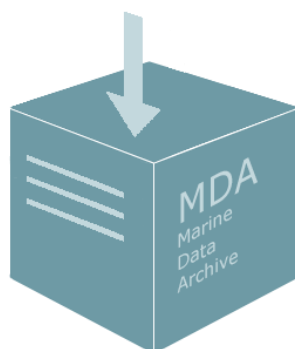# MDA Policy Document

Data Policy
Marine Data Archive (MDA) version 2.4

Authors: MDA team
Date: March 2023
Version: 2.40

Flanders Marine Institute (VLIZ)
Oostende, Belgium
2020

Contents

1.   Marine Data Archive Policy

This document describes the data policies of the Marine Data Archive (MDA) and the terms and conditions that apply to the use of the MDA and its services. By accessing or using the MDA, the user agrees to the terms and conditions set forth below.
In case of problems or questions, please contact mda@vliz.be

1.1.   Privacy policy

For more information about our privacy policy related to personal data, please visit http://www.vliz.be/en/privacy. Personal information is required to register with the system (name, email address) and these details will be used only to communicate on issues related to the MDA.

1.2.   Usage

The Marine Data Archive is an online repository specifically developed to archive data files in a fully documented manner. The MDA can serve individuals, consortia, working groups, projects, and institutes.
Its main functions are:

1. to manage data files and file versions within a specific context (project, report, analysis, monitoring campaign)
2. as a personal or institutional archive or back-up system
3. as an open repository to support data publications

VLIZ hosts the system and offers support for optimal use. The data provider and user are free to structure and manage files and folders at their discretion, making use of the functionalities offered by the system.

The MDA is not publicly searchable: for data in the MDA to be *findable*, they need to also be listed in a metadata catalogue. For this to happen, data in the MDA can be linked to a metadata record in the Integrated Marine Information System (https://www.vliz.be/en/integrated-marine-information-system). For more information on this, see https://www.vliz.be/en/data-submission.

1.3.   Intellectual property

All files and their content uploaded in the MDA data are protected by copyright or other laws, as well as international conventions ("intellectual property"). Copies, adjustments, and/or alterations are prohibited without prior permission of the Intellectual Property Right holder unless stated (*"conditions of use")* or agreed (*in memoranda of understanding, data policy agreements, project-descriptions*) otherwise.

The data provider should be aware that they can only upload files where they are the holder of rights to the files, or the only holder of rights to the data files or are otherwise entitled to act in the present matter with the permission of other parties that hold rights.

1.4.   Controlled access to the Archive

Access to the MDA is regulated through an account-based registration procedure, managed by VLIZ. Access can be given on three levels: read-only, write limited, and write full. Access is granted on the root folder level and applies automatically to all subfolders and files stored under this folder. A user can have different access rights depending on the root folder they visit. The access rights regulate the different actions a user can perform. (https://marinedataarchive.org/mdamanual.pdf section 1.4).
By default, a user has access to their private folder (write full) and the public folders (write limited). Granting or denying (limited) access of a user to a shared folder is always decided in consultation with the user(group) and/or the data providers.

1.5.   Archiving criteria

The Marine Data Archive provides a user workspace (quarantine folder) and an archive with a private, shared, and public domain. A file can only be archived and thus transferred from the workspace (quarantine) to the archive when the mandatory metadata fields have been completed or after a pre-determined length of time has elapsed. These required fields ensure that the data file is traceable and interpretable at all times. Following VLIZ's mission for FAIR (LINK) (Findable, Accessible, Interoperable, and Re-useable) and Open data. Processes and procedures for archiving are described in the manual. (https://marinedataarchive.org/mdamanual.pdf section 2.3.3).

1.6.   Long-term data existence policy

The development and maintenance of the MDA is an institutional activity. One of the key activities of the Data Centre is to offer tools and support for archiving data files and to ensure their long-term existence. It is hence in the remit of the VLIZ Data Centre that any data files stored in the MDA will exist for as long as the MDA, or any successor does. If VLIZ ceases to exist or terminates its data-archiving activities, VLIZ shall attempt to transfer the data files to a similar organisation that will continue the Agreement with the data provider, under similar conditions if possible. If VLIZ does not succeed in finding a similar organisation, VLIZ will organise a transfer of all files to each intellectual property-right holder or the data provider.

1.7.   Archive versus data distribution

Archiving ensures that data files are preserved and traceable at all times.
Archiving does not automatically imply other data management activities, such as quality control or integration of the data file(s) in online searchable databases. It can, however, be

the first step in facilitating this (https://marinedataarchive.org/mdamanual.pdf section 4). The data provider can initiate communication with VLIZ (or vice versa) if they think their data files in the MDA could be of use for other research activities. Note that data in private folders are only ever visible to the folder owner; data in shared or public folders can, however, be shared with others.

VLIZ will not initiate any quality control, data processing, or integration activities without prior agreement of the data provider.

URLs are assigned to datasets in the MDA. All datasets in the MDA can be accessed via unique URLs; data in private or shared folders will require a login, and permission to access those files will follow the access rights as set in the MDA.

When you upload new versions of files, you have the choice to remove the existing file or archive the existing file.

1.8.   Using and citing the data

Users of the MDA can download data files if the access rights set allow them to do so. Data in public folders are downloadable by anyone but changeable only by the data provider. VLIZ will always emphasize the recognition of the data owner. It is in the interest of the data owner to add a citation to the metadata of their data in the MDA, especially in public folders.
Any user can create a public metadata record for any archived data files, including information on the use of the file (i.e., the licence), via the IMIS datasets catalogue. Metadata records in IMIS are created by the data provider and VLIZ together.
In case a data provider wants to publish their data with a DOI, VLIZ can facilitate a DOI request and potentially organise, in agreement with the data provider, a data transfer to another online data system.

2.   FAIR (meta)data and the MDA

One of the main purposes of the MDA is to provide a space for the marine community to archive and share their data within projects or teams. When used in this capacity, the FAIR (https://www.vliz.be/en/fair-open-data) requirements on the data are quite relaxed: a minimum of metadata should be added to allow the data to be described and searched-for within the MDA itself, but otherwise, it is the decision of the data owners on how to format and describe their data.

However, another purpose of the MDA is to provide an archive from where data can be published, e.g. by creating an associated metadata record in the Integrated Marine Information System datasets catalogue (https://www.vliz.be/en/integrated-marine-information-system). When used in this capacity, the VLIZ Data Centre strives to adhere to

the FAIR principles, for the metadata and for the datasets themselves. A richer and more standardised set of metadata and data formats will be required to publish data. Hence, we do encourage all users of the MDA to aim to address FAIRness with respect to their (meta)data in the MDA, from as early a starting point as possible. In addition to sharing your data via this IMIS record, you can also obtain a DOI for your record, see https://www.vliz.be/en/publish.

3. Terms and conditions

The following parties are involved in this Data Policy:

1. The organisation or person authorised to transfer and deposit the digital data file(s), hereafter referred to as the *Data provider.*
2. The organisation that is hereby authorised to archive and manage the digital data file(s), hereafter referred to as *the Data manager.*

The Data manager is:

Organisation: VLIZ- Data Centre Division
Postal address: InnovOcean Campus
Jacobsenstraat 1
Postal code: B-8400
Town/city: Ostend
Country: Belgium

E-mail: data@vliz.be

3.1.1. The Data provider

1. The Data provider declares that they are the holder of rights to the data files, or are the only holder of rights to the data files, and/or are entitled to act in the present matter with the permission of other parties that hold rights.
2. The Data provider indemnifies the Data manager against all claims made by other parties against the Data manager with regard to the data files, the transfer of the data files, and the form and/or content of the data files.
3. The Data provider declares that the data files correspond to the specification provided.
4. The Data provider declares that the data files contain no data or other elements that are contrary to Belgian law.
5. The Data provider is solely responsible and liable for files added to the MDA using their account. Any violation of these provisions can be subject to immediate termination of the use of the MDA.
6. The Data provider declares that they will not
   1. Use the MDA in any manner which could damage, disable, overburden, impair or otherwise interfere with the use of the MDA or other users' computer equipment, or cause damage, disruption or limit the functioning of any software, hardware, or telecommunications equipment.

2. Attempt to gain unauthorised access to the different workspaces of the MDA, any related website, other accounts, computer system, or networks connected to this Service, through hacking, password mining, or any other means.
3. Obtain or attempt to obtain any materials or information through any means not intentionally made available through this Service, including harvesting or otherwise collecting information about others such as e-mail addresses.

3.1.2. The Data manager, VLIZ

1. The Data manager shall ensure, to the best of its ability and resources that the deposited data files are archived in a sustainable manner.
2. The Data manager shall, as far as possible, preserve the data files unchanged in their original software format, taking account of current technology and the costs of implementation. The Data manager has the right to modify the format and/or functionality of the data files if this is necessary in order to facilitate digital sustainability or in agreement with the data provider to facilitate the distribution or re-use of the data files.
3. VLIZ holds the right to investigate the content, origin, or destination of the uploaded data when it is suspected that (part of) the communication is related to illegal or improper activities, if the authorities give such an order, or in the frame of future research activities. In case of illegal or improper content, VLIZ will immediately remove this information and deny the further use of the MDA to the responsible persons. In case of future use, VLIZ will at all times contact the data provider to discuss specific conditions of use.

3.1.3. Removal of data files/changes to access conditions

1. If sufficient weighty grounds exist, the Data provider has the right to request the Data manager not to make the data file available for a temporary period or permanently. In such cases, the Data manager shall retain the data file in the MDA but shall no longer allow third parties to access the data file or substantial parts thereof.
2. If sufficient weighty grounds exist, the Data manager has the right to remove the data file from the MDA wholly or in part, or to restrict or prevent access to the data file on a temporary or permanent basis. The Data manager shall inform the Data provider in such cases.
3. In case access is denied due to improper use, one will still be able to recover all the previously uploaded information from the MDA.
4. To publish your data with a DOI in IMIS, the data should receive a CC 4.0 licence (with a preference for CC BY) either immediately or after a specified moratorium period. For the data to be accessible at the point of receiving the CC BY licence, they must be placed in a public folder in the MDA. Moratorium periods can be discussed between the Data Manager and the Data Provider.

3.1.4. Availability to third parties

1. The Data manager shall make the data file available to third parties in accordance with the Access constraints defined by the Data provider.
2. If requested, the Data manager shall publish the metadata and make an effort to make the general information about the research and publications related to the data freely available.
3. The Data manager shall require third parties to whom the data file (or substantial parts thereof) is made available to, to include in the research results a clear reference to the data file from which data have been used. This reference is a citation included in the metadata record of the data file or a unique URL referring to the data file or folder.

3.1.5. Liability

1. The Data manager accepts no liability in the event that all or part of a data file is lost.
2. The Data manager accepts no liability for any damage or losses resulting from acts or omissions by third parties to whom the Data manager has made the data file available.
Under no circumstances, VLIZ will be liable for:
    1. any incidental, consequential, or indirect damages (including, but not limited to, damages for loss of profits, business interruption, loss of programs or information, and the like) arising from the use of, or inability to use the MDA, or any information or transactions provided on the MDA, or downloaded from the MDA, or any delay of such information or service
    2. incorrect or erroneous information on the MDA website, nor does it give the right to a financial compensation
    3. the (temporarily) failing of the service
    4. any actions of those who violate this policy which may cause harm to the owner of the data or other third-party users

3.1.6. Term and termination of the Agreement

1. This Agreement shall come into effect on the date on which the Data manager receives the data file (hereafter the submission date) and shall remain valid for an indefinite period. It is possible to change the agreed access category at any time during the term of the Agreement.
2. Notwithstanding point (a), this Agreement shall end when the data file is removed from the MDA in accordance with Article 5 of this Agreement.
3. If the Data manager ceases to exist or terminates its data-archiving activities, the Data manager shall attempt to transfer the data files to a similar organisation that will continue the Agreement with the Data provider under similar conditions if possible. If not, the Data Manager shall ensure a copy of all files and transfer them to the Data provider.
4. Following the death of the Data provider, or in the event that the Data provider's organisation ceases to exist, data files with no specified licence will be made available as Open Access.

4. Security

4.1.1. Backups

Every day a database and archive backup is made and written to tape for short-term safeguarding (3 weeks). Tapes containing the backups taken during weekends are kept aside (6 weeks). Monthly backups are labeled and preserved at different locations. A yearly backup is put in a bank vault.

4.1.2. Redundancy

All VLIZ server networking is set up redundantly, this includes two firewalls with an internet connection each and automatic switching in case of failure. The MDA is hosted on a web (server) cluster of two machines and the database server is sync'ed across a cluster of two virtual machines..

Virtual machines are hosted on two separate Nutanix clusters consisting of five HCI machines (compute and storage combined). Whenever a physical machine fails the hosted virtual machines can be started on another host within each cluster.