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BLUE MISSION MED

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D1.2 – DATA AND ETHICS MANAGEMENT PLAN

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Authors	Maria Elena Martinotti, Ilja Richard Pavone
Reviewers	Luigi Mazari Villanova, Kaliopi (Popi) Pagou

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Project Summary

The Mission Restore our Oceans and Waters by 2030 provides a holistic and coherent framework for developing a systemic approach to the depollution and regeneration of the basin hydrosphere, which is a striking need in the Mediterranean Sea (MED).

In the BlueMissionMed project, a multi-actor, trans-sectorial and multidisciplinary consortium, consisting of 6 R&I public institutions, 6 NGOs, 2 industrial associations and 2 SMEs from 5 Member States and 2 Associated Countries of the MED, proposes to set up, structure and empower a MED Lighthouse supporting the development and deployment of transformative innovative technological, social, business and governance solutions for ensuring a 30-50% reduction of pollution of the basin hydrosphere by 2030. It will be an interactive multi-actor digital platform able to offer to all MED Countries/Regions and stakeholders to access the necessary knowledge and tools. It will build on, connect and structure existing initiatives and activities, including the 9 Pilot BLUEMED on plastics free healthy MED and will exploit the R&I and policy knowledge generated by the funded projects/initiatives on the MED decontamination and restoration, ultimately promoting basin-wide cooperation, commitment and deployment of solutions addressing the Mission objectives. The BlueMissionMed CSA will also ensure:

- coherence, alignment and monitoring of EU, national and local policies, initiatives and actions ongoing the MED basin;
- an effective provision of technical services, governance and business models to support and guarantee a sustainable socio-economic development of the basin;
- a well-functioning basin scale innovation ecosystem attractive towards investors and businesses;
- the required engagement of the society at large, thanks to a robust awareness raising and citizen science approach in its implementation in the sea basin and beyond;

the effective deployment of Mission Implementation Charter and piloting of the Mission objectives for the MED by 2025.

Disclaimer

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Nature of the deliverable:		*
Dissemination Level		
PU	Public, fully open, e.g. web	x
CL	Classified, information as referred to in Commission Decision 2001/844/EC	
CO	Confidential to BlueMissionMed project and Commission Services	

* R: Document, report (excluding the periodic and final reports)

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

OTHER: Software, technical diagram, etc.

EXECUTIVE SUMMARY

This document is the first version of a living document that is expected to mature during the BlueMissionMed project lifetime and will be updated accordingly. The Data and Ethics Management Plan (DEMP) describes the data management life cycle for the data to be collected, processed and/or generated and made available by this HE project. As part of making data findable, accessible, interoperable and re-usable (FAIR), the DEMP will include information on:

- the handling of data during and after the end of the project;
- what kind of data will be collected, processed or generated;
- which standards will be applied;
- how data will be eventually shared
- any ethical issue that may arise.

This deliverable contains the project policy for data management and ethics as agreed by partners and it has been prepared with the collaborative work of the Coordinator, the Project Manager, the Data Manager, the Ethical Advisor and the Consortium Partners who will be involved in data collection, process and storage. The described data policy is consistent with the statements regarding data management as contained in the current BMM Consortium Agreement (CA) and in the Grant Agreement (GA), in particular Annex 5.

The present deliverable is the result of Task 1.2 belonging to WP1 "Coordination and Management" and is submitted four months after the start of the project, as required by the European Commission, in accordance with the Regulation (EU) 2016/6791, the European Union's new General Data Protection Regulation ('GDPR').

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List of Acronyms/Abbreviations

Acronym/Abbreviation	Title
PMT	Project Management Team
PC	Project Coordinator
PM	Project Manager
GA	Grant Agreement
CA	Consortium Agreement
PO	Project Officer from CINEA
CSA	Coordination and Support Action
BMM	BlueMissionMed
DB	Database
EC	European Commission
WPs	Work Packages
LH	LightHouse
MED	Mediterranean Basin
TBD	To Be Defined
HE	Horizon Europe
DM	Data Manager

1 AIM OF THE DELIVERABLE

The BMM Data and Ethics Management Plan (DEMP) describes the data management life cycle for the data to be collected, processed and/or generated by the project, as a HE project.

The DEMP will define the management strategy of data generated during the project with the purpose of making research data findable, accessible, interoperable, and re-usable (FAIR). According to the Grant Agreement and Consortium Agreement, the DEMP will involve all partners and will be prepared by the Data Manager appointed by CNR.

This document will include the Ethics and Legal section (see paragraph §8) which will provide elements necessary to show compliance with research ethics principles.

The task will be supervised by the Independent Ethic Advisor, Dr. Ilja Richard Pavone, appointed by CNR. In particular the supervision will address the following aspects:

i. HUMAN PARTICIPATION. The project aims to co-create the LH "Operational Implementation Roadmap" with the stakeholders. It will engage with MED associations of plastics producers and transformers, farmers, fishermen, and aquaculture producers along with those of marine transporters, cruise, port authorities and the municipalities from many non-EU countries.
ii. DATA PROTECTION. Many stakeholders from non-EU countries (Turkey, Tunisia, Morocco, Egypt) will be participating in the project, personal data protection must be ensured, specifically regarding the transfer of personal data between countries and especially in countries where GDPR does not apply.

1.1 Structure of the deliverable

This document is structured following the guideline of HE Programme Guide FAIR data management, including the following information:

- Data management guiding principles;
- Data Manager;
- Descriptions of BMM type of data;
- Description of FAIR DATA characteristics including DEMP Review Process & data inventory;
- Allocation of resources;
- Data security;
- Ethical and Legal aspects;
- Conclusions.

2 POLICY FOR DATA MANAGEMENT

The general outline for the project policy for data management (i.e., collecting and sharing procedures), is including the following themes:

- Outline the types of data already generated and/or foreseen to be generated by the project, including the context and procedures behind data generation;
- Specify data degree of privacy and confidentiality;
- Outline those procedures that will be followed to assess the generated/collected data with respect to their sensitiveness;
- Outline data acquisition plan for the duration of the project.

The European Commission aims to ensure that all HE projects are guided by ethical considerations. Central issue in research ethics is personal data protection, where personal data is information that relates to an identified or identifiable natural person. More specifically, 'identifiable natural person' is one who can be identified, directly or indirectly, by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person. Protection of personal identifiable information of European citizens is regulated by GDPR.

In research settings, data protection imposes obligations on researchers to provide research subjects with detailed information about what will happen to the personal data that they collect. It also requires the organisations processing the data to ensure the data are properly protected, minimised, and destroyed when no longer needed (Ethics and data protection, by European Commission, DG Research and Innovation).

This Data and Ethics Management Plan (DEMP) has been prepared by considering the template of the:

- "EU Grants- HE Programme Guide: V2.0 – 11.04.2022". *https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf*
- The DMP template available at: *https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/reference-documents;programCode=HORIZON*
- The DEMP is an official project Deliverable (D 1.2) due in Month 4, but it will be updated throughout the project. The first initial version will evolve depending on significant changes arising and periodic reviews at relevant reporting stages of the project.
- The consortium complies with the requirements of Regulation (EU) 2016/679 and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General Data Protection Regulation). Guidance on how these regulations interact with open-access data policy can be found here: https://www.openaire.eu/ordp/
- Type of data, storage, confidentiality, ownership, management of intellectual property and access: procedures that will be implemented for data collection, storage, access, sharing policies, protection, retention and destruction will be in line with EU standards as described in the Grant Agreement and the Consortium Agreement.

3 ROLES AND RESPONSIBILITY

3.1 Data Manager

The Data Manager (DM), Dr. Maria Elena Martinotti, appointed by CNR, will coordinate the data management of the Project to assure usability, accountability and quality of the data and valorise it, either by using it for other market applications, when possible and relevant, of by making the open to the scientific community. The DM will thus lead the DEMP by implementing and overviewing the DEMP methodology to assure good data management and valorisation.

4 BMM DATA SUMMARY

All BMM datasets are reported in the current chapter. Being a project that brings together multiple types of data with multiple levels of dissemination, for readability purposes the following data tables have been divided via work packages. A brief description of each work package objectives is included at the beginning of each section to correctly focus the theme and related data.

The different types of data produced by the project can be grouped across the following categories:

i. **Documentation material**: i.e. transcripts and agendas of meetings, reports, non-structured data etc.
ii. **Compiled data**: i.e., stakeholder database, etc.

Specific dispositions that must be respected, are contained in Chapter V ('Transfers of personal data to third countries or international organisations'). According to Article 45 GDPR "transfer of personal data to a third country or an international organisation may take place where the Commission has decided that the third country, a territory or one or more specified sectors within that third country, or the international organisation in question ensures an adequate level of protection." Therefore, the Commission must evaluate whether the non-EU country's level of protection is deemed appropriate.

The tables have been organized as follows (see Specific dispositions that must be respected, are contained in Chapter V ('Transfers of personal data to third countries or international organisations'). According to Article 45 GDPR "transfer of personal data to a third country or an international organisation may take place where the Commission has decided that the third country, a territory or one or more specified sectors within that third country, or the international organisation in question ensures an adequate level of protection." Therefore, the Commission must evaluate whether the non-EU country's level of protection is deemed appropriate.

ANNEX 1 - TABLE TEMPLATE for table template). For each row we have the following mandatory information (in green):

- Dataset Summary
- Data Description
- Data Type (e.g. video, compiled etc.)
- Data Format (e.g. Jpeg, TIFF, pdf, etc.)
- Data Provider
- Data source (e.g. ArcGIS, lab equipment, etc.)
- Data size classes (e.g. < 100 MB, 100 MB to 1 GB, > 1GB)
- Data Access rights (e.g. only for internal usage, public, etc.)
- Online repository/storage (e.g. zenodo, github etc.)
- Temporal coverage available
- Data Availability
- Metadata Available
- Standards applied

Whenever feasible we collect this optional information (in blue):

- Existing/Foreseen Data
- Analysis
- Tools
- Future Data

4.1 Data for WP1

Being the BMM project coordination and management work package, this WP will mainly collect documentation materials such as meeting minutes and reports, see Table 1. This deliverable is part of WP1, as task 1.2.

COMPULSORY												
Data Summary	**Data description**	**Data type**	**Data Format**	**Provider**	**Data Source**	**Data size classes**	**Data access Rights**	**Online Repository /Storage**	**Temporal Coverage available**	**Data Availability**	**Metadata Available**	**Standards Applied**
Recording of meetings	recording of teleconferences, webinars and discussions held among the Consortium parties	multimedia	mp4	CNR	Teams	> 1GB	internal use	Teams	2023-2025	new data	not yet decided	
Minutes of meeting	trnscript of meetings	documents	doc	CNR	NA	< 100 MB	internal use	Teams	2023-2025	new data	not yet decided	
Agendas of meetings		documents	doc, pdf	CNR	NA	< 100 MB	internal use	Teams	2023-2025	new data	not yet decided	

Table 1 BMM Data Types for WP1

4.2 Data for WP2

The objectives of WP2 are:

i. to set up an effective, participatory and flexible LH structure which fits the purpose of support and accompany the Mission values, objectives and implementation;
ii. to co-create the "Operational Implementation Roadmap" with core stakeholders of the basin joining the "Board of the Ecosystem Enablers";
iii. to set-up and structure a network of National/Regional Hubs involved in the implementation of BlueMissionMed activities in the different basin territories;
iv. to identify, engage and mobilise other LH Ecosystem Enablers and Stakeholders (i.e. facilitators, connectors and multipliers).

WP2 expected deliverables that will process data are listed in Table 2.

Del. n.	Deliverable name	Lead participant	Type	Dissemination level	Due date
D2.5	LH stakeholder engagement and Ecosystem Enablers report (including databases)	*SDG4MED*	*R, O*	PU	M18, M36

Table 2 WP2 expected deliverable with data.

To carry out the above activities, data listed in Table 3 will be collected.

COMPULSORY													IF APPLICABLE			
Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied	Existing/Foreseen Data	Analysis	Tools	Future Data
conference/events	recording of teleconferences, webinars and discussions	multimedia	mp4	CNR	Teams	> 1GB	internal use	Teams	2023-2025	new data	not yet decided		NA	NA	NA	NA
Registration form	name, surname, emails, position held in the institution, stakeholder typology	documents	doc	CNR	NA	< 100 MB	internal use	Teams	2023-2025	new data	not yet decided		NA	NA	NA	NA
Stakeholder database	list of stakeholders per cathegoryes	documents	excel, word	CNR	NA	< 100 MB	internal use	Teams	2023-2025	new data	not yet decided		Mission Charter	NA	NA	NA

Table 3 BMM Data Types for WP2

4.3 Data for WP3

The objectives of WP3 are:

i. to develop, make publicly available and curate a catalogue of projects and initiatives funded at EU, https://www.marlice2022.org/es/home-es#marlice2022 national and regional level on the OIR priorities, including privately funded initiatives and projects;
ii. to systematically link up, coordinate and network with current projects and future projects/initiatives on OIR priorities under future Work programme topics;
iii. to maximise the awareness and exploitation of previous and ongoing OIR relevant projects and initiatives founded at EU, national and regional level;
iv. to frame innovative OIR relevant transformative solutions;
v. to frame gaps, barriers, resistances and needs to provide recommendations for innovative transformative solutions implementation in the OIR domains.

WP3 expected deliverables that will process data are listed in Table 4.

Del. n.	Deliverable name	Lead participant	Type	Dissemination level	Due date
D3.1	Catalogue of projects and initiatives	*ECORYS*	*O*	PU	M12, M36
D3.2	BlueMissionMed network of projects	*FVA*	*O*	PU	M36
D3.4	Portfolio of selected innovative, transformative solutions	*HCMR*	*R*	PU	M18

Table 4 WP3 expected deliverables with data.

To carry out the above activities, data listed in Table 5 will be collected.

COMPULSORY													IF APPLICABLE			
Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied	Existing/Foreseen Data	Analysis	Tools	Future Data
EU projects and Initiatives	internet links		xls, pdf	Ecorys; HCMR; FVA			internal	NA	lifespan of project	existing	No		existing data	descriptive analysis		
interviews & meetings	questionnaires on line meetings interviews workshops reports MML workshops reports recordings Transcripts	audio and video recording, transcripts	pdf, mp4, xls, csv, pdf	Ecorys; HCMR; FVA; CPMR	interviewees, participating stakeholders	1GB<	internal / available on request (upon anonymisation)	Zenodo (anonymised data)	lifespan of project	new	YES	SRQR (Standards for Reporting Qualitative Research) DOI: 10.1097/ACM.0000000000000388	foreseen	Contextual and statistical analysis	interviews, questionnaires, workshops	
list of solutions	internet links and recordings	analysis of projects and of interviews /meetings/workshops	xls, pdf	Ecorys; HCMR; FVA; CPMR			open	NA	lifespan of project	new	No		foreseen	descriptive analysis		

Table 5 BMM Data Types for WP3

4.4 Data for WP4

The objectives of WP4 are:

i. to design, implement and make available a coherent catalogue of services to empower and support the target stakeholders, along all the ontology dimensions, towards the deployment of OIR relevant transformative innovative solutions;
ii. to activate the LH to play the role of ecosystem facilitator to enable systemic OIR implementation in the MED basin;
iii. to leverage the LH multidimensional expertise to provide (on-site and remote) support, increase stakeholders' capacities and facilitate networking for the OIR and the Mission implementation.

WP4 expected deliverables that will process data are listed in Table 6.

Del. n.	Deliverable name	Lead participant	Type	Dissemination level	Due date
D4.1	LH multidimensional catalogue of services and experts	*SCP/RAC*	*R*	PU	M32

Table 6 WP4 expected deliverables with data.

To carry out the above activities, data listed in Table 7 will be collected.

COMPULSORY												
Type of activity (according to GA)	Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied
Facilitating the Systemic transformation of the MED Ecosystem	LH multidimensional catalogue of services and experts	Collection of knowledge, capacities, technical mentoring, businessmodels, social engagement and policies, responding to the needs, opportunities, gaps,barriers and resistances identified	Document, report	doc,pdf, ppt,csv,xls	ARC main contributor SDG4MED, BUSINESSMED,and all partners	Consortium know-how, partners contribution etc.	>1GB	Public	Consortium repository	Always available	New data		
	Database of Knowledge	Collection of knowledge, ressources, MOOC…	Document	CSV,XLS	ARC &All partners	Consortium know-how, partners contribution etc.	>1GB	Internal	Consortium repository	Always available	Existing data		
	Database of mentors	Contact list of experts & mentors	Document	CSV,XLS	ARC &All partners	Partners contribution	>1GB		Consortium repository	Always available	Existing data		
Support Technology and Innovation deployment Ecosystem	Report on LH in Action: empowerment and support activities	The report will describe the empowerment and support activities	Document, report	doc,pdf, ppt,csv,xls	BUSINESSMED &all partners	Consortium know-how, partners contribution etc.	>1GB	Public	Consortium repository	Always available	New data		
Support the capitalization of technology and business models	Recommendations to drive systemic transformative changes social, business, governance) (technological,	Collection of relevant recommendations	Document, report	doc,pdf, ppt,csv,xls	Ecorys &all partners	Consortium know-how, partners contribution etc.	>1GB	Public	Consortium repository	Always available	New data		
Support access to Finance	Database of financialactors	Collection of networks of investors, venture capital funds	Document	CSV,XLS	Ecorys &all partners	partners contribution etc.	>1GB	Internal	Consortium repository	Always available	Existing data		
Support Societal engagement	Database of Initatives	Collection ofthe initiatives involving citizens in transformative actions(e.g.clean beaches,citizen science,etc)	Document	CSV,XLS	FVA &all partners	partners contribution etc.	>1GB	Internal	Consortium repository	Always available	Existing data		
	Database of BlueMissionMed Champions and Young Ambassador	Collection of famous people, influencersor young activists	Document	CSV,XLS	FVA &all partners	partners contribution etc.	>1GB	Internal	Consortium repository	Always available	Existing data		
Support to Policy	Database of policymakers	Contact list of Policymakers	Document	CSV,XLS	CPMR &all partners	partners contribution etc.	>1GB	Internal	Consortium repository	Always available	Existing data		

Table 7 BMM Data Types for WP4

4.5 Data for WP5

The objectives of WP5 are:

i. to contribute to monitoring of Mission implementation and achievements in the LH area;
ii. to ensure cross-fertilisation among HE Missions and HE Partnerships;
iii. to effectively transfer knowledge and good practices for implementation of Mission objectives to Countries/Region/Cities beyond the 7 BlueMissionMed Countries;
iv. to consolidate the BlueMissionMed experience and lessons learned into recommendations for transferability and replicability of BlueMissionMed experience and models;
v. to define the exploitation and sustainability of the LH.

WP5 expected deliverables that will process data are listed in Table 8.

Del. n.	Deliverable name	Lead participant	Type	Dissemination level	Due date
D5.1	Monitoring data for the Mission Implementation Platform	*HCMR*	*R, O*	PU	M12 M24 M36
D5.5	Catalogue of exploitable assets	*SCP/RAC*	*R*	PU	M34

Table 8 WP5 expected deliverables with data.

To carry out the above activities, data listed in Table 9 will be collected.

COMPULSORY													IF APPLICABLE			
Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied	Existing/Foreseen Data	Analysis	Tools	Future Data
e.g. minutes, salinity measurements, temperature measurements etc..	e.g. image DB, recording of conferences etc.	e.g. in-situ, lab analysis of literature, experimental, images, video, compiled, unstructured etc	e.g. mp4, doc, pdf, ppt, csv, xls, shapefile, SQL DB etc	partner providing data	e.g. lab equipment, datasheet, ArcGIS, Consortium know-how, partners contribution etc.	e.g. >1GB, <100 MB etc	e.g. internal, open, available on request etc.	e.g. zenodo, github etc.	e.g. 1 year, 1 week, lifespan of project etc.	new data/existing data	yes/no	e.g. INSPIRE etc.	existing data/ foreseen data	e.g. Aggregated data, descriptive analysis etc.	e.g. interviews, risk assessment tools, etc.	e.g. quantitative economic data etc.
Minutes of WP5 meetings	Digital meetings recording upon agreement of participants	Reports powerpoints and video	ppt, doc pdf etc ...	WP5 partners	Partners contribution	<100 MB	open	NA(share point)	lifespan of project	New and existing	no	NA	To be defined	NA	NA	NA

Table 9 BMM Data Types for WP5

4.6 Data for WP6

The objectives of WP6 are:

i. to design the strategy and tools for Communication, Dissemination and Outreach activities, to maximise the expected outcomes and impacts;
ii. to disseminate the project's results to the intended target audiences;
iii. to increase awareness about the Mission and promote the emotional connection and involvement of citizens in its implementation;
iv. to transform the BlueMissionMed results in Actionable Knowledge, ready to be used by the partners, ecosystem enablers and National/Regional stakeholders;
v. to design the LH online platform to facilitate the access to knowledge and good practices.

WP6 expected deliverables that will process data are listed in Table 10.

Del. n.	Deliverable name	Lead participant	Type	Dissemination level	Due date
D6.4	BMM online platform	*BUSINESSMED*	*O*	PU	M12

Table 10 WP6 expected deliverables with data.

To carry out the above activities, data listed in Table 11 and Table 12 will be collected.

COMPULSORY													
Type of activity (according to GA)	Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied
Communication, dissemination and outreach strategy	Database of partners' and relevant actors ('e.g. Mission Ocean, other CSAs..) C&D&O channels	Collection of partners' and relevant actors' C&D&O channels (e.g. website, social media, newsletters)	Links	xls	All partners	Partners contribution	200 Kb	Public	Consortium repository	Lifespan of project	Existing data	NA	NA
	Database of partners' networks	Collection of partners' networks to be leveraged for C&D&O	Data of the networks, links	xls	All partners	Partners contribution	200 Kb	Internal and confidential	Consortium repository	Lifespan of project	Existing and new data	NA	NA
	Database of relevant events for BMM	Collection of relevant events to be connected with BMM activities with identification of partners' role in such events (e.g. participant, speaker, organizer..)	Data of the events, links	xls	All partners	Partners contribution	200 Kb	Public	Consortium repository	Lifespan of project	Existing and new data	NA	NA
	C&D&O reports	Reports of partners' activities contributing to the communication and dissemination and outreach of the project.	Both qualitative and quantitative data (data collection based on the EC participant portal template, e.g. number of participants), pictures of events for evidences	xls, jpeg, png, doc	All partners	Partners contribution	500 Mb	Internal and confidential	Consortium repository and EC participant portal, CORDIS and other EC repositories, website	Lifespan of project and 5 years after	New data	NA	NA
Communication, dissemination and outreach tools	Promotional materials	Brochures, slides, posters, roll-ups, banners, press releases, newsletters, publications, graphical layout of framing materials, infographics and factsheets, social media profiles, social media info-edu cational cards, campaigns, social-media contents, website contents etc.	The data can be textual and graphical.	ppt, pdf, doc, jpeg, png	FVA	Consortium know-how, Project results and outcomes, Partners contributions	1GB	Public	Consortium repository, partners channels and repositories, website, social media	Lifespan of project and 5 years after	Existing and new data	NA	NA
	Innovative promotional tools and spotlight videos	Video interviews with MED Ambassadors and winners of the Society4Med Award and Ecosystem Enablers. Spotlight videos to promote inspirational good practices from technological, social, business, governance through storytelling.	Video	mp4	FVA	Stakeholders involved in BMM activities	100 GB	Public	Consortium repository, partners channels and repositories, website, social media	Always available	New data	NA	NA
	Actionable knowledge factsheets	Actionable Knowledge Factsheets along the Ontology dimensions, ready to be implemented by the stakeholders, speaking their "language" (technological, social, business, governance)	The data can be textual and graphical.	pdf, doc, jpeg, png, ai	FVA	Stakeholders involved in BMM activities	300 MB	Public	Consortium repository, partners channels and repositories, website, social media	Always available	New data	NA	NA
	Book for kids "Our blue treasure."	Book for kids "Our blue treasure" to teach to the young generation the importance of the sea for the ecosystems, the pressures, risks and challenges, and the role that everybody should have to protect the blue treasure. The book for kids is a tailor-made book for children (age 6-10) based on a scientific literature review in order to develop the narrative to make the children aware about the Mission themes.	The data can be textual and graphical. Name and organization of the scientific committee, authors, graphic illustrators.	pdf, ai	FVA	Scientific literature review, scientific committee, consortium know-how, illustrators know-how	1GB	Public	Website and dedicated online page	Always available	New data	NA	NA

Table 11 BMM Data Types for WP6 – part I

COMPULSORY													
Type of activity (according to GA)	Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied
Communication, dissemination and outreach activities	Website and social media analytics	Analytic data related to BMM website and social media platforms	Quantitative data (e.g. unique visitors, followers, impressions..)	online consultation,doc, xls,png,jpeg	FVA	Website and social media analytics took	400 KB	Internal	Consortium repository	Lifespan of project and 5 years after	New data	NA	NA
	Database of stakeholders	Collection of relevant stakeholders to be involved in BMM activities	Data of stakeholders (e.g. name and surname, e mails,organization,type of stakeholder,country, interests,..),links	xls	All partners	Partners contribution,desk research, spontaneous expression of interest through website and registration/participation to events,third-parties suggestions, newsletter subscriptions, large scale exhibitions participants	500 KB	Internal	Consortium repository	Lifespan of project	Existing and new data	NA	NA
	Methodologies for stakeholder engagement	Methodologies to engage and animate the discussion,mutual learning,good practices exchange and co-creation among BMM stakeholders	Texts, tables and images	pdf,doc,jpeg,png, ai	SDG4MED, FVA,ECORYS, BUSINESSMED, MEDCITIES, WWF,METU, MEDCRUISE, CNR,All partners	Consortium know-how	500 KB	Public	Consortium repository,CORDIS and other EC repositores, website	Lifespan of project and 5 years after	Existing and new data	NA	NA
	Outcomes of stakeholder engagement activities	Outcomes of these activities (gaps still to be addressed, good practices collection, innovative transformative solutions collection, recommendations)	Texts, tables and images, Miro board contributions, Mentimeter contributions, stakeholders' (speakers) presentations	pdf,doc,jpeg,png, ai,ppt	All partners	Stakeholders involved in BMM activities	500 KB	Public	Consortium repository,CORDIS and other EC repositores, website	Lifespan of project and 5 years after	New data	NA	NA
LH online platform	Online platform data	Stakeholders data connected to registration to the platform , outcomes of stakeholder engagement activities inside the platform ,log files connected to stakeholders activities	Stakeholders personal data,contents, log files	jpg, html,log files	BUSINESSMED	Stakeholders involved in the online platform	500 KB	upon registration	LH online Platform	Lifespan of project and 5 years after	New data	NA	NA
DELIVERABLES	The data that will be inserted in WP6 deliverables are already covered in the above categories.												
TECHNICAL REPORT	For reporting purposes some data related to WP6 activities will be provided in the technical report	Reports of partners' activities contributing to the communication and dissemination and outreach of the project.	Both qualitative and quantitative data (data collection based on the EC participant portal template, e.g. number of participants), pictures of events for evidences	doc	All partners	Partners contribution	10 MB	Internal and confidential	Consortium repository and EC participant portal, CORDIS and other EC repositores, website	Lifespan of project and 5 years after	New data	NA	NA

Table 12 BMM Data Types for WP6 - part II

5 BMM FAIR DATA PRINCIPLES

BMM will manage data in accordance with the principles of FAIR data management[1] (Findable, Accessible, Interoperable and Re-usable data) The project aims to maximise access to, and re-use of research data generated by the project. At the same time, there are datasets, or parts of datasets, generated in this project that cannot be shared in order to protect the privacy of participants in the project.

The FAIR data principle should support the exchange of scientific data and lead to knowledge discovery and innovation. The FAIR data approach is described in Table 13 and Figure 1.

Principle	Definition 2
Findable	*Data and metadata should be easy to find by both, humans and computer systems. Basic machine-readable descriptive metadata allows the discovery of interesting data sets and services*
Accessible	*Data and metadata should be stored for the long term such that they can be easily accessed and downloaded or locally used by machines and humans using standard communication protocols.*
Interoperable	*Data should be ready to be exchanged, interpreted and combined in a (semi)automated way with other data sets by humans as well as computer systems.*
Reusable	*Data and metadata are sufficiently well-described to allow data to be reused in future research, allowing for integration with other compatible data sources. Proper citation must be facilitated, and the conditions under which the data can be used should be clear to machines and humans.*

Table 13 FAIR data principle

[1] https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf

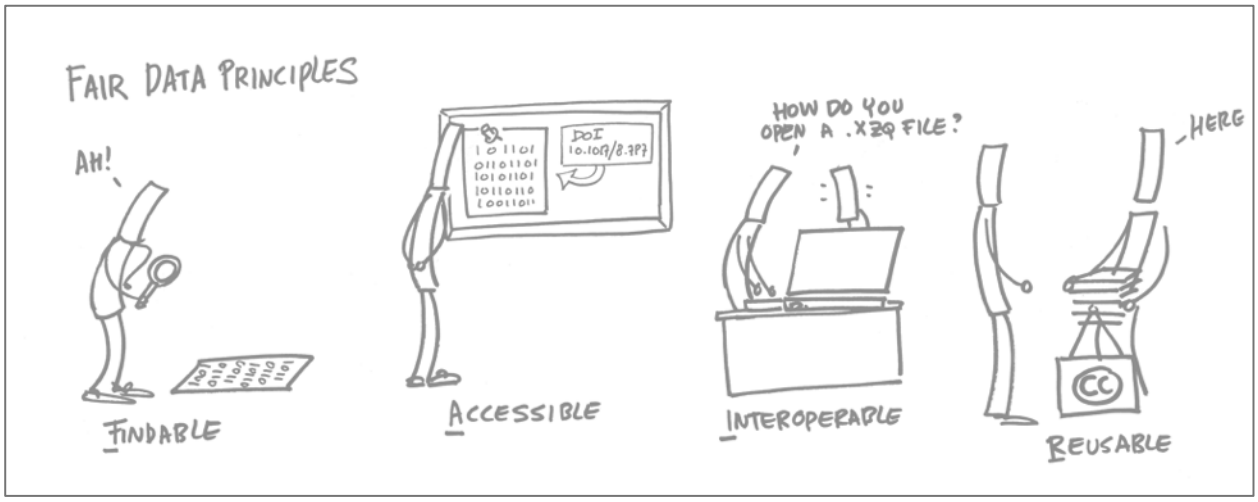

Figure 1 FAIR principle (https://book.fosteropenscience.eu/)

5.1 Making data findable

Following HE Programme Guide[2], generated data should have **Persistent Identifiers (PIDs)**. PIDs are key in ensuring the findability of research outputs, including data. They are globally unique and long-lasting references to digital objects (such as data, publications and other research outputs) or non-digital objects such as researchers, research institutions, grants, etc. Frequently used persistent identifiers include digital object identifiers (DOIs), Handles, and others.

To enhance the findability of research outputs, and their potential reuse, standardised metadata frameworks are essential, ensuring that data and other research outputs are accompanied by rich metadata that provides them with context.

5.2 Making data accessible

Data should be deposited in a trusted repository as soon as possible after data production and at the latest by the end of the project. Data underpinning a scientific publication should be deposited at the latest at the time of publication and in line with standard community practices. Trusted repositories assume a central role in the Horizon Europe for the deposition of and access to publications and research data.

Examples of general-purpose repositories for multidisciplinary research results including data, software and publications are:

- www.zenodo.org - general-purpose repository for data, software and publications
- https://figshare.com/ – repository for any research outputs of all file formats

[2] https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf

- open science Framework (OSF) - open source project management tool and repository.

The BMM project, as other beneficiaries of HE, has to ensure open access to data generated by the project under the principle 'as open as possible and as closed as necessary'. This means that data is in principle open unless beneficiaries decide to restrict access to some or all their research data for legitimate reasons.

5.3 Making data Interoperable

To be interoperable, metadata should use a formal, accessible, shared, and broadly applicable language for knowledge representation, such as agreed-upon controlled vocabularies. The chosen language should have a formal specification, i.e., the language's syntax and grammar are defined in a precise way. Another requirement is that the knowledge representation language specifications should be shared and accessible so others can read the specifications and learn the language. Finally, in other to support interoperability, the language should be designed to be used in more than one scenario.

Both standards and metadata are necessary for interoperability. Without standards, even well-described data (i.e., with metadata) are not user ready, and, without metadata, it is extremely time consuming to understand data or put them to use.

5.4 Making data Re-Usable

Re-usability (FAIR) of data is the last aspect of FAIR data principle. In this regard, data will be published either after the release of the respective deliverables or after the end of the project.

BMM will make its data publicly available under the Creative Commons Licensing scheme.

In particular, the consortium considers the Creative Commons Attribution-NonCommercial International 4.0 as the most appropriate licensing scheme because while it enables the re-use of data, it ensures that the source and the authority of the data are recognized, and the commercial interests of the participants are protected. In case the needs change along the progress of the project, the licensing scheme that is used might change and the present section will be updated.

In order to safeguard the transparency, consistency, comparability, completeness and accuracy of the data, BMM will apply Quality Assurance and Quality Control activities in the form of peer reviews, data summaries, and input data checks. Data availability after the end of the project depends highly on the type and content of data. Therefore, storing data on a public platform needs to be discussed with the contributor of the data.

6 ALLOCATION OF RESOURCES

Costs related to research data/output management are eligible as part of the Horizon Europe grant. Project beneficiaries will be responsible for applying for reimbursement for costs related to making data accessible to others beyond the consortium.

The costs for making data FAIR includes:

- Fees associated with the publication of scientific articles containing project's research data in "Gold" Open access journals. The cost sharing, in case of multiple authors, shall be decided among the authors on a case-by-case basis
- Project Website operation: to be determined
- Data archiving
- Copyright licensing with Creative Commons: free of charge
- The project members of General Assembly are also responsible of the Data Management of BMM dataset and data. Each partner is responsible for the data they produce. Any fee incurred for Open Access through scientific publication of the data will be the responsibility of the data owner (authors) partner(s).

7 DATA SECURITY

BMM will ensure easy access to the data and the following guidelines will be followed to ensure the security of the data:

i. Store data in at least two separate locations to avoid loss of data;
ii. Encrypt data if is deemed necessary by the participating partners;
iii. Limit the use of USB flash drivers;
iv. Label files in a systematically structured way in order to ensure the final dataset coherence;
v. Use the Teams platform to store documents and files guarantee service availability 7 days/week and 24h/day except during blocking incident, after which the service can be re-established within few hours.

Long term data preservation security will be ensured by partner institution's data repositories.

8 ETHICAL AND LEGAL ASPECTS

The collection of personal data in non-EU countries and their transfer out of the EU territory are regulated under the General Data Protection Regulation (GDPR). The GDPR is the main data protection instrument in the EU. It regulates the collection, use, storage, and sharing of personal data.

In general terms, the collection and process of specific categories of data is prohibited: these are data that are related to racial or ethnic origin; sexual orientation; political opinion; religious or philosophical beliefs; trade-union membership; genetic, biometric

or health data except in specific cases (e.g. in case of public health emergencies previous informed consent of the individual), personal data related to criminal convictions and offences (unless there is a specific authorization by EU or national law).

Collecting personal data in non-EU countries

According to the so called 'extra territorial effect', the safeguards envisaged under the GDPR also apply to the collection of personal data in non-EU countries. Against this backdrop, European companies that operate outside the EU should ensure that:

- processing, notification, consent and accountability provisions meet GDPR standards;
- identify any further data protection requirements in applicable laws in the country in which data are to be collected and explain in your proposal how you will comply with them;
- if applicable, ensure that research participants understand and consent to the export of the personal data they provide to an EU Member State or an non-EU country;
- use pseudonymisation or anonymisation techniques to minimise the risk to data subjects;
- implement appropriate organisational and technical measures to ensure that personal data are transferred securely.

Transferring personal data out of the EU

The rules and safeguards envisaged under the GDPR apply even when personal data are transferred out of the EU. Specific dispositions that must be respected, are contained in Chapter V ('Transfers of personal data to third countries or international organisations'). According to Article 45 GDPR "transfer of personal data to a third country or an international organisation may take place where the Commission has decided that the third country, a territory or one or more specified sectors within that third country, or the international organisation in question ensures an adequate level of protection." Therefore, the Commission must evaluate whether the non-EU country's level of protection is deemed appropriate.

ANNEX 1 - TABLE TEMPLATE

COMPULSORY														IF APPLICABLE			
Data Summary	Data description	Data type	Data Format	Provider	Data Source	Data size classes	Data access Rights	Online Repository/Storage	Temporal Coverage available	Data Availability	Metadata Available	Standards Applied	Existing/Foreseen Data	Analysis	Tools	Future Data
e.g. minutes, salinity measurements, temperature measurements etc.	e.g. image DB, recordings of conferences etc.	e.g. in-situ, lab, analysis of literature, experimental, images, video, compiled, unstructured etc.	e.g. mp4, doc, pdf, ppt, csv, xls, shapefile, SQL DB etc.	partner providing data	e.g. lab equipment, datasheet, ArcGIS, Consortium know-how, partners contribution etc.	e.g. >1GB, <100 MB etc.	e.g. internal, open, available on request etc.	e.g. zenodo, github etc.	e.g. 1 year, 1 week, lifespan of project etc.	new data/existing data	yes/no	e.g. INSPIRE etc.	existing data/ foreseen data	e.g. Aggregated data, descriptive analysis etc.	e.g. interviews, risk assessment tools, etc.	e.g. quantitative economic data etc.

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FVA NEW MEDIA RESEARCH

Ifremer

hcmr ΕΛΚΕΘΕ

CSIC Consejo Superior de Investigaciones Científicas

METU

SDG4MED

MedCités MedCities

BUSINESSMED Union of Mediterranean Confederations of Enterprises

ECORYS

CPMR CRPM

LA SAISON BLEUE

MedWaves the UNEP/MAP Regional Activity Centre for SCP

Agència de Residus de Catalunya

MEDCRUISE The Association of Mediterranean Cruise Ports

WWF

GOVERNMENT OF MALTA MINISTRY FOR EDUCATION, SPORT, YOUTH, RESEARCH AND INNOVATION