratory Practices
AEP	International standards (ASTM, ISO, UL94 and others) and written internal procedures and testing methods

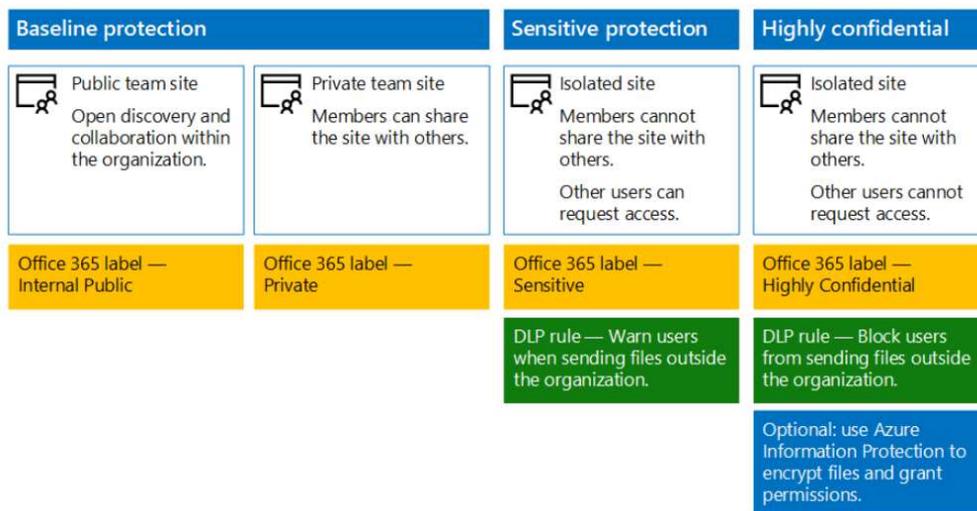
Additionally, quality control of data at different stages from data collection, data entry or digitalization, and data checking is crucial in the VIPRISCAR project in that many research experiments would be conducted throughout the lifetime of the project. Following measures referred to the Good Practice Note of Research Data Management (CGIAR, 2017) are offered as references for the consortium partners to follow in order to ensure data quality.

- ▶ Stage 1: Data collection
  - Calibrate the instruments to ensure the measurement accuracy
  - Take multiple measurements, observations, or samples to ensure the data reliability
  - Double confirm the truth of the record with adequate experts in the relevant domains
  - Unify standardized methods and standard operating procedures
- ▶ Stage 2: Data entry or Digitalization:
  - Set out validation rules in data entry software
  - Use controlled vocabularies, anthologies, code lists and choice lists to minimize the occurrence probability of human mistakes

- Follow the naming conventions for the variables including names, dates, versions to avoid confusion
- ▶ Stage 3: Data checking
  - Double check the coding accuracy and out-of-range values
  - Check data completeness, appropriate naming conventions used
  - Choose random samples to verify the consistency with original data
  - Conduct statistical analysis to detect if any errors or abnormal values exist

## 4. DATA SECURITY

Currently, the VIPRISCAR project considers using Microsoft’s SharePoint as the intranet/repository to manage, share, and collaborate for the data and documents related to the project. Three levels of configurations to balance between the security protection and the ease of collaboration are recommended based on the confidentiality level of the data and documents from baseline, sensitive, to highly confidential (as shown in Figure 2) (Microsoft, 2018). More details will be provided in the future versions of DMP if SharePoint is chosen.



**FIGURE 2 RECOMMENDED CONFIGURATIONS FOR SHAREPOINT**

Meanwhile, most of the consortium partners have their own provisions in place for data security within organizations (as listed in the Table 14 below).

**TABLE 14 DATA SECURITY PROVISIONS WITHIN PARTNER'S ORGANIZATION**

Partner Name	Data Security Provisions
TECNALIA	<ul style="list-style-type: none"> <li>▶ Access controls: Every worker in TECNALIA has his/her own password-protected user account to access the systems. The password must satisfy complexity requirements and shall be changed every 90 days. The access to networks folders and programs where information is stored/managed depends on user permissions which are decided by factors such as division, role in the company, role in the project, etc. The permissions are managed by administrators only and must be asked by authorized persons through authorized channels.</li> <li>▶ Backup: TECNALIA has two-level backup. The first level is the system “previous versions” service that allows a user to recover a copy of the work (5 copies a day, two weeks period) by his/her own. Moreover, every day TECNALIA makes full backup of the working information. There are daily, weekly, monthly and yearly copies. The recover from this backup requires a formal procedure.</li> </ul>

	<ul style="list-style-type: none"> <li>▶ Transfer of data: To transfer the information we can use platforms that require security protocols, such as OneDrive, SharePoint, or the “consigna” of TECNALIA, and we can use information protection tools such as Veracrypt and others.</li> </ul>
JOWAT	<ul style="list-style-type: none"> <li>▶ National regulations</li> </ul>
CIKAUTXO	To be determined
B4P	<ul style="list-style-type: none"> <li>▶ Regular server back-up of all data</li> </ul>
AEP	<ul style="list-style-type: none"> <li>▶ The data is stored in a firewalled and password-accessible server and in online password protected server(s).</li> <li>▶ Daily back-up on a stand-alone mirrored hard-drive.</li> </ul>
VERTECH	<ul style="list-style-type: none"> <li>▶ Using internal company server</li> <li>▶ Documents are automatically saved on the OneDrive. Historical copies could be access on the server</li> </ul>
EXERGY	<ul style="list-style-type: none"> <li>▶ Hardware (computers) purchased for performance, reliability and security. All of them are equipped with windows defender and are automatedly updated and password protected.</li> <li>▶ Password protected cloud-based central document storage is utilized for project documents, plus 2-step authentication protection for administrators.</li> <li>▶ Automatic file retention and regular electronic backups.</li> <li>▶ Email retention that are protected by password.</li> <li>▶ Guidance on safeguards provided for employees in the handbook which all employees are required to review.</li> <li>▶ Holding of and processing of all personal data in line with General Data Protection Regulation (GDPR) requirements.</li> </ul>
GAIKER	<ul style="list-style-type: none"> <li>▶ On-Premise: from the earlier stages of the project until it is considered a closed project, information access is granted only to the staff working directly on it; there is just a live copy of information, and several others in backup data; the backup data is encrypted and protected with random passwords of more than 50 positions. The passwords are kept in security boxes, with physical access controls in place.</li> <li>▶ Offsite copies: The access is restricted to the IT staff of the company, and the information is encrypted, so if someone else accesses by accident or intentionally to the information, it would be useless.</li> </ul>
LEITAT	<ul style="list-style-type: none"> <li>▶ Using internal server</li> </ul>

## 5. ETHICAL ASPECTS

The VIPRISCAR project partners are to comply with article 34 concerning ethics and research integrity principles in the GA.

- ▶ Ethical principles (including the highest standards of research integrity)
- ▶ Applicable international, EU, and national law

In the VIPRISCAR project, no ethical or legal issues that can have an impact on data sharing have been identified at current stage.

Important remark to be noticed that the EU GDPR regulation has been officially enforced on 25 May 2018, aiming to protect and empower all EU citizens personal data privacy as well as reshape the way organizations across the region manage data and proceed towards data privacy.

The GDPR is organized around seven key principles (European Commission, 2016):

- Lawfulness, fairness and transparency
- Purpose limitation
- Data minimization
- Accuracy
- Storage limitation
- Integrity and confidentiality (security)
- Accountability

**Personal data** is information that relates to an identified or identifiable individual (name, number, location, IP address...). Information which has had identifiers removed or replaced in order to pseudonymize the data is still personal data for the purposes of GDPR.

Hence, if any dataset that will be collected and/or generated in the VIPRISCAR project may involve data privacy issue, responsible partner should take notice of the following key changes in GDPR (GDPR.ORG, 2018)(European Commission, 2018) and ensure to be compliant with the regulations. Noteworthy, only the relevant changes have been listed below. The consortium shall comply with but not limit to those GDPR regulations if applicable.

- ▶ **Conditions for consent:** The request for consent must be provided in an intelligible and easily accessible form, along with the explanation of the purpose for data processing attached to that consent. The language used is required to be clear and plain instead of illegible terms or conditions full of legalese.

- ▶ **Increased territorial scope:** GRDP is applicable if at least one of the following conditions is met.
  - The personal data processing concerns data subjects in the EU
  - Personal data controller or processor is located in the EU, regardless of the exact location of processing taking place
- ▶ **Data subject rights:**
  - **Breach notification:** In case of any data breach that may “result in a risk for the rights and freedoms of individual”, the breach notification must be provided within 72 hours after becoming aware of a data breach.
  - **Right to access:** Data subjects are empowered to request confirmation with the data controller that if personal data concerning them is being processed, where and for what purpose and shall receive an electronic copy of personal data without additional cost.
  - **Right to be forgotten:** Data subjects have the right to demand the data controller to erase their personal data, cease further dissemination, and halt third-parties processing it upon condition that the data is no longer applicable for the original purpose for processing or the data subjects withdraw their consents.
- ▶ **Privacy by design:** Data controller shall include data protection into consideration from the very beginning of designing of systems. Appropriate measures shall be taken to protect the rights of data subjects, for instance only data which is considered necessary for completion of the tasks should be held and processed and only relevant personnel would be granted the access rights for data processing.

Recommendations on the right to be informed:

- ▶ Inform individuals about the collection and use of their personal data.
- ▶ Provide individuals with information including: The purposes for processing their personal data, the retention periods for that personal data, and who it will be shared with. It is called the ‘privacy information’.
- ▶ Provide privacy information to individuals at the time their personal data are collected from them.
- ▶ When you obtain personal data from a source other than the individual, you need to provide the individual with privacy information in less than a month. If you use data to communicate with the individual, you should provide privacy information at the latest when the first communication takes place
- ▶ When you collect personal data from the individual it relates to, you must provide them with privacy information at the time you obtain their data. you must tell people who you are giving their information to and give them an easy solution to opt out.
- ▶ The information you provide to people must be concise, transparent, intelligible, easily accessible, and it must use clear and plain language.
- ▶ It is often most effective to provide privacy information to people using a combination of different techniques including layering, dashboards, and just-in-time notices.

- ▶ User testing is a good way to get feedback on how effective the delivery of your privacy information is.
- ▶ You must regularly review, and where necessary, update your privacy information. You must bring any new uses of an individual's personal data to their attention before you start the processing.

The checklist (as shown in Table 15) suggests the information to provide when collecting personal data either from individuals directly or from other sources (ico., 2018).

**TABLE 15 CHECKLIST OF INFORMATION TO PROVIDE WHEN COLLECTING PERSONAL DATA**

What information do we need to provide?	
The name and contact details of your organization	
The name and contact details of your representative	
The contact details of your data protection officer	
The purposes of the processing	
The lawful basis for the processing	
The legitimate interests for the processing	
The categories of personal data obtained	
The recipients or categories of recipients of the personal data	
The details of transfers of the personal data to any third countries or international organizations	
The retention periods for the personal data	
The rights available to individuals in respect of the processing	
The right to withdraw consent	
The right to lodge a complaint with a supervisory authority	
The source of the personal data	
The details of whether individuals are under a statutory or contractual obligation to provide the personal data	
The details of the existence of automated decision-making, including profiling	

## 6. OTHER ISSUES

At current stage, most of the consortium partners including GAIKER, TECNALIA, AEP, LEITAT, VERTECH have reported no obligation to comply with additional specific national, funder, sectorial, departmental, or institutional data management policies.

Certain partners have informed using other procedures for data management:

- ▶ B4P: Funder regulation
- ▶ JOWAT: Data management software

More information may be updated in the future versions of the DMP (D8.5, due M24; D8.6, due M36) regarding the details of the specific policies followed by those partners as well as other possible issues related to data management if identified.

## 7. ALLOCATION OF RESOURCES

According to the guidelines provided by EU Commission (European Commission, 2018), costs related to open access to research data in Horizon 2020 programme are eligible for reimbursement during the project lifetime if the requirements in article 6 and article 6 D.3 as well as other articles relevant for the cost category chosen are met.

The planned budget dedicated to data management which is already foreseen in the GA as well as additional information provided by each partner have been gathered together in Table 16 below. This information might be completed or evolve in the future versions of the DMP (D8.5, due M24; D8.6, due M36) depending on the results of questionnaires collected from the consortium partners.

**TABLE 16 ALLOCATION OF RESOURCES**

Partner Name	Descriptions
TECNALIA	<ul style="list-style-type: none"> <li>▶ Open access articles (10k€)</li> <li>▶ Web page: web domain, picture, video, plugin... (2k€)</li> </ul>
EXERGY	▶ Cost related to open access and IPR (5k€)
LEITAT	▶ Publication in Open Access (5k€)

As for long-term preservation of the datasets, different internal policies of each partners are noted in Table 17 and will be updated in future versions of the DMP (D8.5, due M24; D8.6, due M36) based on the information provided by the consortium partners.

**TABLE 17 DATA LONG-TERM PRESERVATION POLICIES**

Partner Name	Planned Resources	Decision Maker for Data Preservation	Preservation Timeframe
TECNALIA	Yes	Project Manager of VIPRISCAR	10 years
JOWAT	Yes	Jowat	According to national regulation
CIKAUTXO	To be Determined	To be Determined	To be Determined
B4P	Yes	Board of B4plastics	At least 3 years after project termination
AEP	Yes	Project Manager	Indefinitely
VERTECH	No		
EXERGY	Yes	Project Manager and Head of department	To be confirmed
GAIKER	Yes	<b>Internal policies.</b> Project information will be preserved in several repositories. 1) On-Premise storage systems, as repositories for the information. 2) On-Premise copy of data, as a first backup copy of info.	<b>Internal policies.</b> Virtually forever. At least 2 copies of information will be preserved forever, as the company exists. <b>External repositories:</b> Depending on the repository,

		<p>3) Offsite copy of data (cloud providers, in Dublin and Frankfurt) as an external backup copy of data.</p> <p>4) External searchable scientific information repositories.</p>	<p>for example, if zenodo is used, it will maintain the information as CERN Laboratory exists (at the moment 20+ years guaranteed).</p>
LEITAT	No	Principle investigator of VIPRISCAR project	

## 8. EVOLUTION OF THE DATA MANAGEMENT PLAN THROUGHOUT THE PROJECT

This initial DMP will continuously evolve within the lifetime of the project and future versions will be provided in Deliverable 8.5 (due M24) and Deliverable 8.6 (due M36). New questionnaires will be circulated to the consortium partners in order to update all the identification of new datasets, changes of the already identified datasets or data management policy within the consortium (e.g. new innovation potential, decision to file for a patent) if necessary.

## 9. REFERENCES

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## 10. ANNEX

The following contents have been designed and distributed in the form of questionnaire to collect data management information from the consortium partners.

### ► Section 1: Data Summary

Please fill in the answers for the potential dataset your organization might generate or collect during the project.

**Notice: If you will have more than one dataset, please feel free to duplicate the table below till the numbers of dataset you need**

<b>Work Package</b>	<b>WP Choose an item. , Deliverable Click or tap here to enter text.</b>
<b>Dataset Name</b>	Click or tap here to enter text.
<b>Dataset Description</b>	<b>Please write a brief description of the dataset.</b> Click or tap here to enter text.
<b>Responsible partners</b>	<b>Who are the lead partners responsible for the dataset generation/collection?</b> Click or tap here to enter text.
<b>Purpose</b>	<b>What is the purpose of the data collection/generation and its relation to the objectives of the project?</b> Click or tap here to enter text.
<b>Type</b>	<b>What types of data will the project generate/collet?</b> Click or tap here to enter text.
<b>Format</b>	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
<b>Volume</b>	Expected Size: Click or tap here to enter text. GB <input type="checkbox"/> MB <input type="checkbox"/> Number of files: Click or tap here to enter text.
<b>Source</b>	<b>What is the origin of the data? How the dataset is generated/collected?</b> Click or tap here to enter text.
<b>IPR Owner</b>	Click or tap here to enter text.
<b>Re-use existing Data</b>	<b>Will you re-use any existing data? Yes <input type="checkbox"/> No <input type="checkbox"/></b> <b>If yes, how will you use?</b> Click or tap here to enter text.
<b>Beneficiary</b>	<b>To whom will the data be useful?</b> Click or tap here to enter text.
<b>Keywords</b>	<b>The keywords associated with the dataset.</b> Click or tap here to enter text.
<b>Version number</b>	<b>Will you provide clear version number to keep track of changes to the dataset?</b>



This project has received funding from the Bio Based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 790440. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio Based Industries Consortium.

	Yes <input type="checkbox"/> No <input type="checkbox"/>
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► **Section 2: FAIR Data**

► **2.1 Making data findable, including provisions for metadata**

1. Are the datasets your organization generated/collected discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. Digital Object Identifiers?)

Click or tap here to enter text.
----------------------------------

2. Does your industry use any standards to identify for this type of datasets?

a) If yes, which ones?

Click or tap here to enter text.
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b) If no, what metadata do you suggest? Please outline what type of metadata will be created and how.

Click or tap here to enter text.
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3. What naming conventions do you follow?

Click or tap here to enter text.
----------------------------------

► **2.2 Data accessibility and re-use**

4. Which data produced and/or used in the project will be made openly available as the default?

**Notice: If you will have more than one dataset, please feel free to duplicate the table below till the numbers of dataset you need. But if there are multiple datasets using same way to access and requiring same method/software, please simply write down the names of dataset in the same box.**

<b>Dataset(s)</b>	Click or tap here to enter text.
<b>How to access</b>	<b>How will the data be made accessible (e.g. by deposition in a repository)?</b> Click or tap here to enter text.
<b>Methods/Software needed</b>	<b>Is any specific methods or software needed in order to access this dataset?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> <b>If yes, what are they?</b> Click or tap here to enter text.
<b>Permit for re-use</b>	<b>How will the data be licensed to permit the widest re-use possible?</b>

	Click or tap here to enter text.
<b>Time for re-use</b>	<b>When will the data be made available for re-use? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply.</b> Click or tap here to enter text.
	<b>How long is it intended that the data re-usable?</b> Click or tap here to enter text.

5. Is there any dataset that cannot be shared or needs to be shared under restrictions?  
*Notice: If you will have more than one dataset for this question, please feel free to duplicate the table below till the numbers of dataset you need*

<b>Dataset(s)</b>	Click or tap here to enter text.
<b>Status</b>	Cannot be shared <input type="checkbox"/> Sharable under certain restrictions <input type="checkbox"/>
<b>Why</b>	(Please separate legal and contractual reasons from voluntary restrictions) Click or tap here to enter text.
<b>Access</b>	<b>Access for the consortium</b> <b>What's the accessibility within the consortium?</b> Click or tap here to enter text.

6. Do you use any specific process to ensure the data quality?

Click or tap here to enter text.

### ► 2.3 Data interoperability

7. Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc.?

Click or tap here to enter text.

8. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?

Click or tap here to enter text.

9. Will you provide mappings to more commonly used ontologies if you use uncommon or generate project specific ontologies or vocabularies?

Click or tap here to enter text.

### ► Section 3: Allocation of Resources

10. Did you plan a budget for data accessibility (such as publication fees in open access journals) in the project budget?

*Remind: Costs related to open access to research data are eligible as part of the H2020 grant if compliant with the GA conditions.*

Click or tap here to enter text.

11. Long-term preservation of the data:

a) Did you plan resources for long term preservation of the data, even after the end of the project?

Yes  No

b) Who decides what data to keep?

Click or tap here to enter text.

c) For how long?

Click or tap here to enter text.

► **Section 4: Data Security**

12. What provisions are in place for data security within your organisation?

Click or tap here to enter text.

► **Section 5: Ethical Aspects**

13. Are there any ethical or legal issues that can have an impact on data sharing?

Click or tap here to enter text.

14. Is informed consent for data sharing and long-term preservation included in questionnaires dealing with personal data (if applicable)?

Yes  No

15. Do you make use of other national/funder/sectorial/departmental procedures for data management?

Yes  No

If yes, which ones?

Click or tap here to enter text.

► **Others**

16. Do you have any query or recommendation for VIPRISCAR's Data Management Plan?

Click or tap here to enter text.



## CONTACT DETAILS

Ana DUBOIS

WP8 Leader, VERTECH

[www.vipriscar.eu](http://www.vipriscar.eu)