MARE/2020/08 - SI2.839444

DEVELOPMENT OF THE REGIONAL DATABASE FOR THE MEDITERRANEAN AND BLACK SEAS

This project has financed under the European Maritime and Fisheries Fund (EMFF)

Data policy for the Regional Database and Fishery Information System for the Mediterranean and Black Sea (MED&BS RDBFIS)

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Premise

Generally speaking, data policy refers to the identification of principles and provisions which rule the exchange of data through Information and Communication Technologies or human services by explaining purposes (i.e., the goal of the data policy), actors, procedures and temporal specifications to which the data policy applies (i.e., the scope of the data policy).

This data policy (DP) document has been drawn up by Work Package 3 in the grant "Development of the Regional Database for the Mediterranean and Black Sea" under the European Union (EU) Call for Proposals MARE/2020/08 (Consortium Agreement SI2.839444) and it was submitted for reviewing to the Steering Committee of the grant. It refers to the data policy of the Regional Database and Fishery Information System for the Mediterranean and Black Sea (hereafter referred as Med&BS RDBFIS),a matter that pertains to the Steering Committee on the Med&BS Regional Database (Med&BS RDBFIS SC), which will lead the governance of the RDBFIS itself. The membership and governance rules are under definition and approval.

For this reason, this document has been thought to offer a provisional proposal in order to allow the RDBFIS to be populated with data, necessary to enable checking of Med&BS RDBFIS facilities within the grant. In the meantime, this document has been officially submitted to the Med&BS Regional Coordination Group (Med&BS RGC), from which the final validation and further updates are expected. In any case, its enforcement should be limited to the current grant duration (i.e., 2022).

At the end of each chapter of this document, questions raised within WP3, to be further and in-depth discussed and agreed within the MED&BS RCG, are collected in dedicated tables. In each table, column 'Topic' describes the issue of the question, column 'Open Question' details the query posed by the WP3 member, column 'Comment/tentative answer' reports replies/reactions by other WP3 members, column 'Recommendation' pertains to MED&BS RCG compilation.
The current version has been revised by DG MARE experts and by the National Correspondents from France, Cyprus, Greece and Italy. In the following tables, the topics are still reported if:

- NCs didn't reach a full consensus on the issue presented;
- NCs agreed but an action must follow and should be taken in charge by the MED&BS RCG; the action required is reported in the corresponding issue in Annex 3.

If NCs agreed and the issue does not require a follow up by the MED&BS RCG, the document was directly amended by WP3.
This document, in this present version (18.01.2023) is going to be sent to the current RCG Chairs, Beatriz Guijarro and Emmanuel Tessier, for them to communicate to the NCs.

Introduction

The provisions described here apply to data and information collected under the EU Data Collection Framework (DCF) and submitted, derived and stored in the Med&BS RDBFIS. Therefore, the measures are in line with the rules of the General Data Protection Regulation 2016/679[1] as well as Articles of the(EU) Regulation 2017/1004[2], which relate to the collection of data in the fisheries sector among European Member States (EU MSs) and legitimize the establishment of regional databases as a tool to support the work of RCGs (see Research/technological context paragraph).

[1]Regulation (EU) 2016/679 of the European Parliament 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)
[2]Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008

Nevertheless, other actors (e.g., non-EU countries) could be involved in the future as new players of the Med&BS RDBFIS through had-hoc information flows to support more complete fisheries assessment at regional level. For this reason, the analysis in this document has taken into consideration the following documents:

- the data confidentiality and access policy of the Food and Agriculture Organization of the United Nations - General Fishery Commission for the Mediterranean (FAO-GFCM), which represents for both EU and non-EU countries the Regional Fisheries Management Organization (RFMO) for the Mediterranean and Black Sea;
- the data policy for the ICES Regional Database (RDB) and the Regional Database and Estimation System (RDBES)[3] to identify common features and specificities relevant in this context;
- the Data Sharing Agreement (DSA) under the MARE/2016/22 regional grants (i.e., fishPi2, STREAM) which brought the present activities forward.

Goal and scope of the RDBFIS data policy (RDBFIS DP)

The goal of the RDBFIS DP is to state the conditions for submission, ownership and access to data and information available through theMed&BS RDBFIS. Hence, the providers and consumers of the RDBFIS data as well as the host and maintainer of the database itself shall comply with the RDBFIS DP. The validity range of the present provisions is limited by the grant duration, i.e. no longer than end of 2022, unless differently determined by the Med&BS RDBFIS SC.

Research/technological context

The RDBFIS DP disciplines sharing of data hosted in a Regional Database. The development and implementation of the regional databases are set off within the DCF Regulation where they are appointed to the Regional Coordination Groups[4]. Because of this, the policy applied to the data, primarily adjusts to the Articles of the Reg. (EU) 2017/1004.

A Regional Database (RDB) is a regionally coordinated database platform containing fisheries data, designed to enable reliable scientific advice[5]. The RDB should cover the fisheries of the defined region(s) and should focus on addressing the fishery management needs related to the European Union Common Fisheries Policy[6]. An example of an operative platform is represented by the RDBES, which supports fisheries management activities of the RCG North-East Atlantic, North Sea & Eastern Arctic and RCG Baltic Sea.

Currently, data relevant to address regional issues for the Mediterranean and Black Sea are stored at the EU Joint Research Centre (JRC) in aggregated form or have been made available to RCG Med&BS for selected geographical subareas (GSAs) and target stocks through specific data calls. These detailed data have been archived in the RCG Med&BS share point.

In this sense, the development of the RDBFIS will mainly help and automatize the work of the RCGs, centralizing data storing, facilitating better availability of the data for regional assessments, fast response times of data processing and an increase of data robustness delivered to end-users. In addition, the RDBFIS

[3]DOI: 10.17895/ices.data.7575; ICES. 2021. Working Group on Governance of the Regional Database & Estimation System (WGRDBES-GOV; Outputs from 2020 meeting). ICES Business Reports. 1:4. 67 pp. https://doi.org/10.17895/ices.pub.7976

[4]Pursuant to Regulation (EU) 2017/1004, RCGs shall aim to develop and implement regional databases[see Annex 2, Article 9(3)] together with the Commission, Member States and end-users are entrusted to cooperate on the creation of RDBs

[5] MARE/2020/08 Annex 3: Development of the Regional Database for the Mediterranean and Black Seas

[6]Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy

will facilitate the production of regional sampling plans, transparency, quality assurance, inclusion of new data sets as well as the work of the EU Member States by reducing the burden of multiple data submissions (for data calls) under different formats.

Access rights

Provisions on access rights and time frame are compliant with the Articles listed in Chapter III (Use of data) of the DCF Regulation [see Annex 2, Article 17(1), 17(3) and 17(4)].

Types of data

The RDBFIS hosts the following types of data (see Annex 2, Article 17) and an Inventory:

- *detailed data* means data based on primary data (i.e. data associated with individual vessels, natural or legal persons or individual samples) in a form which does not allow natural persons or legal entities to be identified directly or indirectly (e.g. biological samplings and biological parameters of demersal and small pelagic species);
- *aggregated data* means the output resulting from summarizing the primary or detailed data for specific analytic purposes (e.g. landing and effort information);
- *MEDITS and MEDITS-like* survey data;
- the inventory hosts documents which record the outputs of the data analysis (e.g., MSs reports).

Specifically, the access to RDBIFS data and information are differentiated according to their confidentiality status and access roles (see Data confidentiality and User and access roles chapters).

Topic	Open Question	Comment/tentative answer	MED&BS RCG Recommendation
RDBFIS Metadata repository	I think the RDBIFS should include also "metadata" (data giving qualitative and quantitative information on the collected primary data). In the DCF, it's reported that MS shall "ensure that metadata relating to the primary socioeconomic data collected under national work plans are safely stored in computerized databases"; to be discussed if this obligation also applies to RDB. In any case, metadata are valuable information for end users (posted by E. Sabatella)	I'm not sure this is the case. Storing procedures of socioeconomic metadata are recalled in the DCF and pertain MS individual obligations (see Article 13). Metadata are not strictly mandatory for the RDB. At the moment, as far as I understand, a metadata repository is not under development for the first release of the system (M. Zilioli)	
Description of data hosted in the RDBFIS	It could be useful to specify the kinds of data hosted in the system?	We agree, description of data should also specify for each data the level of	

[7] No primary data are hosted. However, the data collector ensures they are safety stored in computerized database (Article 13). Their inclusion would be feasible once the appropriate security facilities will be implemented in future versions of the RDBFIS.

	i) aggregated landings and effort (transversal aggregated data); ii) detailed biological data (biological samplings and biological parameters) of demersal and small pelagic species; iii) scientific surveys; iv) spatial fishing footprints (main focus on MCDA for small scale fisheries); v) PET samplings; vi) Recreational fisheries; vii) other datasets (e.g., stomach content data) (posted by M. Zilioli)	aggregation available (this would also be helpful for end-user when requesting data to know what is available or not through RDBFIS) (posted by L. Veron, France NC)

License grants to detailed and aggregated data

The data in RDBFIS are collected and analysed for fisheries resources management. The uses allowed are ruled by the DCF [see Annex 2, Article 17(3)(4)] and the license grants are:

1. Fishery resources management:
    a. EU MSs grant permission for **aggregated** data to be used by **end-users of scientific data**[8] (see User and access roles, Type 1, 2 and 3) in the provision of scientific advice to the European Commission;
    b. EU MSs grant permission for **detailed** data to be used by the end-users of scientific data (see User and access roles, Type 1) in the provision of scientific advice to the European Commission and to RCG's for the purposes of Article 9 of the DCF.
2. Any other purpose than specified in Articles 17(3)
    a. EU MSs grant permission for **aggregated** or **detailed** data to any end-users of scientific data and **other interest parties**. The applicant can request access in writing to each EU MS national correspondent and the Commission (the pathway is described below). The EU MS will be obliged to respond within two months from the date of the request. Concerning detailed data, if approval is given users must sign the "Conditions for detailed RDBFIS data use" agreement;
    b. For requests of **detailed** data related to scientific publication, EU MSs may, in order to protect the professional interests of data collectors, require that the publication of data be delayed by 3 years from the date to which the data refer. EU MSs shall inform the end-users of scientific data and the Commission of any such decision and of the reasons thereof [see Annex 2, Article 17(7)].

Likewise for other DCF data, RDBFIS data requests shall to be submitted in compliance with the instructions provided by the Commission: https://datacollection.jrc.ec.europa.eu/guidelines/data-request-template

[8] End-user of scientific data means a body with a research or management interest in the scientific analysis of data in the fisheries sector (Art 4(32) Reg. 2013/1380)

Topic	Open Question	Comment/tentative answer	MED&BSRCG Recommendation
Conditions for RDBFIS detailed data usage	It could be useful, as proposed by ICES, to draw up an agreement document where the conditions for detailed data usage are described by the data user (posted by M. Zilioli)	It seems a good idea (F. Fiorentino)	

Access to the Inventory

Information (e.g., MS public reports) and data in the Inventory is available without restriction on the RDBFIS website.

Policy for Data Users

The obligations for data users (i.e. end-users of scientific data and other interested parties) are ruled according to the DCF(see Annex 2, Articles 2 and 20):

- The use of data is limited to the purposes stated in the data request and follows Article 17 (Procedure for ensuring availability of detailed and aggregated data);
- Data sources and individual data providers must be duly acknowledged;
- Data users provide the EU MSs concerned and the EC with references to the results of the use of the data;
- Data Users inform the RDBFIS host and maintainer, the EC and the EU MSs concerned of any suspected problems with the data;
- Data Users must respect any and all restrictions on the use or reproduction of data such as restrictions on use for commercial purposes or on data exchange with third parties -point c) be responsible for correct and appropriate use of the data with regard to scientific ethics; point f) not forward the requested data to third parties without consent from the Member State concerned; point g) not sell the data to any third party;
- Data Users are solely responsible of the correct and appropriate data interpretation;
- Data Users must not expressly or otherwise imply host and maintainer of the RDBFIS validation of their work, results, conclusions and/or recommendations;
- Data User should take care in analysing the data for purposes that the data were not primarily intended for
- **Data Users should only present aggregated data in their publication**. No detailed data should be published by end-user

Topic	Open Question	Comment/tentative answer	MED&BS RCG Recommendation
Restrictions on the use of data– data exchange with third parties (point 5)	This point is not clear to me (posted by F. Fiorentino)	Data sharing between data requesters and third users that are not officially included in data usage by contract, need to be recognized and ruled (M. Zilioli)	

Policy for Data Provider

The provider of data to RDBFIS (e.g. the EU MSs) shall observe the rules established in the DCF [see Annex 2, Articles 14(1) and 2]:

- EU MSs are responsible for the quality and completeness of the primary data collected under the national and regional work plans, and for the detailed and aggregated data derived there from which are transmitted to end-users of scientific data. Although RDBFIS may perform some data quality/integrity control, the data providers always retain complete responsibility for data processing and data quality, according to Articles 14 and 16 of the DCF;
- When changes (new data and revisions) are made in the data source (i.e., in the national database containing the primary data) countries are responsible to update and process their own data in the RDBFIS in a timely manner;
- It is the responsibility of the data provider to make sure that data do not include information relating to identified or identifiable natural persons or legal entities;
- The EU MSs shall ensure that the relevant data are updated and made available to the relevant end-users of scientific data and other interested parties according to the terms of reference described in Article 17 (see Annex 2);
- If the EU MSs refuses to provide data, Article 19 applies (see Annex 2).

Topic	Open Question	Comment/tentative answer	MED&BS RCG Recommendation
Identify RDBFIS data providers	Are envisioned further RDBFIS data providers other than EU MSs? (posted by M. Zilioli)	According to my knowledge, only the MS can provide data to the RDBFIS (F. Fiorentino)	

Data confidentiality

Data protection and privacy are enforced by the General Data Protection Regulation 2016/679 and Article 13 of the DCF (see Annex 2). They are also legally interoperable with the common principles for data sharing and dissemination recalled in the data confidentiality and access policy of FAO-GFCM.

Data confidentiality is applied to data stored in the RDBFIS as well as to data transmitted by the user accessing the database. The data confidentiality status and the agreed provisions are:

- Data and information stored in the database are classified in:
    1. *Non-sensitive information* (e.g. aggregated data within their geographic and thematic scope available for dissemination);
    2. *Partially sensitive information* (e.g. estimates of biological parameters, data quality indicators related to precision, accuracy, representativeness, completeness and comparability);
    3. *Sensitive information* (e.g. individual data made available in a de-identified form to eliminate the risk to make natural persons or legal entity identified or identifiable);
- Access to information is granted as following:
    1. Public access to non-sensitive information;
    2. Semi-private access to partially sensitive information (ruled by password-controlled log in and restricted to accredited users, see Table 1);

3. Private access to sensitive information (restricted to Manager and Input user, see Table 1).

- Terms of reference on data confidentiality are included in the RDBFIS web pages to make all users fully aware of the liabilities and on how data can be accessed and, where applicable, used.

Users and access roles

The system administrator grants credentials to users approved by the Med&BS RDBFIS SC, which is the decision making body which manages the RDBFIS according to a membership model and guidelines defined in the context of this Consortium Agreement SI2.839444.

RDBFIS users are given access to the system facilities and data according to a role-based matrix described in Table 1. Access to data is granted to end-users of scientific data and other interest parties according to the provisions summarized in Access Rights.
All roles are managed by password-controlled login, with the exception of Public where no login is granted.
The classification of the end-users of scientific data here adopted (i.e. Type 1, 2, 3) follows the STECF categorization[9]. It serves the grouping of users according to their access rights.

Table 1 | Role-based table classifies user privileges in managing data and exploiting functionalities of the system

	Level of aggregation of data		
Role	**Detailed data**	**Aggregated data**	**Inventory information**
Input user MS representatives	Write own data Read own data Process[10]own data	Write own data Read own data Process own data	Write Read
Manager user [End users-Type (1)]	Read all data Process all data	Read all data Process all data	Read
Output user [End users-Type (2, 3)]		Read all data	Read
Public user			Read

Type (1): European Commission; EU MSs governments; RFMO[11]s; RCGs;STECF[12];ICES[13]

Type (2): Advisory Councils;

Type (3): NGOs[14]; research institutes and universities;

The user and roles management are defined by the SC of RDBFIS and maintained by the designated RDBFIS host.

[9] Scientific, Technical and Economic Committee for Fisheries (STECF) – Review of DC MAP – Part 1 (STECF-13-06). 2013. Publications Office of the European Union, Luxembourg, EUR 25974 EN, JRC 81593, 42 pp.
[10] Process on data regards quality checks/raising routines which can be run on data through the RDBFIS facilities
[11]Regional Fisheries Management Organizations
[12] Scientific, Technical and Economic Committee for Fisheries
[13]International Council for the Exploration of the Sea
[14]Non-Governmental Organization

Topic	Open Question	Comment/tentative answer	MED&BS RCG Recommendation
Data process	It is unclear to me what is behind "process" (posted by L. Veron, France NC)	Process on data regards quality checks/rising routines which can be run on data through the RDBFIS facilities (M. Zilioli)	
Access to data	Is it possible to grant access on the basis of each request and not by default? This should be discussed with RCG, but it is an option to be considered (posted by E. Sabatella)	Indeed, end-user (especially NGOs) will request extraction of specific data **for specific projects** – what will do RDBFIS then: grant access to all aggregated data? Or provide extractions of required data? (L. Veron, France NC)	
Personal data management in releasing user credentials	It should be specified how personal data will be managed in conformity with GDPR (quoted in Article 2 of DCF) when the system administrator creates user credentials. We suggest to avoid the usage of personal data (name, surname) by repealing them with business data (institution name) (posted by M. Zilioli)		
End-user classification	The classification of end user is very important. It is important to identify the criteria on the basis of which the end user is classified. In the DCF, there is only one category "end-users of scientific data" (posted by E. Sabatella)	In the present document, the author has followed the baselines issued in the technical proposal (i.e. Annex I of the Consortium Agreement SI2.839444). According to them, some user roles are identified on the basis of the STECF categorization of end-users (M. Zilioli)	
Define input users	If necessary, identify actors which play the role of input users (i.e. users which upload data), other than MS representatives (posted by M. Zilioli)		
Define privileges for manager users	Can manager users write detailed/aggregated data or inventory information? (posted by M. Zilioli)	I think that only MS could write the primary, detailed and aggregated data. The other bodies, including the type 1 users, could read and process data charged	

		by MSs (F. Fiorentino)
Define role/s for RCGs (MED&BS RCG, LP RCG)	Please, note that RCGs were not classified as Type 1 end user in the original STECF document; nevertheless, they must be modelled as RDBFIS user. It is important to confirm the proposed position (i.e., manager user) or to identify an alternative profile for them. It is also important to distinguish accesses for different RCGs. (posted by M. Zilioli)	
Model GFCM as Output user	They should be modelled as Output users (Type 2) (posted by E. Sabatella)	If the GFCM is a RFMO as stated in the Introduction, it should be more coherent explicating the RFMOs which are included in Type (1) of users? (M. Zilioli)
Define roles for ICES and STECF users	They should be modelled as Output users (Type 2) (posted by E. Sabatella)	Verify compliance with categorization made by STECF (see: Annex I of the Consortium Agreement SI2.839444; Scientific, Technical and Economic Committee for Fisheries (STECF) – Review of DC MAP – Part 1 (STECF-13-06). 2013. Publications Office of the European Union, Luxembourg, EUR 25974 EN, JRC 81593, 42 pp.) (M. Zilioli)
Adoption of ICES rules of conduct on data policy and beyond (e.g. Open Data Directive) as discussed in STECF Plenary of July 2021	Significant conclusions/comments which point to adopting the ICES rules of conduct on data policy "STECF observes that Med&BS data are less accessible than the ones for the ICES subareas, which are freely available through ICES database https://ecosystemdata.ices.dk/). ICES Working Group members can access the data, and other users can get access to the data set per request. In particular, STECF notes that ICES survey data are publicly available both in the form of raw haul-by-haul	I agree with you that this point will be placed as an input for MED&BS RDBFIS SC and MED&BS RCG discussions. However, I think that the STECF perspective does not contradict the document which describes, rather than limitations, the different rules to access data (also for public users). DCF regulation is a binding legislative act with more power than the Directive, and only DG MARE will suggest the coherent

	data and as pre-processed abundance indices for selected stocks when used by the assessment working groups" "STECF see no reasons that Med&BS data should be treated any differently than in other sea basins. STECF also acknowledges the Open Data Directive that entered into force on 16 July 2019 (Directive (EU) 2019/1024) to promote “open access policies” from publicly funded research" "The Commission may assist the Member States in implementing this Directive in order to develop policies for open access to publicly funded research data". "STECF stresses that the data collected under DCF calls are funded through public money; survey data, in particular, represent highly valuable information of generic scientific interest and without restrictions linked to commercial confidentiality. STECF fully supports that these scientific resources be made publicly available in the interests of all end-users and be freely used for further analyses provided the source is acknowledged and the obligations are met." (posted by D. Damalas)	direction of work. (M. Zilioli)

Ownership

National data (i.e. both detailed and aggregated data) in RDBFIS is owned by the individual EU MSs.

Data security

The RDBFIS will be hosted on a secure server with the following features:

- Access control - User module with login and security; login is through a website secured with HTTPS protocol;
- Authentication - Transaction log recording history of actions executed by users;
- Encryption - Industry standard 128-bit AES-CTR cipher;
- Integrity controls – Data integrity and consistency controls (Error checking and validation routines);
- Backups – Periodical database backup (via RDBMS backup routines), Local System Imaging, and Remote backup service.

Topic	Open Question	Comment/tentative answer	MED&BS RCG Recommendation
Review of data security requirements	These requirements should be reviewed in the light of WP2 results, before being checked by Med&Bs RCG (posted by M. Zilioli and P. Carrara)		
Secure server	Maybe it could be useful to define the position of the server in the network configuration (e.g. LAN-DMZ-ONE) (posted by M. Zilioli and P. Carrara)		
Define encryption	Disk encryption? Database file encryption? Sensitive data tables encryption? Please, specify (posted by M. Zilioli and P. Carrara)		
Periodical database backup	How often? (posted by M. Zilioli and P. Carrara)		

Annex 1

Table 2| Types of end-users of scientific data according to the STECF classification and privileges as wrote in the Annex I of the Consortium Agreement SI2.839444

End-users of scientific data	Detailed data	Aggregated data	Inventory
Type (1)	Read/Write	Read/Write	Read/Write
Type (2)		Read	Read
Type (3)		Read	Read

Annex 2

Relevant articles from "Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008"

Article 2

Data protection

Where relevant, the processing, management and use of data collected under this Regulation shall comply with, and be without prejudice to, Directive 95/46/EC and Regulations (EC) No 45/2001 and (EC) No 223/2009.

Article 3

Definitions

For the purposes of this Regulation, the definitions referred to in Article 4 of Regulation (EU) No 1380/2013 apply. In addition, the following definitions apply:

(1) 'fisheries sector' means activities related to commercial fisheries, recreational fisheries, aquaculture and industries processing fisheries products;
(2) 'recreational fisheries' means non-commercial fishing activities exploiting marine biological resources for recreation, tourism or sport;
(3) 'marine region' means a geographical area set out in Article 4(2) of Regulation (EU) No 1380/2013, an area established by regional fisheries management organisations or an area defined in the implementing act referred to in Article 9(11);
(4) 'primary data' means data associated with individual vessels, natural or legal persons or individual samples;
(5) 'metadata' means data giving qualitative and quantitative information on the collected primary data;
(6) 'detailed data' means data based on primary data in a form which does not allow natural persons or legal entities to be identified directly or indirectly;
(7) 'aggregated data' means the output resulting from summarising the primary or detailed data for specific analytic purposes;
(8) 'scientific observer' means a person appointed to observe fishing operations in the context of data collection for scientific purposes and designated by a body in charge of the implementation of the national work plans for data collection;
(9) 'scientific data' means data referred to in Article 1(1) that are collected, managed or used under this Regulation.

Article 9

Regional coordination and cooperation

1. As provided for in Article 25 of Regulation (EU) No 1380/2013, Member States shall coordinate their data collection activities with other Member States in the same marine region and shall make every effort to coordinate their actions with third countries having sovereignty or jurisdiction over waters in the same marine region.
2. In order to facilitate regional coordination, regional coordination groups shall be established by the relevant Member States for each marine region.
3. Regional coordination groups shall aim at developing and implementing procedures, methods, quality assurance and quality control for collecting and processing data with a view to enabling the

reliability of scientific advice to be further improved. For that purpose, regional coordination groups shall aim to develop and implement regional databases.
4. Regional coordination groups shall consist of experts appointed by Member States, including national correspondents, and the Commission.
5. Regional coordination groups shall draw up and agree on rules of procedures for their activities.
6. Regional coordination groups shall coordinate with each other and with the Commission, where issues affect several marine regions.
7. Representatives of relevant end-users of scientific data, including the appropriate scientific bodies as referred to in Article 26 of Regulation (EU) No 1380/2013, regional fisheries management organizations, Advisory Councils and third countries shall be invited to attend the meetings of the regional coordination groups as observers, where necessary.
8. Regional coordination groups may prepare draft regional work plans, which shall be compatible with this Regulation and with the multiannual Union programme. Those draft regional work plans may include procedures, methods, quality assurance and quality control for collecting and processing data as referred to in points (a) and (b) of paragraph 2 and in paragraph 5 of Article 5, regionally coordinated sampling strategies and conditions for delivery of data in regional databases. They may also contain cost-sharing arrangements for participation in research surveys at sea.
9. Where a draft regional work plan is prepared, the Member States concerned shall submit it to the Commission by 31 October of the year preceding the year from which the regional work plan is to apply, unless an existing plan still applies, in which case the Member States concerned shall notify the Commission thereof. The Commission may approve a draft regional work plan by means of an implementing act. Such implementing act shall be adopted in accordance with the examination procedure referred to in Article 25(2). For that purpose, the Commission shall take into account, where relevant, the evaluation of STECF as referred to in Article 10. If such evaluation indicates that a draft regional work plan does not comply with this Article or does not ensure the scientific relevance of the data or sufficient quality of the proposed methods and procedures, the Commission shall immediately inform the Member States concerned and indicate amendments to that draft work plan that the Commission considers necessary. Subsequently, the Member States concerned shall submit a revised draft regional work plan to the Commission.
10. A regional work plan shall be considered to replace or supplement the relevant parts of the national work plans of each of the Member States concerned.
11. The Commission may adopt implementing acts laying down rules on procedures, cost-sharing arrangements for participation in research surveys at sea, the area of marine region for the purpose of data collection, and format and timetables for the submission and approval of regional work plans, as referred to in paragraph 8 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 25(2).

Article 14

Data quality control and validation

1. Member States shall be responsible for the quality and completeness of the primary data collected under national work plans, and for the detailed and aggregated data derived there from which are transmitted to end-users of scientific data.
2. Member States shall ensure that:
(a) primary data collected under national work plans are properly checked for errors by appropriate quality control procedures;
(b) detailed and aggregated data derived from primary data collected under national work plans are validated before their transmission to end-users of scientific data;
(c) the quality assurance procedures applied to the primary, detailed and aggregated data referred to in points (a) and (b) are developed in accordance with the procedures adopted by the international

scientific bodies, regional fisheries management organisations, STECF and regional coordination groups.

Article 15

Access to and transmission of primary data

1. For the purpose of the verification of the existence of the primary data collected in accordance with Article 6(1), other than socioeconomic data, Member States shall ensure that the Commission has access to the national computerised databases referred to in point (a) of Article 13.
2. For the purpose of the verification of the socioeconomic data collected in accordance with Article 6(1), Member States shall ensure that the Commission has access to the national computerised databases referred to in point (b) of Article 13.
3. Member States shall conclude agreements with the Commission to ensure effective and unhindered access for the Commission to their national computerised databases referred to in paragraphs 1 and 2, without prejudice to the obligations established by other Union rules.
4. Member States shall ensure that the primary data collected under the research surveys at sea are transmitted to international scientific organisations and appropriate scientific bodies within regional fisheries management organisations in accordance with the international obligations of the Union and the Member States.

Article 16

Processing of primary data

1. Member States shall process the primary data into sets of detailed or aggregated data in accordance with:
(a) relevant international standards, where applicable;
(b) protocols agreed at international or regional level, where applicable.
2. The Member State shall provide to the end-users of scientific data and the Commission, whenever necessary, a description of the methods applied to process the requested data and their statistical properties.

Article 17

Procedure for ensuring availability of detailed and aggregated data

1. Member States shall set up adequate processes and electronic technologies to ensure an effective application of Article 25 of Regulation (EU) No 1380/2013 and of this Regulation. They shall refrain from any unnecessary restrictions to the dissemination of detailed and aggregated data to end-users of scientific data and other interested parties.
2. Member States shall ensure appropriate safeguards, in case data include information relating to identified or identifiable natural persons or legal entities. A Member State may refuse to transmit the relevant detailed and aggregated data if there is a risk of natural persons or legal entities being identified, in which case the Member State concerned shall propose alternative means to meet the needs identified by the end-users of scientific data which ensure anonymity.
3. In the case of requests made by end-users of scientific data in order to serve as a basis for advice to fisheries management, Member States shall ensure that relevant detailed and aggregated data are updated and made available to the relevant end-users of scientific data within the deadlines set in the request, which shall not be shorter than 1 month from the date of receipt of a request for those data.
4. In the case of requests other than those referred to in paragraph 3, Member States shall ensure that the relevant data are updated and made available to the relevant end-users of scientific data and other interested parties within a reasonable period of time. Within 2 months from the date of receipt of the request, the Member States shall inform the requesting party of the duration of

such time, which shall be proportionate to the scope of the request, and of the possible need of additional processing of the data requested.
5. In cases where the data request by other end-users of scientific data than those referred to in paragraph 3 or other interested parties requires additional processing of already collected data, Member States may charge the requesting party the actual costs of the additional processing of data needed before their transmission.
6. In duly justified cases, the Commission may authorise the extension of the deadline referred to in paragraph 3.
7. Where detailed data are requested for scientific publication, Member States may, in order to protect the professional interests of data collectors designated by the body in charge of the implementation of the national work plan, require that the publication of data be delayed by 3 years from the date to which the data refer. Member States shall inform the end-users of scientific data and the Commission of any such decision and of the reasons therefor.

Article 18

Compatible data storage and exchange systems

1. With a view to reducing costs and facilitating access to detailed and aggregated data for end-users of scientific data and other interested parties, Member States, the Commission, scientific advisory bodies and any relevant end-users of scientific data shall cooperate to develop compatible data storage and exchange systems, taking into account the provisions of Directive 2007/2/EC. Those systems shall also facilitate dissemination of information to other interested parties. Such systems may take the form of regional databases. Regional work plans referred to in Article 9(8) of this Regulation may serve as a basis for agreement on such systems.
2. The Commission shall be empowered to adopt implementing acts laying down rules on procedures, formats, codes and timetables to be used to ensure the compatibility of data storage and exchange systems, and to establish safeguards, where appropriate, in the event that the data storage and exchange systems referred to in paragraph 1 of this Article include information relating to identified or identifiable natural persons. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 25(2).

Article 19

Review of refusal to provide data

If a Member State refuses to provide data under Article 17(7), the end-user of scientific data may request the Commission to review the refusal. If the Commission finds that the refusal is not duly justified, it may require the Member State to supply the data to the end-user of scientific data within 1 month.

Article 20

Obligations for end-users of scientific data and other interested parties

1. The end-users of scientific data and other interested parties shall:
(a) use the data only for the purpose stated in their information request in accordance with Article 17;
(b) duly acknowledge the data sources;
(c) be responsible for correct and appropriate use of the data with regard to scientific ethics;
(d) inform the Commission and the Member States concerned of any suspected problems with the data;
(e) provide the Member States concerned and the Commission with references to the results of the use of the data;

(f) not forward the requested data to third parties without consent from the Member State concerned;
(g) not sell the data to any third party.
2. The Member States shall inform the Commission of any non-compliance by the end-users of scientific data or other interested parties.
3. Where the end-users of scientific data or other interested parties fail to comply with any of the requirements set out in paragraph 1, the Commission may allow the Member State concerned to limit or refuse those data users' access to the data.

Annex 3

Summary of the pending issues reported in the **document on Data Policy for the RDBFIS** (updated on 18.01.2023)

Chapters and paragraphs where the pending issues occurred are specified below. NCs are invited to reply to the following points

Chapter "Access rights"

Paragraph *Types of data*

1. Give advice on the open questions about metadata inclusion (page 3)
   CY response: We agree that the RDBFIS should include also "metadata"; this could be developed in a later version of the system.
   GRC response: We agree that the metadata will be included
   ITA response: We agree in providing metadata according to (art. 16 DCF recast) for which metadata shall inform end users on the methods applied to process the data and their statistical properties.
2. Answer the question on specification of kinds of data hosted in the system (page 3)
   CY response: We agree on specifying the kind of data hosted in the system.
   GRC response:We agree with comments by France
   ITA response: we agreed, specification and description needed as pointed out by France.

Paragraph "License grants to detailed and aggregated data"

1. Agreement on the usefulness of a document describing conditions for detailed data usage (page 5)
   CY response: We agree with the suggestion.
   GRC response: We agree with the comments of M. Zilioli and F. Fiorentino
   ITA response: Agreed. It is a good idea

Chapter "Policy for data users"

1. Approve and eventually clarify point 5 (restrictions on the use of data/data exchange with third parties) (page 5)
   CY response: In order to ensure that data extracted from the regional database are provided based on case-by-case user needs, perhaps it would be preferable to modify point 5 by replacing point f with the term "not forward the requested data to third parties; all data requesters should follow formal data request procedures".
   GRC response: *no response was given on this issue*

ITA response: Approved, but it is not clear what is meant in the before the last bullet "*Data Users must not expressly or otherwise imply host and maintainer of the RDBFIS validation of their work, results, conclusions and/or recommendations*;"

2. Approve restrictions on level of aggregation for published data (page 6)
   CY response: We agree on the proposal made by France NC.

   GRC response: We agree with the proposal of France

   ITA response: Approved

Chapter "Policy for data provider"

1. Identify RDBFIS data providers other than EU MSs, if any (page 6)
   CY response: It is our understanding that only MS provide data to the RDBFIS.
   GRC response: We agree that only MS's should provide data to RDBFIS
   ITA response: No data provider except EU MSs

Chapter "Users and access roles"

1. Decide if RDBFIS process functions/facilities are adequately explained (page 8)
   CY response: We consider that process functions are adequately explained.
   GRC response: We agree with the comment of M. Zilioli. It is essential the checks/raising routines can be run on the data through RDBFIS facilities.
   ITA response: Role based table is OK. Technical specification on process to be added or reference given to an explanation.
   There is a mismatch between table 1 and table 2 in Annex 1. In the second table Type (1) can read/write, while in table 1 page 7 it is said that type (1) can read/process (but not write). To be clarified
2. Decide whether RDBFIS accesses can be granted on the basis of each single request or by default (page 9)
   CY response: We consider that access should be granted on the basis of each single request, since each request may concern specific data.

   GRC response: We promote the extraction of only the required aggregated data.

   ITA response: Addressing all possible ad-hoc requests could resulted in a huge effort by RDBFIS team. End-user should do it. Use default option.

3. Give advice on personal data management in releasing access credentials (page 8)
   CY response: We agree on the suggestion to avoid the usage of personal data for the creation of user credentials, by repealing them with business data.

   GRC response: We agree with the proposal of M. Zilioli, to avoid the usage of such personal data.

   ITA response: Yes, agreed with the proposal to avoid name and surname use

4. Decide if criteria adopted in end-user classification are adequately clarified in the document (page 9)
   CY response: We consider that criteria adopted in end-user classification are adequately clarified in the document.
   GRC response: Since the data derive from the DCF we propose to keep only the one category "end-users of scientific data"

ITA response: OK, as it is stated in the Annex I of the Consortium Agreement SI2.839444

5. Identify input users other than EU MSs, if necessary (page 9)
   CY response: Concerning Cyprus, only MS representatives will be input users.

   GRC response: Only MS's representatives should appoint input users

   ITA response: No.

6. Agreement on data entry privileges appointed to manager users identified in Table 1 (page 9)
   CY response: We consider that manager users should not be able to input data.

   GRC response: We agree with the comment of F. Fiorentino that only MS could write the primary, detailed and aggregated data.

   ITA response: Only MS can write.

7. Agreement on the role to be assigned to different RCGs (LP, Med&BS) users following Table 1 (page 10)
   CY response: We consider that RCG Med&BS should be manager user (Type 1), and the rest of RCGs Output users. In the case RCG LP will use RDBFIS as regional database in the future, then RCG LP should also become manager user.

   GRC response: We agree that the RCG MED&BS will have access to read the complete dataset.

   ITA response: RCG MEDBS and RCG LP should be Type 1 user

8. Agreement on the role to be assigned to GFCM users following Table 1 (page 10)
   CY response: Current state of play is to provide aggregated data to GFCM (and other RFMOs), based on data requirements. In the case RFMOs are considered as Type 2 end-users (which is our preference), we understand that this will not affect the type of data they receive. We do not oppose though on a decision of the RCG Med&BS to consider the above end-users as Type 1.

   GRC response: GFCM should only be able to read the aggregated data provided only by the DCRF data-call.

   ITA response: RFMOs should be type 2 not type 1.

9. Agreement on the role to be assigned to ICES and STECF users following Table 1 (page 10)
   CY response: Current state of play is to provide aggregated data to ICES (WGBYC) and STECF (through Official DGMARE Data Calls). In the case ICES and STECF are considered as Type 2 end-users (which is our preference), we understand that this will not affect the type of data they receive. We do not oppose though on a decision of the RCG Med&BS to consider the above end-users as Type 1.

   GRC response: STECF should be modelled as Output User (Type 2) and ICES should only be able to have access to the open data which will be decided by RCG MS and DG MARE.

   ITA response: STECF as Type 1 while ICES Type 2.

10. Approve ICES rules of conduct on data policy and beyond (page 10)
    CY response: We consider that the end-users classification is adequate and provides access to the Med&BS DCF data to end-users.

    GRC response: This should be decided within the RCG's and the SC of the RDB along with DG MARE.

ITA response: DCF Regulation should be observed.

Chapter "Data security"

CY response: We consider the questions on data security very technical; we would like to receive the proposal from the consortium regarding best practices before providing our opinion.

1. Give advice if all data security requirements are stated (page 12)
   GRC response: European legislation on security and data encryption should be followed
   ITA response: Not in the position to comment, technical issue comment
2. Evaluate if the clarification about the position of the server in the network configuration is useful (e.g., LAN-DMZ-ONE) (page 12)
   GRC response: European legislation on security and data encryption should be followed

   ITA response: As above
3. Give advice on planned encryption processes (page 12)
   GRC response: European legislation on security and data encryption should be followed
   ITA response: As above
4. Give advice on database back frequency (page 12)
   GRC response: European legislation on security and data encryption should be followed

   ITA response: As above