



Reporting guidance for SoE WISE-3 Water quantity using Reportnet 3

Date: December 2022

Document History

Version	Date	Author(s)	Remarks
1.0	05-12-2022	AU, CV, CW, FM, JBM, MF, SS	



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Overview

These guidelines explain how to use Reportnet 3 (the European Environment Agency's new digital infrastructure for data collection) for reporting information for WISE-SoE WISE-3 (Water Quantity). WISE-3 (Water Quantity) reporting is used for Streamflow and groundwater level observations reported by monitoring site (daily, monthly, quarterly or annual data) and other information relevant to water quantity (reservoir volume, water resources, water abstraction, use and returns). Links to the dataflow, data dictionary and further supporting documents are provided in this document.

The reporting is organised by the European Environment Agency (EEA) supported by ETC/ICM (resp. by ETC-BE since 2023 onwards)

User accounts and access permissions

For [reporting in Reportnet 3](#), an EU login with the same email as is used for reporting is required as well as permission to upload the national delivery. Each country should have a Lead reporter for the WISE-3 (Water quantity) reporting - these should be nominated by the NFP writing to the WISE SoE Helpdesk (wisesoe.helpdesk@eionet.europa.eu) and specifying the person and dataflow required. Lead reporters can provide access to the dataflow for other reporters (roles Reporter write, Reporter read).

In 2022, unless requested otherwise, EEA has used the Eionet [LDAP list of country reporters, previously used for reporting of WISE-3 under Reportnet 2](#), to set up the list of Lead reporters. Any changes of nominated Lead reporters are to be delegated through the [EIONET – national Focal Points](#).



1 Reporting process step by step

1.1 Step 1: Download WISE-3 Data Dictionary and WISE-3 reporting template

Go to the WISE-3 Data Dictionary page (Datasets -> [WISE SoE - Water Quantity \(WISE-3\)](#)). Click the “Exports” section (Figure 1) and you can e.g. download the latest version of:

- Technical specification (.pdf)
- Data set templates (.xls; XML)
- Codelists (.csv; XML).

Figure 1: Downloading WISE-3 templates and documentation using “Exports” function (red circle)

The screenshot shows the EIONET Data Dictionary interface. The left sidebar contains a menu with 'Exports' highlighted and circled in red. The main content area is titled 'View dataset definition' and includes several export options:

- Create technical specification for this dataset
- Create an XML Schema for this dataset - version 1
- Create an MS Excel template for this dataset - version 1
- Get the comma-separated codelists of this dataset
- Get the codelists of this dataset in XML format

Below the export options is a metadata table:

Identifier	WISE-SoE_WaterQuantity
Short name	WISE SoE - Water Quantity
Registration status	Released 07 June 2022
Reference URL	http://dd.eionet.europa.eu/datasets/latest/WISE-SoE_WaterQuantity
Name	WISE SoE - Water Quantity (WISE-3)
Keywords	Water, water quantity
Short Description	Data on water quantity.
Definition	Data on freshwater resources, water abstraction and water use at regional level, reported by countries within the WISE-SoE reporting.

By clicking the “Create technical specification for this dataset”, data dictionary pdf can be opened and downloaded.

The General help page with the data dictionary for WISE-3 can be found here:

https://cdr.eionet.europa.eu/help/WISE_SoE/wise3



The template in tabular format includes seven WISE-3 reporting tables (sheets):

Figure 2: Overview of Water Quantity (WISE-3) dataset tables

Dataset tables

Full name	Short name
Monitoring Data	MonitoringData
Reservoir Data	ReservoirData
Renewable Freshwater Resources	RenewableFreshwaterResources
Additional Water Resources	AdditionalWaterResources
Water Abstraction	WaterAbstraction
Water Use	WaterUse
Water Returns	WaterReturns

A detailed description of the different reporting tables is given in the WISE-3 Data Dictionary, e.g.:

- Monitoring data
https://dd.eionet.europa.eu/datasets/latest/WISE-SoE_WaterQuantity/tables/MonitoringData
 - Reservoir data
https://dd.eionet.europa.eu/datasets/latest/WISE-SoE_WaterQuantity/tables/ReservoirData
- etc.

1.2 Step 2 (optional): Download pre-filled spatial data file from WISE restricted area

The dataset of the most recently reported spatial objects (monitoring sites, water bodies and river basin districts) is available at the linked "WISE restricted access area":

https://forum.eionet.europa.eu/x_wise-reporting/library/restricted_distribution/

Mentioned spatial objects are stored in the files WFD-SpatialData_{YYYY}_{CC}.zip (for WFD-reporting countries) and EIONET-SpatialData_{CC}.zip (for countries not reporting under WFD). ({YYYY} = highest available year, {CC} = country code).

For reporting of time series Water quantity data, spatial objects available in these files should be used.

EIONET-SpatialData_{CC}.zip file is also available for most of WFD-reporting countries, but according to the EEA decision (done in Autumn 2022), spatial objects stored in WFD-SpatialData_{YYYY}_{CC}.zip file should be used by these countries for WISE-SoE reporting only.



Figure 3: Downloading prefilled spatial data

Eionet Forum
Reporting under the WISE Water Directives and WISE SoE

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Eionet > Forum > Reporting under the WISE Water Directives and WISE SoE > Library > WISE restricted access area > CZ

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CZ [Limited access] Zip download

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Submit:

<input type="checkbox"/>	Type	Title	Restrictions	Owner	Modification date and time	File size	Edit
<input type="checkbox"/>		BWD_ProtectedArea_CZ		EEA Discomap	09/08/2022, 13:17	22 KB	
<input type="checkbox"/>		BW_CZ_2018		EEA Discomap	26/11/2019, 10:55	40 KB	
<input type="checkbox"/>		BW_CZ_2019		EEA Discomap	10/12/2020, 13:53	36 KB	
<input type="checkbox"/>		CZ_2018-10-17T09:15:50_Prefilled_PoM_2018		EEA Discomap	17/10/2018, 09:15	385 KB	
<input type="checkbox"/>		CZ_2018-10-17T09:53:40_Prefilled_EQS_2018		EEA Discomap	17/10/2018, 09:53	329 KB	
<input type="checkbox"/>		CountryBoundaries		Fernanda Nery	22/10/2015, 10:08	278 KB	
<input type="checkbox"/>		EIONET-SpatialData_CZ		EEA Discomap	09/03/2022, 10:30	122 KB	
<input type="checkbox"/>		UWWTD_ProtectedArea_CZ		EEA Discomap	24/08/2021, 12:09	52 KB	
<input type="checkbox"/>		UWWTD_SensitiveAreas_2016_CZ		Miroslav Fanta	14/11/2017, 13:35	117 KB	
<input type="checkbox"/>		WFD-SpatialData_2010_CZ		EEA Discomap	16/12/2020, 13:51	21 MB	
<input type="checkbox"/>		WFD-SpatialData_2016_CZ		EEA Discomap	16/12/2020, 13:51	24 MB	
<input type="checkbox"/>		WFD_ProtectedArea_CZ		EEA Discomap	10/11/2021, 10:28	5 MB	

1.3 Step 3: Log on to Reportnet 3

The Reportnet 3 production platform (Figure 2) is found here <https://reportnet.europa.eu/>

<https://reportnet.europa.eu/>

Before logging in at that page in a first step an EU login is needed. If you do not have an EU login, follow the steps described here:

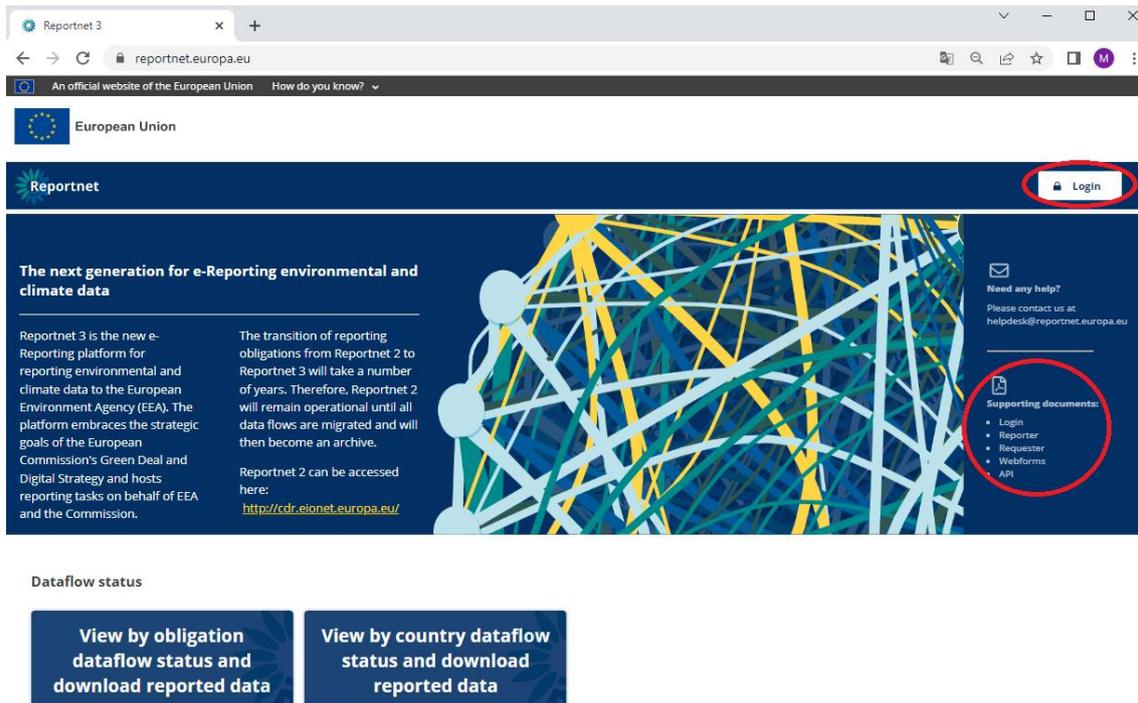
https://www.eionet.europa.eu/reportnet/docs/prod/howto_login_reportnet3.0

Login and common functions of Reportnet 3 are described in a common guidance:

https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3.0

Supporting documents can also be found on the right side of the landing page of Reportnet3 (see Figure 4 below, red circle).

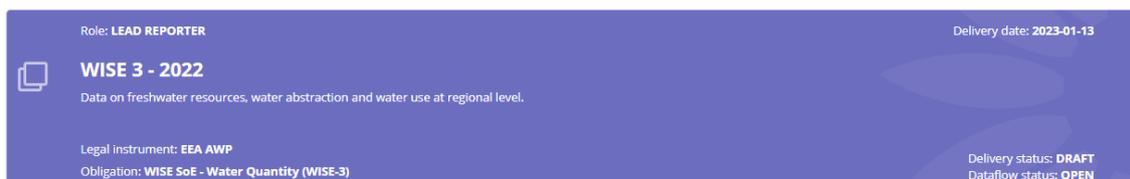
Figure 4: Reportnet 3 -Login page



1.4 Step 4: Open the WISE-3 dataflow

Once you are logged in, you will see all data flows to which you can contribute. Choose the latest WISE-3 dataflow (e.g. 2022). By clicking on it, you will reach the dataflow overview page. Each reporter will see only her/his country data.

Figure 5: Selecting WISE-3 data flow (example: 2022 reporting exercise)



Using of the direct link to the data flow is possible as well:

<https://reportnet.europa.eu/dataflow/561>

1.5 Step 5: Go to reported data

The dataflow overview page provides the most relevant functions to delivering reporting (see Figure 6).

- **Dataflow help:** Here you will find three tabs showing WISE-3 specific information:
 - Supporting documents
 - Web links



- Dataset schemas. This tab contains information similar to the WISE-3 Data Dictionary, list of relevant QC rules, specification of fields creating together unique keys for each table and information on external integrations (see Figure 7)
- **Reference dataset:** Here you will find list of all relevant information important for proper preparation of the WISE-3 country dataset (Figure 8):
 - List of spatial units (countries, RBDs, SubUnits)
 - List of all monitoring sites
 - Code listsReference data cannot be edited by reporters.
- **Reporting data.** Here you can upload and validate the data
- **Release to data collection.** For submitting your reported data once you have uploaded and validated

Figure 6: Dataflow overview (example – Czech Republic)

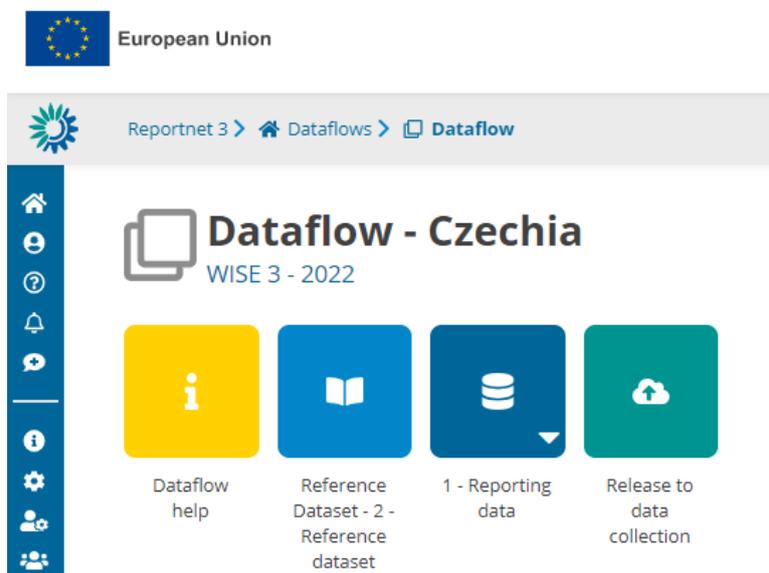




Figure 7: Dataflow help page

Figure 8: Reference dataset page

2 - Reference dataset

WISE 3 - 2022 - Reference Dataset - 2 - Reference dataset

Validations	spatialIdentifier	spatialIdentifierScheme	countryCode	status	URI
	HUGWOADF625	euMonitoringSiteCode	HU	stable	http://dd.eionet.europa.eu/vocabulary/wise/monitoringSite/euMonitoringSiteCode.HUGWOADF625
					http://dd.eionet

1.6 Step 6: Upload the WISE-3 tabular data

Go to 1-Reporting data on the dataflow overview page (Figure 6 above) and you will reach the data reporting page (Figure 9).

On the data reporting page you will find seven WISE-3 tables, which are empty if you get there for the first time.



Figure 9: WISE-1 1- Reporting data page (example: Czech Republic)

1 - Reporting data Pending
WISE 3 - 2022 - Czechia

Import dataset data Export dataset data Delete dataset data Validate Show validations QC rules Dashboards Manage copies Refresh

MonitoringData ReservoirData RenewableFreshwaterResources AdditionalWaterResources WaterAbstraction WaterUse WaterReturns

Import table data Export table data Delete table data Show/Hide columns Validation filter Filter by value

Actions	Validations	monitoringSiteIdentifier	monitoringSiteIdentifierScheme	observedProperty	phenomenonTimePe
Rows per page: 10					
Go to 1 of 1					Total: 0 records
+ Add record					Paste records

Now you can upload the filled WISE-3 template containing your data delivery. It is also possible to import each data table separately.

To import a new WISE-3 data file (currently only .xls, .xlsx and .csv is possible) click on the “Import dataset data” button on the top left menu (Figure 10). Select the file to be uploaded.

Figure 10: Import WISE-3 dataset

Import dataset data Export dataset data Delete dataset data Validate Show validations QC rules Dashboards Manage copies Refresh

ZIP (.csv for each table)

Custom file imports

Import Excel file (.xls,.xlsx)

Import table data Export table data Delete table data Show/Hide columns Validation filter Filter by value

Actions	Validations	monitoringSiteIdentifier	monitoringSiteIdentifierScheme	observedProperty	phenomenonTimePe
Rows per page: 10					
Go to 1 of 1					Total: 0 records
+ Add record					Paste records

The application will automatically extract the national data from the uploaded file and transfer it into the dataset – shown in the data tables (Figure 12). The originally uploaded file itself is not stored on the platform. Notifications in the top right will inform you the import has started and when it has finished (Figure 11). Use the Refresh button afterwards, to display the uploaded data.



Figure 11: Notification on the successful data upload, Release button

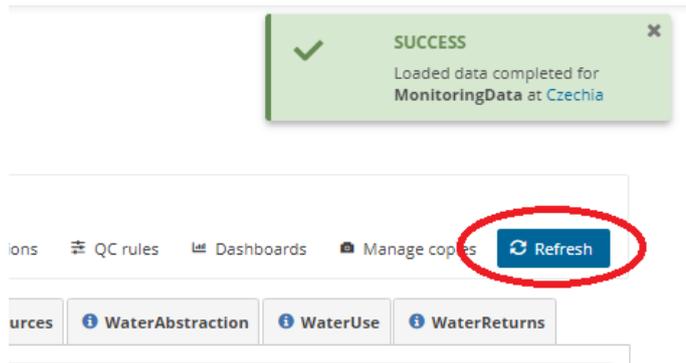
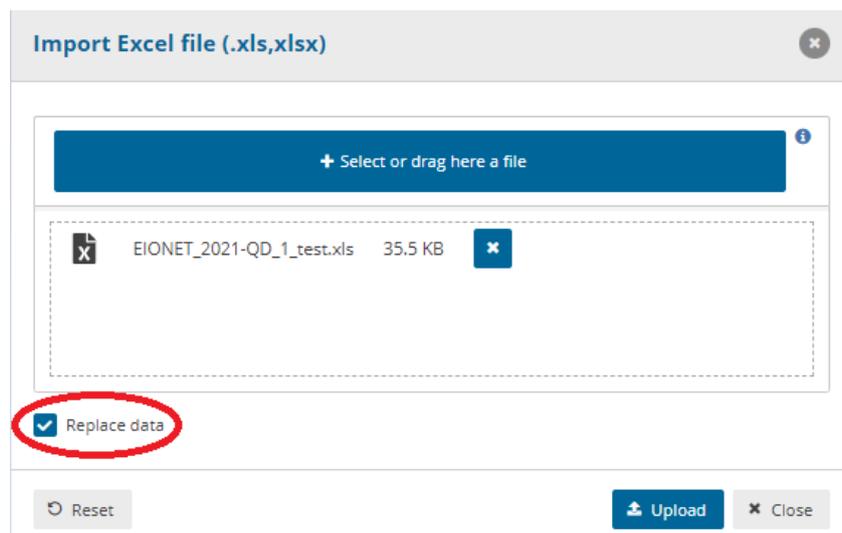


Figure 12: Filled WISE-3 data table with uploaded data (example: Czech Republic)

Actions	Validations	monitoringSiteIdentifier	monitoringSiteIdentifierScheme	observedProperty	phenomenonTimePeriod	resultObservedValue	
		CZ200100	eionetMonitoringSiteCode	SF	2020-01-01	44.6000	A
		CZ200100	eionetMonitoringSiteCode	SF	2020-01-02	46.7000	A
		CZ200100	eionetMonitoringSiteCode	SF	2020-01-03	42.4000	A
		CZ200100	eionetMonitoringSiteCode	SF	2020-01-04	45.2000	A
		CZ200100	eionetMonitoringSiteCode	SF	2020-01-05	46.5000	A

If you are importing the entire dataset again (e.g. after QA/QC), then make sure to choose **“Replace data”** in the tick box (Figure 10). If you do not want to replace the data, but just add new ones, do not tick this box, in which case new rows will be appended to the current tables.

Figure 13: Reimport of the dataset





1.7 Step 7: Run Quality control checks (QA/QC)

A first check against the data model (schema) is run during data upload (step 4). After the data are successfully imported all the QC checks defined for WISE-1 need to be run.

For validating the entire dataset follow the described process using the menu buttons shown in Figure 14.

Figure 14: Validation tools (Reportnet 3)

1 - Reporting data Pending
WISE 3 - 2022 - Czechia

The screenshot shows the Reportnet 3 interface for '1 - Reporting data' (Pending) for 'WISE 3 - 2022 - Czechia'. The top navigation bar includes buttons for 'Import dataset data', 'Export dataset data', and 'Delete dataset data'. A red box highlights the 'Validate' button, along with 'Show validations', 'QC rules', and 'Dashboards'. Below this, there are tabs for 'MonitoringData', 'ReservoirData', 'RenewableFreshwaterResources', 'AdditionalWaterResources', 'WaterAbstraction', and 'WaterUse'. The main content area shows a table with columns for 'Actions', 'Validations', 'monitoringSiteIdentifier', 'monitoringSiteIdentifierScheme', and 'observedProperty'. The table contains one row with values: 'CZ200100', 'eionetMonitoringSiteCode', and 'SF'.

1. **Start the QC-process** by clicking on the button “**Validate**” (dataset menu; Figure 14 above).
2. A notification in the top right will indicate that validation process has started and when it has been completed.
3. “**Refresh**” the data tables (dataset menu) once the validations are complete.
4. **Page through all validation results and sort them to understand errors in the data.**

There are different ways to look at the error messages caused by QC-test failures.

To get an overview of all validation results - Click on “**Show validations**” button (dataset menu) to open a table where all QC results in the dataset are listed. This table includes the following important information:

- Column ‘Entity’ – specifies the related entity for the QC failure. It could be on the level of a single FIELD, a RECORD, an entire TABLE or the whole DATASET.
- Column ‘Table’ – names the table with the error message.
- Column ‘Field’ – name of the field containing error
- Column ‘Code’ – identification of the error in the list of errors
- Column ‘Level error’ – describes the level of error message. If a QC-test fails, the following levels of flagging the data are used:
 - **INFO** – information that data (attributes) which are not defined as mandatory are missing. The data set is still deliverable.
 - **WARNING** – information that e.g. the reported year from the phenomenonTimePeriod value is outside of the expected range. The data set is still deliverable.
 - **ERROR** – information that shows there may be a real error. The data set is still deliverable, but the error should be accepted by the client (EEA or ETC expert).



- **BLOCKER** – information that e.g. a mandatory information (e.g. specification of the monitoring site (monitoringSiteIdentifier) is missing. Data set cannot be delivered. BLOCKER needs to be fixed first.

Only BLOCKERS will stop the data from being released to the data collection. Note however that, as part of the feedback process, the client (EEA/ETC) may subsequently request changes where non-blocking QC issues have been flagged.

- Column ‘Message’ – description of the specific error.
- Column ‘Number of records’ – specifies the number of affected records.

The button ‘QC rules’ (dataset menu) shows a list of all validations which have been created for the WISE-3 dataset and the level of error message they cause (Figure 15). A description of all defined WISE-3 QC rules can also be found here: https://cdr.eionet.europa.eu/help/WISE_SoE/wise3.

Figure 15: Button QC rules and list of WISE-3 QC rules in Reportnet 3

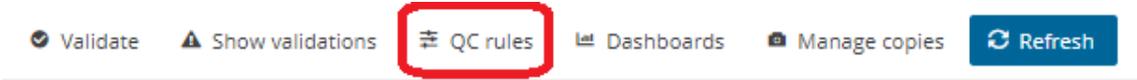


Table	Field	Code	Name	Description	Message	Expression	Type of QC	Level error
MonitoringData	monitoringSiteIdentifier	02b_spatialIdentifierFormat	Monitoring site identifier - format	Tests correctness of the monitoringSiteIdentifier value format.	The monitoringSiteIdentifier have incorrect format.	SELECT * FROM dataset_37861."monitoringdata" WHERE "monitoringSiteIdentifier" !~ "^[A-Z]{2}[0-9A-Z]{1}([0-9A-Z_]{0,38})[0-9A-Z]{1}){0,1}\$" OR "monitoringSiteIdentifier" !~ "^[A-Z0-9]{1,3}\$"	FIELD	BLOCKER
ReservoirData	waterBodyIdentifier	FC15	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty		FIELD	BLOCKER
MonitoringData		TU16	Table type unique constraint	Checks if monitoringSiteIdentifier, monitoringSiteIdentifierScheme, observedProperty and phenomenonTimePeriod are uniques within table	Uniqueness and multiplicity constraints - The fields monitoringSiteIdentifier, monitoringSiteIdentifierScheme, observedProperty and phenomenonTimePeriod are uniques within table		TABLE	BLOCKER
ReservoirData	resultObservedValue	FT20	Field type NUMBER - DECIMAL	Checks if the field is a valid NUMBER - DECIMAL	The value is not a valid integer or decimal number.		FIELD	BLOCKER
ReservoirData	waterBodyIdentifierScheme	FC21	Field cardinality	Checks if the field is missing or empty	The value must not be missing or empty		FIELD	BLOCKER

In the data tables where the fields and records are tagged, you have a detailed view of the error messages (Figures 16 and 17).

Figure 16: Erroneous records in the MonitoringData table identified by the QA/QC process



Actions	Validations	monitoringSiteIdentifier	monitoringSiteIdentifierScheme	observedProperty	2021
		CZ200100	eionetMonitoringSiteCode		2021
		CZ200100	eionetMonitoringSiteCode	Sfrest	2021



Figure 16: 'Show validations' - overview of validation results

Entity	Table	Field	Code	Level error	Message	Number of records
FIELD	MonitoringData	observedProperty	TC119	BLOCKER	The value is not a valid member of the referenced list.	1
FIELD	MonitoringData	observedProperty	FC50	BLOCKER	The value must not be missing or empty	1

Rows per page: 10 | Go to 1 of 1 | Total: 29 records (total errors: 2)

The column 'Validations' in each data table shows for each record which level of errors at field and record level occurred. Field level errors have icons next to the value (attribute) in the field. Hover over it to see the error message. It is also possible to filter records in the validation table to make it easier to work with. You can filter on the error messages either by the error level or the entity type. Double-click on an error in the list to go to the record in the table and it will be highlighted.

The 'Dashboards' (dataset menu) gives a visual overview of the number of errors in the data by table.

- Correct the data.** Corrections to the data should be made in your source data and the data file should be reimported. When the number of corrections is limited, they can also be made to the data tables directly in the records imported through Reportnet 3, by selecting the pen icon in the "Actions" column (Figure 17). Afterwards, it is recommended to export table data to avoid variations in the nationally stored data.

Figure 17: Tool for direct interactive correction of the data (pen icon)

Actions	Validations	monitoringSiteIdentifier	monitoringSiteIdentifierScheme	observedProperty
 		CZ200100	eionetMonitoringSiteCode	SF

- Reupload the data.** When reimporting your file, remember to either **Delete dataset data first or check the Replace data** in the import dialogue. Once imported, revalidate the data starting with step 1 again.

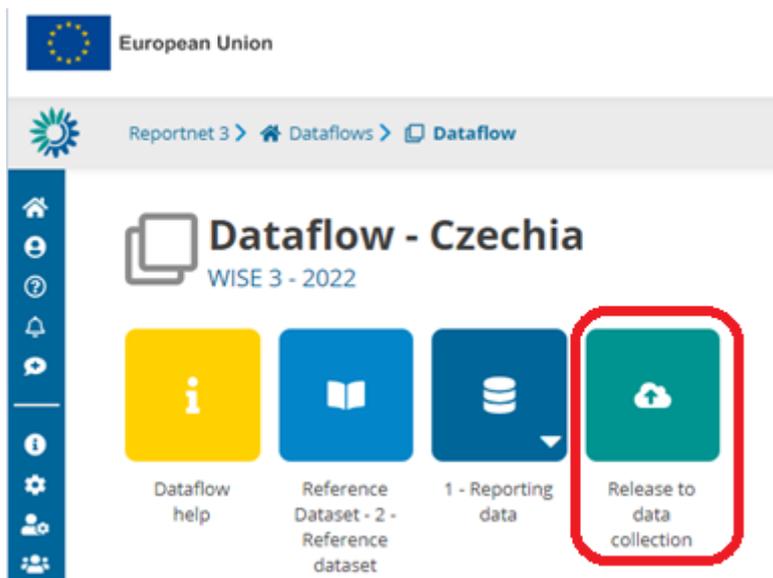
1.8 Step 8: Release the data to the data collection

Once you are satisfied with the uploaded data, complete your delivery by releasing to the data collection.

- Go back to the WISE-1 Dataflow overview page (Figure 18).



Figure 18: WISE-3 Dataflow overview – Release to data collection (example: Czech Republic)



2. Click on the button **Release to data collection**. In the background, QC runs again on each dataset and the “**Show validations**” list in the dataset will be refreshed.
 - If there are blockers in any dataset, the release is stopped and there will be a message to inform about that.
 - If the QCs run fine, a notification will appear saying the data has been “released successfully”. An automatic copy will be created.

You will also see a new icon “**Technical feedback**” on the Dataflow overview page from which you can download a **Confirmation receipt**. If you change the data and resubmit a new copy to the data collection, then a new confirmation receipt is available for download.

To look at your submission history, on the dropdown menu for the Reporting data, you will find **Historic releases** which opens a dialogue showing the releases metadata.

Once the data is released, it is marked as an official delivery. The delivery must be reviewed before it is technically accepted. Whilst awaiting review, the status of the delivery is “**Final feedback**”.

The final feedback is given by the client (EEA/ETC expert). If the client flagged the delivery as “**Corrections requested**” due to incompleteness, you will be contacted by the helpdesk and asked for clarifications. In such case, inconsistencies in the data will have to be corrected by reporter and submitted under a new release to the data collection as described above (Steps 1-8). When the client has “**Technically accepted**” the delivery, no further actions are necessary on your side.



2 Further steps and where to find more help

An acknowledgment of receipt is generated when an envelope has been released and completed. This confirmation document is available in the feedback section of the CDR envelope and a notification will be forwarded to the subscribers.

More help on Reportnet 3 is available at:

https://www.eionet.europa.eu/reportnet/docs/prod/reporter_howto_reportnet3.0

and:

https://www.eionet.europa.eu/reportnet/docs/prod/howto_login_reportnet3.0

In case of login or platform problems, please contact Eionet Helpdesk:

helpdesk@reportnet.europa.eu.

In case of data problems, please contact the WISE-SoE helpdesk:

wisesoe.helpdesk@eionet.europa.eu.