Delivery manual for Article 12 data

Final version – 14th May 2019

Contents

1   Introduction

These guidelines are to assist the Member States when submitting their Article 12 national reports to the EEA's Central Data Repository (CDR - http://cdr.eionet.europa.eu/). The data delivery process is completed by the National Coordinator assigned by each Member State however this manual aims to ensure this procedure is described clearly for anybody involved at any stage along the data preparation and upload process.

In general, the guidelines are separated into the validation and preparation requirements for both tabular and spatial data collected by Member States prior to submitting to CDR, and the process for data delivery whether using the EEA provided tools to facilitate data validation (i.e. the reporting tool and the range tool) or direct upload to CDR.

For specific help and advice or questions regarding the reported information, requested data standards, QA/QC results, functioning of the specific features within the reporting envelopes the contact email is nature.helpdesk@eionet.europa.eu.

2   Data preparation process

2.1   Overview

All documentation and tools required for data preparation, validation and submission to CDR are available on the 'Reference Portal for reporting under Article 12 of the Birds Directive' (http://cdr.eionet.europa.eu/help/birds_art12/). This includes:

- Reporting formats and reporting guidelines
- Required lists for reporting (checklist for bird species, list of pressures and threats, list of conservation measures and link to all codelists for structured entries in the report formats)
- Spatial data (links to the European 10 x 10 km grids)
- Reporting tool and reporting tool manual
- XML schemas, validation rules
- this delivery manual
- FAQ and notes providing additional specific guidance

The individual fields to be filled in for the national report are detailed in the guidelines. Member State's national reports will be delivered via Central Data Repository of Reportnet (http://cdr.eionet.europa.eu/). Each Member State assigns a national data coordinator as the Member State delivery via CDR. The coordinators have rights to upload information to the EEA Reportnet system on Eionet (http://www.eionet.europa.eu/reportnet) and they also act as the primary point of contact for the Commission, the EEA and the ETC/BD regarding any question about national data deliveries via Reportnet. The national data coordinators have permissions to both activate and deactivate tasks within CDR, and to formally submit completed tasks in CDR.

The role of national coordinator in delivering data on CDR is described in chapter '3 Data delivery to CDR'.

A broad outline of the data flow followed by Member States from the point of data validation to final delivery to CDR is provided in Figure 2.1.

Figure 2-1 Generalised data flow from data collection to final delivery
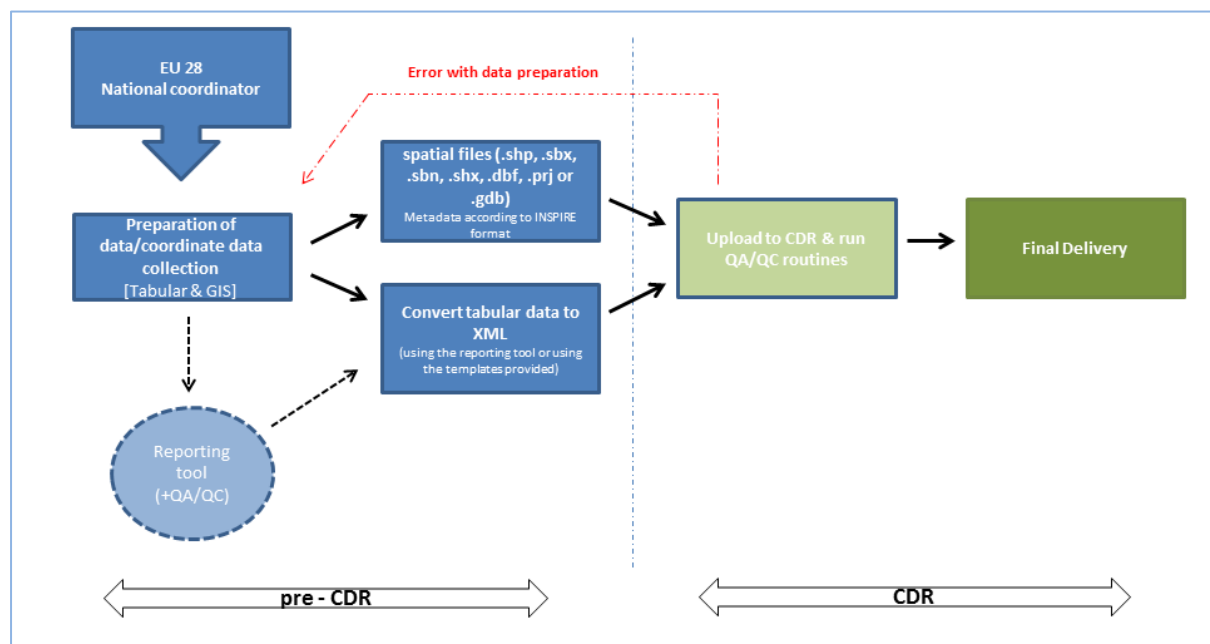
2.2   Data validation

A Member State delivery is comprised of tabular and spatial data adhering to the guidelines as laid down in this document. For an efficient final upload to CDR, these data are converted to a common format, with or without using the tools provided, and undergo several stages of QA/QC checking as a means of validating the information.

Data validation ensures that data are provided in the correct format prior to submission to CDR. Validation is a somewhat automated process if the Member State is using the reporting tool Member States not using the reporting will undergo the same QA/QC process through CDR. The QA/QC procedure highlights issues such as:

- Data missing from fields
- Data entered in an incorrect format

It further ensures that:

- the main coherence rules as outlined in the guidelines and formats are followed
- File naming convention is respected
- Predefined structure of the xml files is followed
- The delivery is complete in terms of the requested files as well as number of bird species for which the report is expected

To assist with data validation;

- The **reporting tool** is a user friendly interface mirroring the Article 12 report formats and which also functions as a data validation tool through its QA/QC checks. Additionally, the tool allows for data to be exported in xml format, ready for CDR upload. The reporting tool runs the same basic set of QA/QC procedures as CDR (CDR QA/QC is an extended version of the tool inbuilt QA/QC) and it provides links to QA/QC running on the CDR. This is found on the reference portal for Article 12 long with a read_me file containing the more technical information about the tool (http://cdr.eionet.europa.eu/help/birds_art12/).

This tool has been provided by the EEA to assist Member States with ensuring their data are in the correct format for delivery to CDR via the Reportnet system. The benefit of using the reporting tool is that it contains a sequence of in-built QA/QC checks to ensure conformity. It is not obligatory to use it as part of the data delivery process and as such Member States will have to otherwise ensure their data conforms to the standards required. Xml schemas are provided in the reference portal for those not using the reporting tool.

Basic data standards regarding tabular and spatial data are described in detail in Section 2.3 and 2.4 below. A step-by-step guide to delivering data to CDR is given in Section 3 Data delivery to CDR.

2.3   Data files to be submitted

Data are collected by Member States in tabular or spatial format and will ultimately be delivered to CDR using xml as the data carrier for the tabular data. The spatial data can be uploaded as shapefile or zipped geodatabase. Below is a list of files that should be uploaded to the Member State envelope by the national coordinator.

Table 2-1 List of data files to be submitted for Article 12 reporting on bird species. Those shaded in grey are not mandatory.

File name	File type	Description
XX_birds_general_report	Mandatory	single XML file containing information requested by 'Annex A – General report format for (Article 12)'
XX[1]_birds_reports[2]	Mandatory	single XML file containing information requested by 'Annex B - Bird species' status and trends report format (Article 12)'
XX[3]_Art12_birds_distribution	Mandatory	single zipped GIS shape file or gdb containing spatial information requested in Annex B, field "4.3 Breeding distribution map"
XX[4]_Art12_reporting	Mandatory	* if ESRI File-Geodatabase is used then a

[1] XXXX = three and four digit codes for Gibraltar, Azores, Canaries and Madeira for Article 12

[2] The file names 'XX_ birds_general_report, 'XX_ birds_reports, 'XX_birds_checklist' produced by the reporting tool will contain the export date and time at the end in a form YYYYMMDD-HHMMSS. The file name would look like: XX_birds_reports-20180621-110137

[3] See above in [1]

[4] See above in [1]

		separate XX_Art12_birds_distribution shapefile **is not expected.** However, the feature class within the zipped gdb must adhere to the naming convention of the individual files above i.e. XX_Art12_birds_distribution.
XX[5]_Art12_birds_distribution_sensitive	provided if data to be kept from public view	single GIS shape file (or zipped gdb if preferred named **XX_Art12_birds_distribution_sensitive**, separate to the distribution files above) containing spatial information requested in
XX[6]_birds_checklist	provided if changed during process	to be submitted as part of a delivery if it has been modified from the version on the reference portal

A few things to note about file delivery:

- The files highlighted in grey are those which are only necessary to upload as a part of the official delivery if sensitive data are included in the data package or if a checklist has been modified by a Member State.

- There are two options for submitting spatial information, either as individual shape files labelled **as XX_Art12_birds_distribution / XX_Art12_birds_distribution_sensitive** OR gdb. Files containing information on sensitive species must be treated separately i.e. uploaded as a separate shape file or zipped gdb.

- If spatial data are delivered in gdb format the file names within must adhere to the naming convention of the individual files above (i.e. XX_Art12_birds_distribution).

- Member States can submit additional files containing relevant information concerning the national reports to CDR together with the national delivery of the Article 12 report.

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[5] See above in [1]
[6] See above in [1]

Things that might prevent shp or gdb upload:

- Files need to be zipped
- If a system lock file is included in the zipped folders, this will prevent the upload (i.e. files with "gdb.'server name'.sr.lock).

2.4   Tabular data standards for Article 12 reporting

Tabular data is submitted in XML format. The XML schemas and guidance for their use (Mapping XML schemas to report formats) can be accessed via the reference portal (http://cdr.eionet.europa.eu/help/birds_art12/). A list of associated validation rules in relation to the reporting tool and upload to CDR will be made available shortly. Where the reporting tool is used for the data preparation the result is exported in XML format.
These schemas ensure that all data are delivered in the same format and can all undergo the same validation process.

A few things to note about tabular data delivery:

- One report (XML file) is delivered for Annex A of the report format per Member State and one report (XML file) for bird species (Annex B) – 2 in total.
- Countries for which a separate report (not including the general report) for sub-national territories is expected should prepare separate files for sub-national territories (e.g. PT, ES, UK). This concerns XXXX_birds_reports, XXXX_Art12_birds_distribution, XXXX_Art12_birds_distribution_sensitive, XXXX_birds_checklist.
- It is important to ensure that data files have been filled in completely and that partial deliveries have not been uploaded as this could affect the QA/QC procedures.

2.5   Spatial data standards for Article 12 reporting

Submission of distribution map for breeding birds present in a Member State is a basic requirement of the Article 12 reporting. The distribution map data should provide information about where breeding is recorded or likely to occur. More information on the specifics of recording breeding bird information is given in Section 4.6 of the Explanatory notes   and   guidelines   for   Article   12   reporting (http://cdr.eionet.europa.eu/help/birds_art12/).

The distribution maps will consist of 10 x 10 km ETRS 89 grid cells in the ETRS LAEA 52 10 projection (EPSG3035) [7]. The gridded data will be comprised of 10 km grid[8] cells where the species is recorded as occurring (or likely to occur, see Explanatory notes and guidelines for more information). The use of attribute data to indicate the presence or absence of a species in a grid cell is not permitted. The period over which the distribution data was collected should be included in the metadata following the INSPIRE guidelines.

In some exceptional cases such as small Member States like Luxembourg, Malta and Cyprus 1 x 1 km grids should be allowed, these will be then aggregated by ETC/BD to 10 x 10 km for visualisation at the European level.

The EEA has produced these grid files which cover the entire extent of the Member State subject to the Article 12 reporting process and are available from the Article 12 Reference Portal[9]. The EEA does not provide 5 x 5 km grids, therefore Member States recording data at this resolution will need to adapt it to the 1 x 1 km grid before submitting the data to CDR.

Geographical grids are an Annex I theme of the INSPIRE Directive[10]. The INSPIRE specifications on Geographical grid systems[11] define the ETRS 89 LAEA grid as the pan-European standard grid.

Member States may also submit additional maps, for example, that deviate from the standard above. Additional maps must be accompanied by the relevant metadata and details of the projection used.

Breeding bird species distribution data should be delivered in shapefile format or as ESRI File-Geodatabase. The files will be multilayer and will be comprised of all species distributions (Figure 2-2).

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[7] European Terrestrial Reference System 1989 Lambert Azimuthal Equal Area Latitude of origin 52 N, Longitude of origin (central meridian) 10˚E. http://www.eionet.europa.eu/gis
[8] See Explanatory Notes and Guidelines for more detailed guidance.
[9] http://cdr.eionet.europa.eu/help/ birds_art12/
[10] See http://inspire.jrc.ec.europa.eu/ for more information on this Directive.
[11]   D2.8.I.2   INSPIRE   specifications   on   Geographical   Grid   Systems–Guidelines. http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_Specification_GGS_v3.0.pdf

Figure 2-2: multilayer structure of a distribution data file
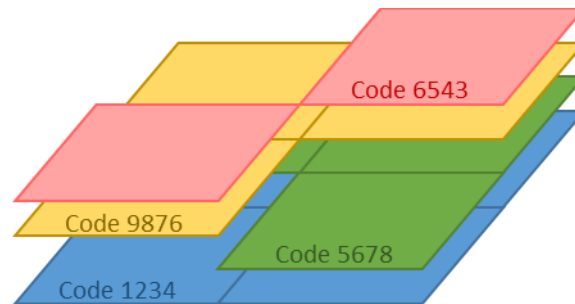
The grid features can be uploaded as a dissolved feature if it is found that the file size is too big (Figure 2-3). Dissolving will reduce the overall file size and ensure the data are easier to manage.
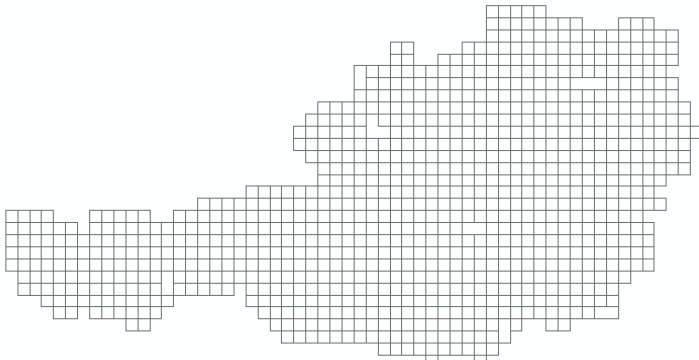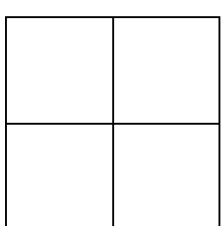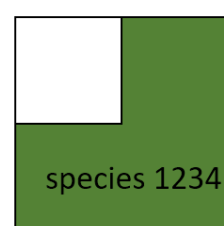
Figure 2-3: two options of spatial reporting: same codes dissolved or reported separately
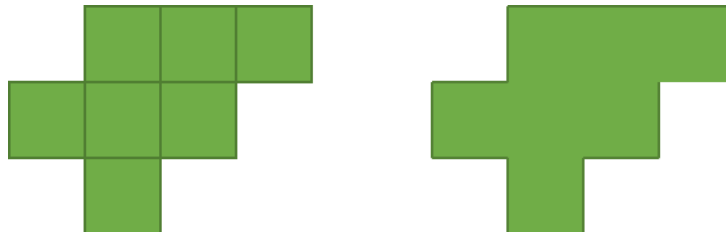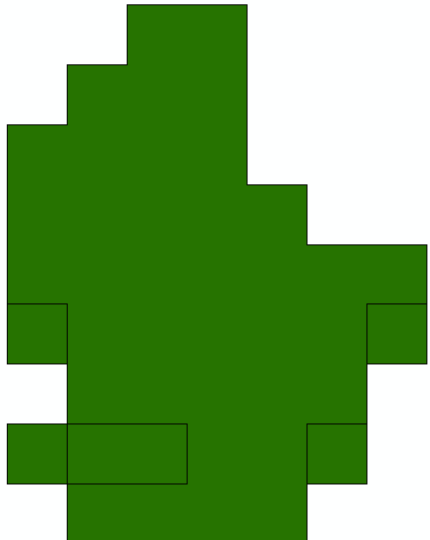
Sensitive bird species data should be uploaded as a separate shape file or zipped gdb (see table 2.1 above).

The following table describes the mandatory specifications to be fulfilled by the spatial datasets.

Table 2-2 Checklist of spatial specifications

File format	Shapefile (.dbf, .prj, .sbn, .sbx, .shp, .shx) or ESRI File-Geodatabase (.gdb)			
Projection	ETRS 89 LAEA 5210 projection (EPSG:3035)			
Reference GRID	**All data to consist of the ETRS 89 LAEA 5210 10x10km grids available from the EEA*** ***There are some agreed exceptions to this rule for marine reporting and for smaller countries. Please note that in these cases ETRS 89 LAEA 5210 projection should be used.**			

Attributes	Name	Description	TYPE	Example
	code	The Unique identifier. Use the code given in the checklist for reporting	string(15)	*1530*
	maptype	Distribution	string(15)	*Distribution*
	category	Birds	string(15)	*Birds*
	isocode	Country code: Use the two-digit codes from ISO 3166, except that UK should be used instead of GB for the United Kingdom. (See Annex too) A table giving the codes can be found on the Reference Portal.	string(2)	*AT*
	refgrid	Information about EEA GRID used and its mesh size such as 10x10km, 1x1km	string(25)	*EEA-10km grid*
	sensitive	Description if data contains sensitive information "sensitive" or "non-sensitive"	string(15)	*sensitive*

Step A	**The single GRID cells will be delivered in the form of a "dissolved" feature to reduce the file size:**
Step B	**All breeding bird species distribution features should be stored in <u>ONE</u> shp-file or <u>ONE</u> feature class in the ESRI File-Geodatabase**

FID	Shape *	Code	MapType	Category	ISO_code	Grid
3	Polygon	A229	Distribution	Birds	LU	EEA-10km GRID
4	Polygon	A748-X	Distribution	Birds	LU	EEA-10km GRID
5	Polygon	A055	Distribution	Birds	LU	EEA-10km GRID
6	Polygon	A699	Distribution	Birds	LU	EEA-10km GRID
7	Polygon	A221	Distribution	Birds	LU	EEA-10km GRID
8	Polygon	A218	Distribution	Birds	LU	EEA-10km GRID
9	Polygon	A059	Distribution	Birds	LU	EEA-10km GRID
10	Polygon	A061	Distribution	Birds	LU	EEA-10km GRID
11	Polygon	A044-X	Distribution	Birds	LU	EEA-10km GRID
12	Polygon	A224	Distribution	Birds	LU	EEA-10km GRID
13	Polygon	A726	Distribution	Birds	LU	EEA-10km GRID
14	Polygon	A264	Distribution	Birds	LU	EEA-10km GRID
15	Polygon	A350	Distribution	Birds	LU	EEA-10km GRID
16	Polygon	A348	Distribution	Birds	LU	EEA-10km GRID
17	Polygon	A122	Distribution	Birds	LU	EEA-10km GRID
18	Polygon	A212	Distribution	Birds	LU	EEA-10km GRID
19	Polygon	A036	Distribution	Birds	LU	EEA-10km GRID

☑ LU_Art12_birds_distribution

Filename	**Non-sensitive data:** XX_Art12_birds_distribution (.shp; in case ESRI File-Geodatabase is used no file extension is needed for the actual feature; the .gdb is named XX_Art12_reporting) **Sensitive data:** XX_Art12_birds_distribution_sensitive

3   Data delivery to CDR

The data delivery to the Central Data Repository (CDR) will consist of the files listed in Table 2.1 above. The file types and naming conventions listed must be adhered to in all cases (whether the EEA provided reporting tool was used or the Member State created their data files independently) in order to avoid data rejection when using the QA routines.

The schema below shows the workflow for uploading the data to the CDR.
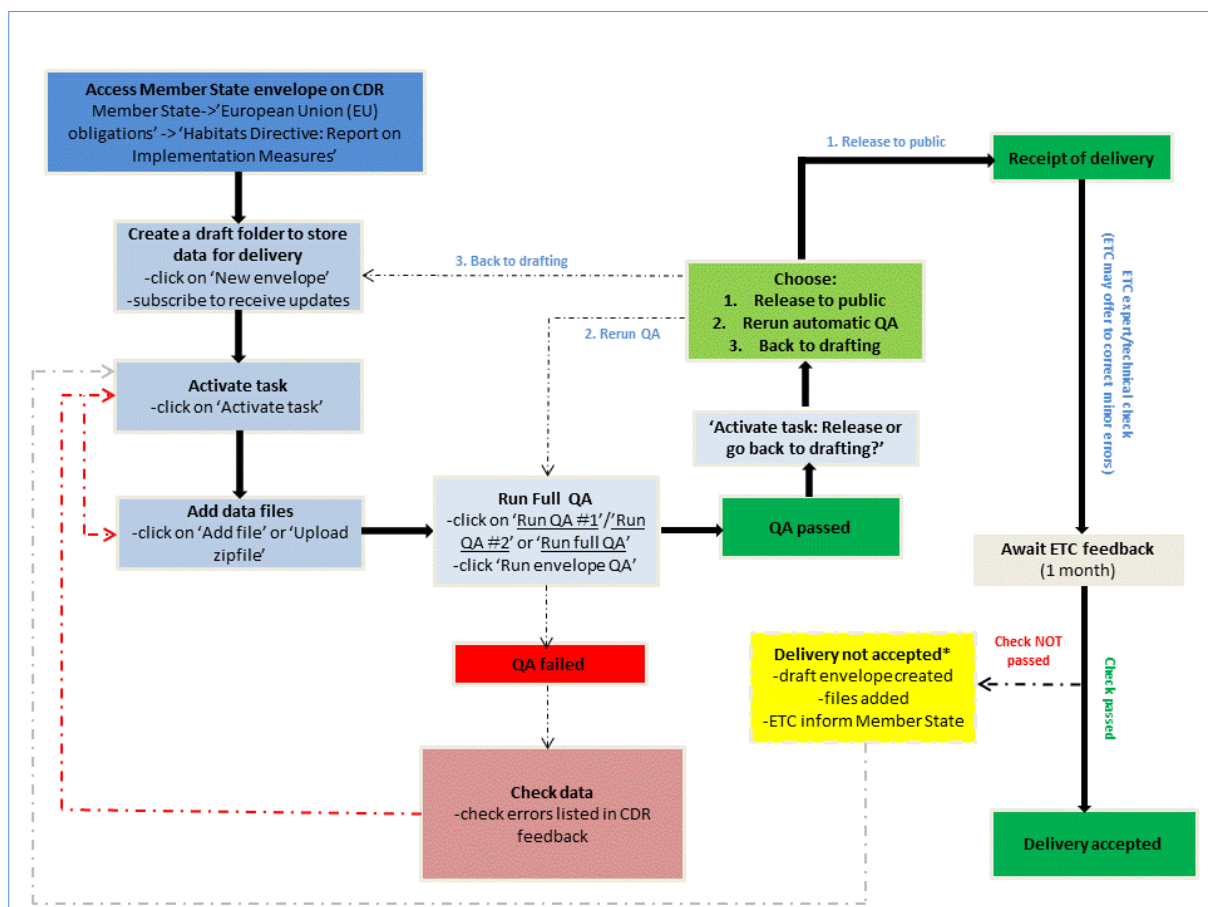
3.1   Accessing the draft envelope

After logging onto CDR, the nominated coordinator will access their country folder and create the data delivery envelope as follows:

☐ 🗀 European Union (EU), obligations   03 Apr 2019

| Overview | Task list | Edit properties | List of reporters |

BirdsDirective   New referral

Obligation(s) Report on progress and implementation (Article 12, Birds Directive)   New envelope

There is no naming convention nor is there a limit on the number of folders that can be created. Details can be filled in as shown below.

Fill out the fields in this report profile and click *Add*. This will create an *envelope* into which you make the delivery.

Title	Article 12 data delivery
Description	Article 12 bird species tabular and spatial data delivery for the reporting period 2013 - 2018.
Relating to which year	2018 Not applicable ▼ to
	Please enter the year covered by the dataset you are reporting
Coverage	France
Coverage note	
	Add

3.2   Activating the task and uploading data

Once the envelope has been created, 'Activate task' will allow data files to be uploaded to the envelope. There are 2 other tabs besides the 'Overview' (see below): 'Edit properties' allows the renaming of the envelope or addition of further descriptions, 'History' shows a summary of all activity in the envelope.

The user can now subscribe to receive notifications of any changes or updates to the folder (toolbar on left-hand side of the screen). This is particularly useful at the end of the process when the user is awaiting updates from the ETC such as the need for a data resubmission. The user will also see that a 4th tab becomes visible (Draft Delivery), which has all the tools needed for uploading files:

- *Add file*
- *Upload zipfile:* using this option for zipped files instead of 'Add file' will unzip and upload individual files within a zip file (if adding a zipped file using the 'Add file' option will leave the file zipped within the folder).
- *Release envelope*: used at the very end of the process.
- *Deactivate task:* this is clicked to allow another user to work on the envelope.

Clicking on 'Add file' or 'Upload zipfile' will bring the user to the 'Add Document' window below. Here an alias of the file name can be is given. The actual file name where it is stored and worked on locally, should adhere to the file naming convention as outlined in Table 2.1 as this is checked as part of the QA process. **File names not in the correct format will be rejected**. It is also at this point that sensitive data must be highlighted i.e. 'Restricted from

public view'. Spatial data files containing sensitive species data will need to be uploaded as a separate file. In the tabular data, there is a field to highlight sensitive species therefore there is no need to upload a separate XML for these.

Add Document

Warning:
If the filename already exists in the envelope, the existing file will be overwritten.

Title

File   Choose File   No file chosen

Id   (optional)

Restricted from public view ☐

Add

3.3   Running the QA procedures

Below are the QA options that become available once the envelope is populated with data files. All Member State deliveries need to be in a uniform format in order to ensure all essential data are present and in a way that all deliveries can be amalgamated into a European database. Therefore, various stages of quality control have been built into the CDR data upload process to allow the user to ensure that their data conforms to the validation rules[12].

- *Run full QA*: this will run a QA procedure on all files within a folder in one go (i.e. it includes Run QA #1/ Run QA #2 on all files in the envelope and Run envelope QA) . This can be used at any time i.e. not all files need to be present to run this.
- *Run envelope QA*: this summarises the presence or absence of mandatory files.
- *Run QA #1/ Run QA #2*: these are 2 procedures that are run on the individual XML[13] files. These are the same QA procedures that are implemented under *'Run full QA'*, it

[12] Validation rules for data delivery: http://cdr.eionet.europa.eu/help/birds_art12

[13] Run QA #1/ Run QA #2 are not run on spatial data. The only automatic QA for these files will be a check to see that they comply with the naming convention. Spatial data will be checked manually after data release (providing the correct naming convention is used and the data pass the 'Run envelope QA')].

allows the user to run the individual procedures on individual files as the *'Run full QA'* may take some time.

To note: Run QA #1 and Run QA #2 are two separate processes i.e. one does not need to be passed in order to run the other. However, if either QA procedure returns blockers for any of the uploaded files, it will not be possible to release the envelope (see Annex 2 Rules for the acceptance of Member State deliveries on CDR).

To note: Normally the QA button should appear; however if a Member State uploads data and no QA buttons are visible it means that there are significant issues relating to the structure of the xml files e.g. some of the structural features of file are missing, the xml file cannot be opened, etc.

Run QA #1: This is the validation of compliance of XML files with XML schema[14] (XML schema validation).

Where errors are present in the XML file, these are described and listed as shown below. Where data have been rejected a 'blocker' flag is shown. Triggered error messages direct the user to the location in the XML file.

A successful *Run QA #1* on the species report is shown.

Run QA #2*:* This QA check ensures the reported data comply with the validation rules[15] i.e. that essential fields are completed, data is in the correct format etc. Below is an example of

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[14] XML schema: https://dd.eionet.europa.eu/schemaset/habitatsdirective/view

[15] Validation rules
(http://cdr.eionet.europa.eu/activities/Reporting/Article_12/Reports_2019/Files_2019/Art12_validation_rules_Birds_Directive_20180829.xls)

Run QA #2 highlighting errors with data entry for a species. The error messages are described as either error, warning or blocker[16].

At the initial view each error record (line) provides (from the left) the field name it is associated with, error type (error, blocker, warning) and code and a brief error definition (e.g. Invalid code). Each error is associated with an error code (e.g. **BLOCKER - B018**) that is detailed in the validation rules document.

Clicking the field name will expand the detailed error description (as shown in the figure above) composed of value(s) entered into the field (e.g. **p** for pairs has been entered as a population unit, which is not recommended in the checklist) and the error definition.

In some specific situations, the Run QA #2 button is not available ('n/a' is shown instead). This may occur if file sizes are too large. In order to get this QA result, it's necessary to use the 'Run full QA' function. To ensure that the issue is indeed the file size, click the link to the XML field and the following message will appear:

'***Run envelope QA'*** is the procedure to check the presence of all mandatory files. Highlighted in red below is an example where some mandatory files are missing[17] (and therefore the delivery will be blocked). (Optional files are also highlighted in orange just as a reminder.)

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[16] Error = a major error but data reported is not blocked, Warning = a potential (or insignificant) error and data reported is not blocked, Blocker = a major error and data reported is blocked in tool and/or Reportnet.

[17] If any files as part of the data delivery are not named correctly, these will register as 'missing files'.

QA result for envelope

Validation of content of delivery (presence of mandatory files)

1) Mandatory files check results:

Some of mandatory files below are missing:

- General report: FR_birds_general_report.xml

2) Optional files check results:

All mandatory files are present.

Below is an example of feedback where all data files have been submitted but where the envelope QA failed because the files did not adhere to the naming convention. There was an error in naming the 'FR_Art12_birds_reports', this file is registered as a missing file (FR_birds_reports%.xml).

QA result for envelope

Validation of content of delivery (presence of mandatory files)

1) Mandatory files check results:

Some of mandatory files below are missing:

- Birds reports: FR_birds_reports%.xml
- General report: FR_birds_general_report.xml

To note: The '%' at the end of the file name in the figure above is automatically inserted by CDR for this automated feedback. See file naming convention in Table 2.1 for details on file names.

'***Run full QA'*** runs all QA procedures on all files within the envelope. In addition, it informs the user whether the delivery of data in the envelope can be accepted by CDR or not. The result of the ***Run full QA*** for a data delivery is shown below (QA returns: delivery not acceptable & QA returns: delivery acceptable).

Clicking the Run full QA once all files are uploaded may take a substantial amount of time[18]. During this process, the envelope can be exited and the user may log out of the CDR site as the QA procedure will continue to run in the background. Progress can be monitored as highlighted below; the message beside the spinning wheel icon inform the processes the CDR is performing and will change as the QA is being undertaken on the different files.

After running the procedure, the 'Feedback for this envelope' section across the bottom of the page has been populated with a series of automated notices[19]. These include:

- Automatic validation saying whether the uploaded data are acceptable (i.e. do not contain blockers) or not. This is located at the top of the list.

- Feedbacks from both the QA checks (*Run QA #2)* and the schema validation (*Run QA #1)* for each XML file.

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[18] This depends on the size of the files.
[19] Re-running the Run full QA will replace the previous QA feedback.

QA returns: delivery not acceptable (some of the uploaded files contains blocker errors):

If the QA procedure fails (see below), the feedback to the envelope will contain at the top of the list 'Automatic validation: Data delivery was not acceptable' (see below).

This data delivery will not be accepted by CDR unless necessary corrections are made Clicking on the link to this notice (i.e. 'Automatic validation: Data delivery was not acceptable') will show a list of the files that are preventing the data delivery. Files where blockers are activated will have the flag [BLOCKER]. Files with other issues (wrong data format etc) will be highlighted with the flag [INFO]. These files will not prevent the envelope from being released, only the files where blockers are activated will do this. Clicking on the links for the individual files in the 'Feedback to the Envelope' will provide more information about fields in the XML files that are causing issues.

Feedback: Automatic validation: Data delivery was not acceptable   Back to envelope

Subject:	Automatic validation: Data delivery was not acceptable
Posted automatically on:	12 Apr 2019 15:31
Feedback status:	empty
Feedback message:	empty

Data is refused

Your delivery can not be accepted as one or more of the acceptance conditions were not met:

- not all mandatory files (including projection file for spatial data) have been submitted or are valid (see AutomaticQA result for envelope)
- bird species report does not conform to the data model defined in the XML Schema (see [BLOCKER] AutomaticQA result for file FR_birds_reports_20190408-121042.xml: XML Schema validation)

The conditions for accepting Member State deliveries are outlined in the Delivery Manual for Article 17.

For additional information contact nature.helpdesk@eionet.europa.eu

The delivery was submitted by: (user name: *reporter*)

The above[20] data delivery has been rejected due to blockers. The blockers ought to be addressed before data can be accepted.

QA returns: delivery acceptable

If all QA procedures are passed and there are no blockers, 'Automatic validation Data delivery was acceptable (1st feedback)' states that data delivery was acceptable. The data delivery will be succesfull (won't be blocked by CDR).

Note: If 'Run full QA' is succesfull, the evelope is sent to 'Activate task: Release or back to drafting' status. This is because the Run full QA re-uses routines implemented at the very beginning of the 'Release envelope step'. Click 'Activate task' and 'Back to drafting' to continue working in the envelope.

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[20] The text in the 'Feedback' section may differ slightly from the screenshot above.

3.4   Release envelope

If the delivery is ready (Run full QA returns: 'delivery acceptable'), proceed with releasing the envelope. Only if the envelope is released the data are considered delivered. 'Release envelope' will re-run full QA and the user will be asked to confirm 'release to public'.

After clicking 'Release to public', the delivery becomes public and cannot be modified any more. A receipt of delivery is automatically generated by the CDR and posted to the feedback area of the envelope. It confirms that the report was delivered in CDR, mentioning the date of submission to CDR and providing a link to the Member State envelope and the list of submitted files.

This receipt of data delivery needs then to be forwarded to the European Commission via the Member State's Permanent Representation to the EU (see below section 3.5).

After this step, additional feedback may be provided by the ETC and the Member State may be requested to resubmit data.

3.5   Finalising the data delivery

After the delivery in CDR, Member States should send an official letter (see Annex I) via its Permanent Representation to the Commission (addressed to Mr. Nicola Notaro, Nature Protection Unit, DG Environment) including the receipt of delivery generated by CDR System and making reference to the relevant Directive (Article 17 of the Habitats Directive) and the agreed reporting framework.

4   Post-data submission

4.1   Correction of data needed

Unlike the previous reporting round, there is no standardised "2nd delivery" for Member States. Under exceptional circumstances however (see 'Annex 2 Potential resubmission of the national reports') a request might be made for a Member State to resubmit their data based on both a **technical and expert check** carried out by the ETC, after the data have been delivered according to the procedure outlined above (Section 3).

Where a resubmision is necessary, the ETC will issue a 'feedback' to the original envelope and will 'request redelivery'. This means that original data can not be used prior to corrections by the Member State and that the Member State is requested to resubmit their

report. In addition, 'Further instruction for requested redelivery' feedback is posted at the bottom of the feedback part, which should be followed when preparing the ressubmission. Data coordinators who subscribed for notifications (see p. 15) will be notified automatically. It is therefore necessary that the coordinators subscribe for notification in order to be informed on any changes of the envelope status (posting feedback by ETC, requesting resubmission or completing the envelope).

The 'QA report – delivery rejected' feedback provides further details of why the redelivery is needed and actions to be taken for data resubmission.

At this point the envelope is in 'redelivery requested' status and is only accessible to the data coordinators. No further work can be done in this folder but the new envelope for redelivery is automatically created (the link and further instructions are provided in the 'Further instructions for requested redelivery' – see below).

The new envelope for the redelivery will be named as the original but with the suffix "-Redelivery" at the end. This envelope will be populated with the files from the original envelope.

4.2 Delivery completed

If the data upload (or corrected data reupload) passes the QA procedures and has satisfied the ETC technical and expert check, the ETC will set the envelope to 'accept delivery' and will post an 'Envelope is complete' status to the envelope.

Description	
Obligations	Report on progress and implementation (Article 12, Birds Directive)
Period	2018 - Not applicable
Coverage	France
Status	Envelope is complete

Additional feedback may be posted to the envelope before completing, sumarising all necessary corrections of reported data in harmonised EU dataset[21]

4.3 Timeline for data re-delivery

The deadline for data delivery has been set for 31st July 2019

Figure 4-1 Timeline for data delivery

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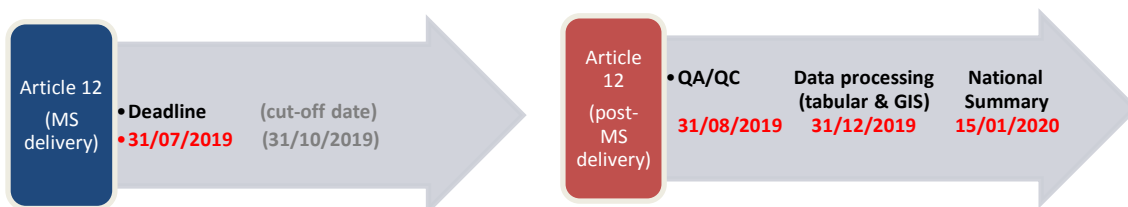
[21] As specified in document (https://circabc.europa.eu/d/a/workspace/SpacesStore/e4574a88-6d35-4616-97b4-af0ad53e9f6a/Point%202.c%20-%20Note%20on%20submission%20of%20national%20reports.docx), after the submission, the reported data undergo a checking and harmonisation process (e.g. harmonising the codes for type of occurrence in the Member State reported checklists, harmonising the format of trend magnitudes, harmonising the indication of 'sensitive species' between tabular and spatial data, etc.). As a part of this process some smaller errors may be corrected by ETC in the 'harmonised' dataset (after communication with Member State). Harmonised data from Member States are merged to produce European datasets; these datasets will be used to produce a variety of statistics, analysis and assessments, including the National Summaries and European Commission composite report.

- The cut-off date for Article 12 reporting is for possible resubmission of data by a Member State, should the need arise as a result of failings in the initial QA/QC check by the ETC/BD & EEA (which takes place within 1 month of data submission).

5   Links to other data sources

European Terrestrial Reference System 1989 Lambert Azimuthal Equal Area Latitude of origin 52 N, Longitude of origin (central meridian) 10˚E. (http://www.eionet.europa.eu/gis)

Annex I Example of letter informing the European Commission of data delivery

Each Member State sends the confirmation receipt from the CDR after the successful delivery to its Permanent Representation to the EU. This is an example of letter to be sent to the European Commission from the Permanent Representation of the Member State about the data delivery to the CDR:

<div align="right">

Mr. Nicola Notaro
Nature Protection Unit
DG Environment
European Commission
B – 1049 Brussels
Belgium
[Date]

</div>

Subject: Delivery of national report under Article 12 of the Birds Directive

Dear Mr. Notaro,

On behalf of **[Member State],** I would like to inform you of the delivery of the **[Member State]** national report as required by Article 12 of Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds. I attach the confirmation receipt of this delivery.

Sincerely yours,

_____

Permanent Representation to the EU of **[Member State]**

Attachment:

Feedback: Receipt of delivery of the Report on progress and implementation (Article 12, Birds Directive)

Subject:	Receipt of delivery of the Report on progress and implementation (Article 12, Birds Directive)
Posted automatically on:	13 May 2019 11:22
Feedback status:	empty
Feedback message:	empty

European Environment Agency
Kongens Nytorv 6
DK 1050 Copenhagen K

To Whom It May Concern

This is a confirmation of receipt for national data submissions under the reporting obligation

- Report on progress and implementation (Article 12, Birds Directive)

The following delivery has been submitted for '**Member State'** to the Reportnet Central Data Repository (CDR) and was made available on **30 July 2019**

Envelope:	Art 12 delivery
Location:	https://cdrtest.eionet.europa.eu/...

List of files:

- XX_Art12_reporting.gdb
- XX_general_report.xml
- XX_species_checklist.xml
- XX_species_reports-20190311-110114.xml

The above-mentioned files were submitted by user: coordinator

In order to officially confirm this electronic data submission, please append this receipt to the communication from your Permanent Representation to the European Union to the European Commission.

In exceptional cases, a redelivery of this report can be requested (see Delivery manual for Article 12 data for more details) in order to correct errors that will prevent data from being used.

This confirmation is electronically generated by the Reportnet system and therefore not signed.

Annex II Rules for submitting the national reports

Rules for the acceptance of Member State deliveries on CDR

The dataset consisting the national Article 12 reports should:

- be complete (contain all mandatory files, follow the naming convention specified in Delivery manuals);
- conform to standard file formats as specified in Delivery manuals and
- adhere to 'principal data quality requirements'

Not fulfilling these conditions will prevent the national data from being submitted via CDR (it will not be possible to accomplish successfully the reporting task on CDR). Further details are provided below.

Complete set of files following the naming convention

The Delivery manuals specify the list of mandatory files that should be uploaded to the Member State envelopes as the national Article 12 reports and file names to be used.

Standard file formats

The tabular data collected by Member States will ultimately be delivered to CDR using XML file format. Principal standards (e.g. field names, xml structure) of xml files composing the Member State delivery are provided in XML schemas[22] available also via the Article 12 Reference portal[23]. Together with the names and structure of xml elements the xml schemas define the data types (text, numeric, Boolean, etc.) for all xml elements (fields in the report formats).

The Reference portals contain further guidance for the use the XML schemas (under the heading 'Mapping XML elements to the report formats').

The CDR envelopes will contain a function to check whether uploaded files are conforming to the xml schemas. The xml files can also be validated against xml schemas before they are uploaded to CDR at http://converterstest.eionet.europa.eu/validation[24].

The spatial data should be delivered using file formats and following specifications outlined in the Delivery manuals.

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[22] https://dd.eionet.europa.eu/schemaset/habitatsdirective/view
[23] http://cdr.eionet.europa.eu/help/birds_art12
[24] It is reccomended that, particularly Member States not using the EEA reporting tools to create the xml files, validate their xml files at http://converterstest.eionet.europa.eu/validation before they are uploaded to CDR

Principal data quality requirements

Principal data quality requirements consist of a series of validation conditions which must be fulfilled in order to submit the data via CDR. These rules (together with the data type properties defined in the xml schemas) concern quality issues that would prevent data delivered in the xml format from being converted into a workable database. These are for example missing habitat/species or Member State codes or using codes for structured information which are not included in the Data Dictionaries.

The list of validation rules (blockers) that would block the dataset from being delivered via CDR is provided in the Reference portals[25] (together with the total list of validation rules).

The lists of codes to be used for the structured information in the report formats (reporting tool and xml schemas) are available via EEA Data Dictionaries webpages under 'Vocabularies'[26] : 'art12_2018'.

Potential resubmission of the national reports

In general, unless national delivery contains significant issues, only one submission of Article 12 national report, is expected. Previous experience showed that in most cases the in depth post-submission QAQC and systematic second delivery of the national reports did not lead to a significant improvement of the quality of reported data. Therefore, the second delivery will not be requested systematically.

Member States should assure that the national reporting datasets contain all mandatory information, are technically valid and follow the requirements outlined in the Explanatory Notes and Guidelines prior to the submission. The quality analysis routines available via the CDR and reporting tools are designed to assist Member States with this task.

However, in cases specified below and in case some serious issues preventing further use of the information will be identified, Member States will be requested to consider the resubmission of their national reports.

The quality issues triggering the request for resubmission of national reports

Article 12 reports

Population size (field 2.2 Population size) is incorrect (e.g. 'Minimum' is bigger than 'Maximum', 'Best single value' is not in the interval Minimum - Maximum, ambiguous use of 0)

Distribution maps do not follow the specifications in the Delivery manual

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[25] Validation rules for Article 12 reporting tool and CDR
http://cdr.eionet.europa.eu/help/birds_art12/Reporting%202019/Art12_validation_rules_Birds_Directive.xls
[26] http://dd.eionet.europa.eu/vocabularies

Distribution maps are incoherent with tabular information in terms of species codes used

Pressure or threats (section 7 Main pressures and threats) are not following the requirement of maximum of 10 reported pressures or threats and maximum of 5 ranked 'High' for each.