

Reportnet 3.0 Requester HowTo

Version 3.10 (01-08-2024)

Contents

C	Contents1							
1	Logg	n on and user profile	.4					
	1.1	How to log on to the production platform	4					
	1.2	How to log on to the test platform	4					
	1.3	How to change my profile photo	4					
	1.4	How to change my global settings	4					
	1.5	How to log off	5					
2	Data	flows	.6					
	2.1	Dataflows overview	6					
	2.1.1	How to work with the dataflows page	6					
	2.1.2	How to sort and filter my dataflow list	7					
	2.1.3	How to pin a dataflow	7					
	2.1.4	How to create a new dataflow	8					
	2.1.5	How to create a new reference dataflow	8					
	2.1.6	How to create a new business dataflow	9					
	2.1.7	How to create a new citizen science dataflow	L1					
3	Data	flow in design phase1	L3					
	3.1	Dataflow management	L3					
	3.1.1	Permissions depending on user role	L3					
	3.1.2	How to work with the dataflow page	L3					
		How to change the name, description, or associated obligation of my dataflo in design phase)						
	3.1.4	How to delete my dataflow (only in design phase)	L4					
	3.1.5	How to add a dataset schema1	15					
	3.1.6	How to rename or delete my dataset schema	۱5					
	3.1.7	How to import and export schemas	۱5					
	3.1.8	How to generate API-key	L7					
	3.1.9	How to add collaborators to support design of my dataflow	L8					
	3.1.1	0 How to add lead reporters to my dataflow1	L9					
	3.1.1	1 How to create the data collection and start reporting	20					
	3.1.1	2 How to change Public status	22					
	3.2	Dataflow help	23					
	3.2.1	How to add supporting documents for your dataflow2	23					

Reportnet 3.0 Requester HowTo



3.2.2	How to add supporting links for your dataflow	23
3.2.3	How to review the schema technical documentation	24
3.2.4	How to add descriptive text dataset schema documentation	24
3.2.5	How to check dataflow users list	24
3.3 Dat	aset schema design	25
3.3.1	How to get an overview of the design schema page	25
3.3.2	How to add tables and fields to my schema	26
3.3.3	How to change field order	27
3.3.4	How to rename a table, or change the order of tables	27
3.3.5	How to delete a table	27
3.3.6	How to delete a field	28
3.3.7	How to configure an Attachment field	28
3.3.8	How to ensure records in a table are unique	29
3.3.9	How to manually add field constraints (field QC rules)	29
3.3.10	How to link tables together and validate values in child table	30
3.3.10.1	How to establish Conditional fields in Linked tables	31
3.3.11 present i	How to validate values between linked tables so all PK values in parent n the child table	
3.3.12	How to validate values between non-linked tables, e.g. reference data .	33
3.3.13	How to add table record constraints (QC rules between fields)	35
3.3.14	How to introduce SQL sentences	36
3.3.15	How to develop SQL sentences	40
3.3.16	How to manage existing field QC rules and row constraints	41
3.3.17	How to add complex 'uniqueness constraints' to records in a table (QC	rules). 41
3.3.18	How to manage existing 'uniqueness constraints'	41
3.3.19	How to add an external integration with import and export	42
3.3.20	How to configure prefilling of previously reported data	45
3.3.21 data)	How to prefill a table with data and make it read-only (code lists or 146	reference
3.3.22	How to save a copy of the design schema	46
3.3.23	How to restore a copy of the design schema	47
3.3.24	How to test a schema design	47
3.3.25	How to Import/Export CSV to create/update/replace schemas	47
3.3.26	How to filter table data	47
3.3.27	How to configure a simple questionnaire	48
3.3.28	How to configure a Webform	49
3.3.29	How to set a dataset as Reference Dataset	50
3.3.29.1	How to create a Reference dataset on Reference dataflow	51



4	Dataflow	<i>i</i> in reporting phase	53
	4.1 Dat	aflow	53
	4.1.1	Permissions depending on user role	53
	4.1.2	How to work with the dataflow page during reporting	53
	4.1.3	How to see an overview of reporting progress	54
	4.1.4	How to add reporters after reporting has started	54
	4.1.5	How to see the list of users by country in a dataflow	55
	4.1.5.1	How to download the list of users by country in a dataflow	55
	4.1.6 Workspa	How to configure the FME process used to copy EU dataset to the Corce	
	4.1.7	How to export data to the common workspace	57
	4.1.8	How to see the latest draft data	57
	4.1.9	How to review the data released	57
	4.1.10	How to Communicate with Lead Reporter	58
	4.1.11	How to mark for automatic data+snapshots deletion	59
	4.1.12	How to consult Historic Releases	59
	4.1.13	How to close/open release process	60
	4.1.14	How to manage external integrations in reporting dataflows	62
	4.1.15	How to reproduce reporters' feedback	63
	4.1.16	How to consult the QC rules history	63
5	System N	Notifications	65
	5.1 Hov	w to launch System notifications. (Only Admin)	65



1 Loggin on and user profile

1.1 How to log on to the production platform

- 1. Go to https://reportnet.europa.eu/
- 2. A notification for allowing notifications from Reportnet is displayed. It is recommended to allow them.

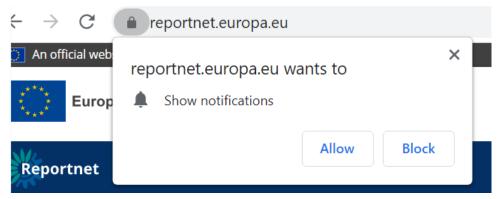


Figure 1 Allow showing notifications

- 3. Following steps are detailed in a separate HowTo.
- 4. A dialogue with cookies information appears like in other EEA pages.

1.2 How to log on to the test platform

- 1. Go to https://rn3test.eionet.europa.eu/
- 2. Log on by using your email.

1.3 How to change my profile photo

- 1. On any screen, click on the 'User profile details' button in the left context menu.
- 2. Click on the picture space to either select a default Avatar or upload your own photo.

1.4 How to change my global settings

- 1. On any screen, click on the 'User profile details' button in the left context menu.
- 2. Available global settings can be managed from this page.
 - o Pagination rows Configure the number of rows displayed in the pagination.
 - Date Format Select the desired date format to visualize.
 - o Theme Choose the theme to display in the system.
 - o Type of view Choose default layout to search obligations and dataflows.
 - Logout confirmation Configure the way to logout with or without a confirmation popup.
 - o Basemap layer Configure the default basemap layer for your map.



1.5 How to log off

- 1. On any page, click on the power button in the top right or bottom left of the screen
- 2. By default, you will be asked to confirm you wish to log off, however this can be turned off in your global settings or in the same pop-up window by clicking "Do not ask me again".



2 Dataflows

2.1 Dataflows overview

2.1.1 How to work with the dataflows page

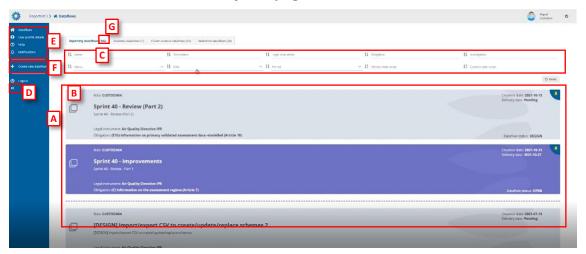


Figure 2 Dataflows page

- [A] The main part of the page comprises the list of dataflows which you have access to 'My dataflows'.
- [B] A dataflow is colour coded according to the current status grey in design and purple when reporting is open. On the dataflow card, you can see various metadata – Your role; Delivery date; Creation date; Dataflow name; Dataflow description; Associated obligation and instrument; Dataflow Status.
- [C] Filters and sort on the various metadata of the dataflows list allow you to find things easily in the dataflows list.
- [D] This button will expand the menu, to show the icon labels.
- [E] The static menu is available on every page and has four buttons. From top to button, the buttons are:
 - My dataflows will return you to this page.
 - User profile details allows you to manage some global settings and see your user profile.
 - Help Triggers a help walkthrough of the page you are currently on.
 - Notifications Provides the history of all notifications (which appear in the top right of the screen) as a list. Note: the indicator only tells that the process has started or ended and there is no progress bar to know the percentage of the process (import, validate, ...). Also, although the indicator says that a process has been sent, it doesn't mean that it has started processing. Depending on the number of other processes that are in ReporteNet3 server maybe it will be held waiting in queue until other previous processes have finished.
- [F] Below the line is the context menu. The context menu changes on each screen. On this screen, you can:
 - o Create a new dataflow.
- [G] Amount of this kind of dataflow.



2.1.2 How to sort and filter my dataflow list

- 1. The dataflow list is by default ordered first by status (design dataflows at the top) and secondly by delivery date (descending).
- 2. Each of the metadata fields on the dataflows (name, description, legal instrument, obligation, id obligation, status, role, pinned, delivery date range, creation date range (only available for custodians)) can be filtered or sorted on using the filter bar at the top of the dataflows list. The filters are applied on entering.
- 3. Combinations of more than one filter can be used.
- 4. The button on the right 'Reset' will put the list back to its default state.

2.1.3 How to pin a dataflow

- 1. There is a pin icon in the top right of each dataflow card.
- 2. When clicking on pin, there is a notification message. The dataflow displays a pin icon in the right side and it goes to top of the list.
- 3. When I have others already pinned, it keeps the same order criteria than when unpinned.
- 4. When I unpin any, there is a notification message. The dataflow turns unpinned and come back to dataflow list following proper order criteria.

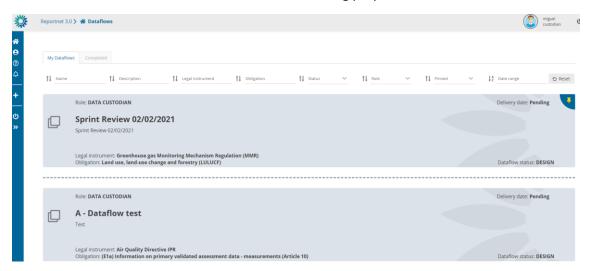


Figure 3 Pin a dataflow



2.1.4 How to create a new dataflow

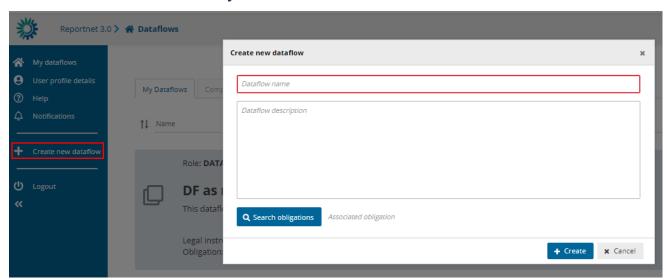


Figure 4 Create new dataflow

- 1. Optional: Expand the left panel by clicking on the double arrow at bottom left.
- 2. Click on 'Create new dataflow' in the left menu.
- 3. In the next dialogue window, provide your new dataflow some metadata 'Dataflow name' and 'Dataflow description'. The name of the dataflow has to be unique across all dataflows and a notification error will pop up if the dataflow name already exists in the system. In this case, please choose another name for your dataflow.
- 4. Associate the dataflow to a reporting obligation in Reporting Obligations Database (ROD). Click on the 'Search obligations' button and you will be taken to a new window. You are now looking at all the obligations stored in the ROD. To find the right obligation, you can either;
 - i. use the free text search field in the top left, or
 - ii. use the dropdowns to filter the list based on different metadata. To apply your filter, you need to press 'Apply filters' button on the right, and you also need to press this button after you press 'reset'.
 - iii. Once you have found your obligation, select it and press 'OK' and you will be taken back to the previous window.
- 5. Click on 'Create'.
- 6. You will now see your dataflow at the top of the list with a status of 'Design' Delivery date 'Pending' and associated with a reporting obligation.

2.1.5 How to create a new reference dataflow

A reference dataflow is a dataflow without ROD obligation (only name and description) with design schemas but without lead reporters. The reference dataset will be like DC, only read-only. Also, reference dataflows will have the information about the dataflows that are using it as reference.

All custodians/stewards/editor write could use this reference dataflow as external link.



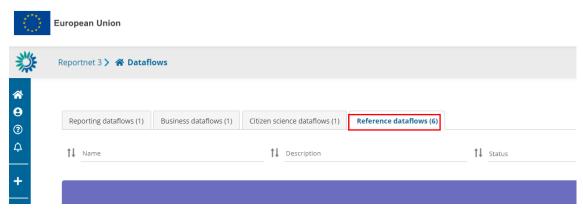


Figure 5 Reference dataflows

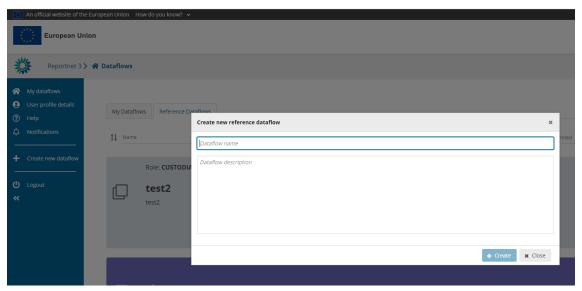


Figure 6 Create new reference dataflow

- 1. Optional: Expand the left panel by clicking on the double arrow at bottom left.
- 2. Click on 'Create new dataflow' in the left menu.
- 3. In the next dialogue window, provide your new dataflow some metadata 'Dataflow name' and 'Dataflow description'. The name of the dataflow has to be unique across all dataflows and a notification error will pop up if the dataflow name already exists in the system. In this case, please choose another name for your dataflow.
- 4. Click on 'Create'.
- 5. You will now see your dataflow at the top of the list with a status of 'Design'.

2.1.6 How to create a new business dataflow

Only a user with admin role can create this business dataflow. As a custodian or steward you could see the list of business dataflow.

To create a business dataflow you need to add a name, description, obligation, select the group of companies to user in the manage lead reporters and the FME user.



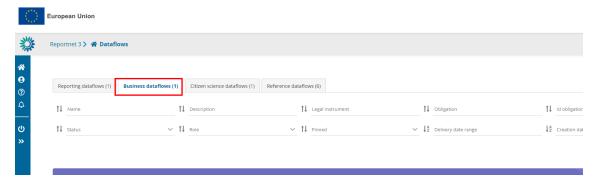


Figure 7 Business dataflows

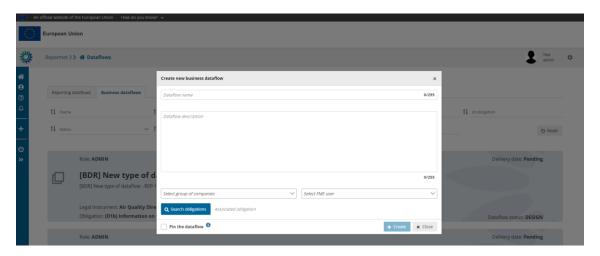


Figure 8 Create new business dataflow

- 1. Optional: Expand the left panel by clicking on the double arrow at bottom left.
- 2. Click on 'Create new dataflow' in the left menu.
- 3. In the next dialogue window, provide your new dataflow some metadata 'Dataflow name', 'Dataflow description', 'Group of companies' and 'FME user'. The name of the dataflow has to be unique across all dataflows and a notification error will pop up if the dataflow name already exists in the system. In this case, please choose another name for your dataflow.
- 4. Associate the dataflow to a reporting obligation in Reporting Obligations Database (ROD). Click on the 'Search obligations' button and you will be taken to a new window. You are now looking at all the obligations stored in the ROD. To find the right obligation, you can either;
 - i. use the free text search field in the top left, or
 - ii. use the dropdowns to filter the list based on different metadata. To apply your filter, you need to press 'Apply filters' button on the right, and you also need to press this button after you press 'reset'.
 - iii. Once you have found your obligation, select it and press 'OK' and you will be taken back to the previous window.
- 5. Click on 'Create'.
- 6. You will now see your dataflow at the top of the list with a status of 'Design'.



2.1.7 How to create a new citizen science dataflow

As a custodian or steward you could see the list of citizen science dataflows.

To create a citizen science dataflow you need to add a name, description and obligation.

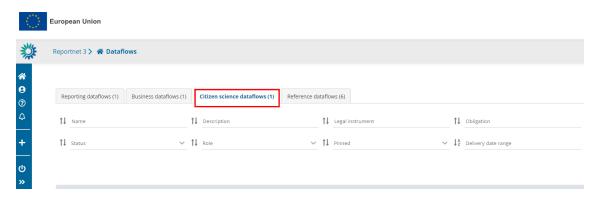


Figure 9 Citizen science dataflows

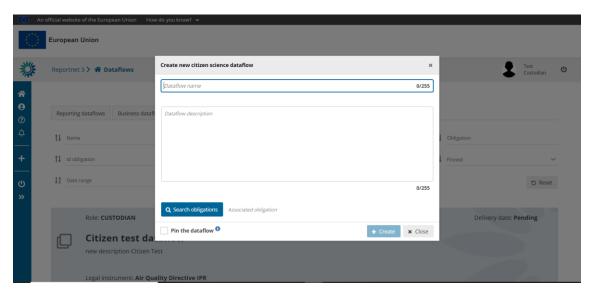


Figure 10 Create new citizen science dataflow

- 7. Optional: Expand the left panel by clicking on the double arrow at bottom left.
- 8. Click on 'Create new dataflow' in the left menu.
- 9. In the next dialogue window, provide your new dataflow some metadata 'Dataflow name' and 'Dataflow description'. The name of the dataflow has to be unique across all dataflows and a notification error will pop up if the dataflow name already exists in the system. In this case, please choose another name for your dataflow.
- 10. Associate the dataflow to a reporting obligation in Reporting Obligations Database (ROD). Click on the 'Search obligations' button and you will be taken to a new window. You are now looking at all the obligations stored in the ROD. To find the right obligation, you can either;
 - i. use the free text search field in the top left, or



- ii. use the dropdowns to filter the list based on different metadata. To apply your filter, you need to press 'Apply filters' button on the right, and you also need to press this button after you press 'reset'.
- iii. Once you have found your obligation, select it and press 'OK' and you will be taken back to the previous window.
- 11. Click on 'Create'.
- 12. You will now see your dataflow at the top of the list with a status of 'Design'.
- 13. You will be able to do everything like in a reporting dataflow but with organizations instead of countries.



3 Dataflow in design phase

3.1 Dataflow management

3.1.1 Permissions depending on user role

Different permission depending on role during dataflow in design phase:

- Custodian Write permission
- Steward Write permission
- Editor write Write permission
- Editor read read-only permission.

3.1.2 How to work with the dataflow page

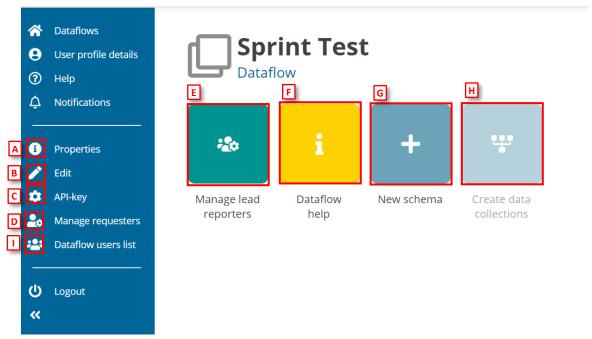


Figure 11 Dataflow page - design phase

- [A] Properties, the icon marked with 'i', displays the information regarding the dataflow, reporting obligation and legal instrument (extracted from ROD).
- [B] Edit, the pencil icon, enables to edit the name, description or associated obligation of the dataflow as well as to delete it (explained in 3.1.3).
- [C] API-key, the cog button, displays the API key and other parameters for accessing Reportnet3 programmatically (explained in 3.1.8).
- [D] Manage requesters button displays a dialogue to manage (add) other users to collaborate in the dataflow design.
- [E] Manage lead reporters button displays a dialogue to manage (add) lead reporters to the dataflow (explained in 3.1.10).
- [F] Dataflow help for accessing to the dataflow help page, in here you will find three tabs showing documents, links and technical overview of the reporting schema (explained in 3.2).
- [G] By clicking on 'New schema', you can create a new dataset schema or clone and existing one (explained in 3.3).



- [H] The 'Create data collections' button published the dataflow out to the reporters. It is enabled when there is a schema, and a reporter has been added (explained in 3.1.10).
- [I] Dataflow users list button displays a dialogue with the users assigned to this dataflow (explained in 3.2.5).

For an admin role we have a button 'Datasets info' and EU) where we can see the list of all datasets (design, reporting, reference, test, DC and EU) with the name and the ID. It is possible to filter the list by name, type and country/organization/company

3.1.3 How to change the name, description, or associated obligation of my dataflow (only in design phase)

- 1. Go to the dataflow page.
- 2. Click on 'Edit' button in the left context menu.
- 3. In the next 'Update dataflow' dialogue window you can edit the name or description.
 - i. On business dataflows, if you have an admin role, you can edit name, description, group of companies, FME user and obligation.
 - ii. On business dataflows, if you have a custodian/steward with permissions assigned for this kind of dataflow, you can edit name, description and obligation.
- 4. Click on the 'Search' button and you will be taken to a new window where you can select a new obligation and press 'OK' to return to the 'Update dataflow' window.
- 5. Click 'Save' to update the dataflow and return to the dataflow page.

3.1.4 How to delete my dataflow (only in design phase)

- 1. Go to the dataflow page.
- 2. Click on 'Edit' button in the left context menu.
- 3. In the next 'Update dataflow' dialogue window click on the 'Delete this dataflow' button.
- 4. Follow the instructions in the dialogue window to delete the dataflow.



3.1.5 How to add a dataset schema



Figure 12 Add dataset schema

- 1. Go to the dataflow page.
- 2. Click on the 'New item' button and either select 'New empty dataset schema' or 'clone all schemas from dataflow'.
- 3. [A] For new empty schema, in the dialogue give your dataset schema a name.
- 4. Click on 'Create'.
- 5. [B] For cloning an existing dataflows schema, in the dialogue select the dataflow you wish to copy the schema from.
- 6. Click on 'Close selected dataflow'.
- 7. After cloning, you can rename your schema.
- 8. [C] For importing schema, you will need to import a zip file and upload it (explained in section 3.1.7).

3.1.6 How to rename or delete my dataset schema

- 1. Go to the dataflow page.
- 2. Click on the down arrow on the design schema icon to bring up a small menu.
- 3. Click on 'rename' and give your schema new name OR click on 'delete' to remove it.

3.1.7 How to import and export schemas

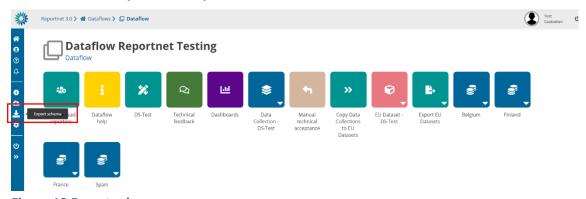


Figure 13 Export schema



In order to export a schema from one dataflow with complete information (all datasets, tables, fields, webforms, QCs, uniques, external integrations...) you have to click on button "Export schema" and a file will be generated.

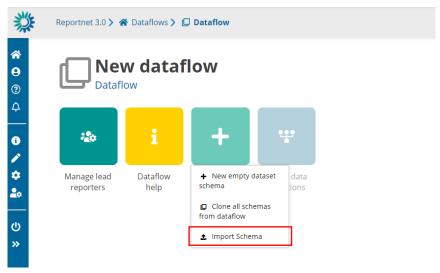


Figure 14 Import schema



Figure 15 Generated schema

If you want to import a schema from one dataflow with complete information (all datasets, tables, fields, webforms, QCs, uniques, external integrations...) you have to click on "New schema" and click the option "Import Schema" where you can upload a file. A new schema will be generated based on the file uploaded. Schema name can be changed.



3.1.8 How to generate API-key

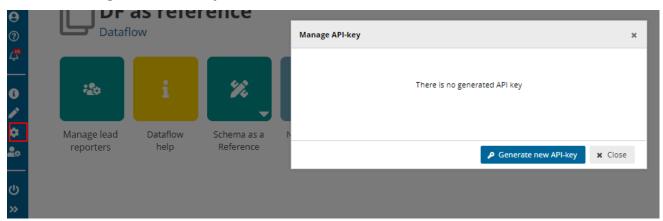


Figure 16 Manage API-key

- 1. Go to the dataflow page.
- 2. There will not be API generated if it is the first time for the user.
- 3. Click on 'Generate new API-key'.

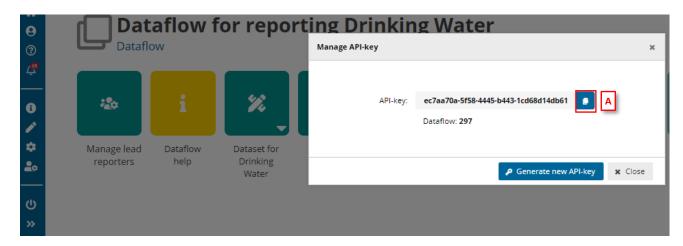


Figure 17 Generate API-key

- 4. Once the API-key is generated, it can be copied on clipboard using [A].
- 5. Different API-keys will be generated every time user clicks on 'Generate new API-key'.
- 6. API-key could be used as explained in 3.3.19.



3.1.9 How to add collaborators to support design of my dataflow

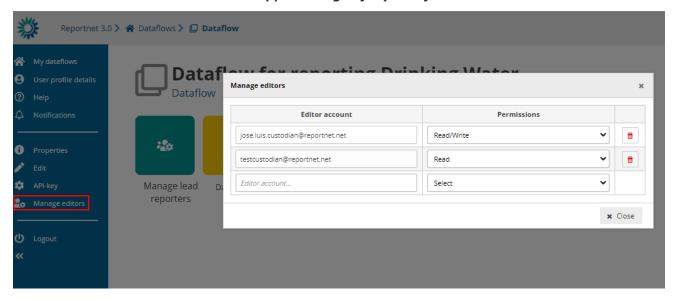


Figure 18 Manage editors

- 1. Go to the dataflow page.
- 2. Click on the double arrow at bottom left to expand the left menu, and click on the button 'Manage editors'.
- 3. A pop-up will appear where you can add editors.
- 4. Add the editors accounts. Under the account field, add the registered users email address and select an editor level of 'read' or 'read-write'. Click on the dialogue away from the input fields.
 - i. If the system cannot find the email as a registered user, then a red box will appear around the email address.
 - ii. If it is accepted, then you will be able to add another editor (the account field is automatically generated after a successful entry) and so on.



Figure 19 Editor write role



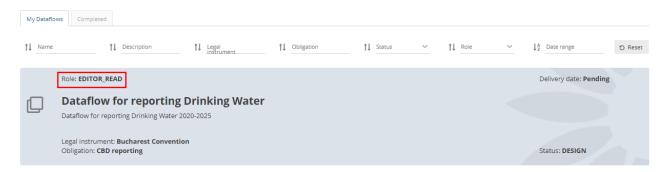


Figure 20 Editor read

- 5. Note: 'read' can only see the dataflow schema through the 'Dataflow help' -> 'Dataset schemas' page
- 6. Once you have added all your editors click 'Close'.
- 7. Note: Once the dataflow moves to Draft status, these collaborators are removed.

3.1.10 How to add lead reporters to my dataflow

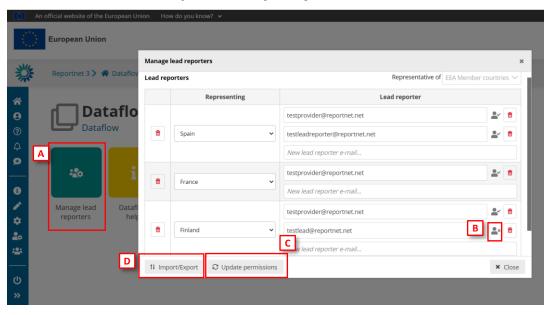


Figure 21 Manage reporters

- 1. Go to the dataflow page.
- 2. Click on the button 'Manage reporters' [A].
- 3. A pop-up will appear where you can add reporters.
- 4. On 'Representative of' drop down, choose either 'EEA Member countries' or 'All countries: EEA Member countries PLUS other countries and territories'. This changes the countries available to assign reporters to, depending on the needs of the reporting obligation.
- 5. Add the lead reporter accounts. Under the account field, add the registered users email address and select a country. Click on the dialogue away from the input fields.



- i. If the system cannot find the email as a registered user, then a red box will appear around the email address and an icon indicating the user is not valid [B]. Moreover, you have a button "Update the permissions" [C] to check if the user is or not created and has permissions.
- ii. If it is accepted, then you will be able to add another reporter (the account field is automatically generated after a successful entry) and so on.
- 6. In addition, you can load the lead reporters [D] with a CSV file.
 - i. If a country-reporter exists previously, it will be skipped.
 - ii. If there are errors on the CSV file, they will be skipped, and a CSV will be downloaded with the records with fails and a message (user or country does not exist)
- 7. You can add multiple reporters in the same country.
- 8. Moreover, you can export a CSV [D] with the current lead reporters.
- 9. You can export a template file to managing the reporters with the representatives for the group selected.
- 10. Once you have added all your reporters click 'Close'.

3.1.11 How to create the data collection and start reporting

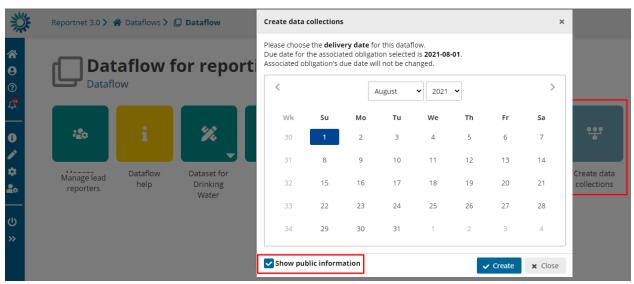


Figure 22 Create Data Collection

- 1. Go to the dataflow page.
- 2. If you have added at least one registered user as a reporter and created a dataset schema, then the 'Create data collections' button will be enabled.
- 3. Click the 'Create data collections' button. A warning appears when there are any QC disabled or SQL QCs invalid (and the count of each type).
- 4. In the data selection dialogue, you choose the closing data for the reporting. If it exists, the delivery date is automatically taken from the metadata in ROD, but you can override it here. Leave the date or select a new one.
- 5. By default, option to "Show public information" is selected, meaning that this dataflow will be on the list of reported data publicly available (View by obligation https://reportnet.europa.eu/public/countries). This attribute can be changed



- afterwards (see section 3.1.12). "BDR Dataflow" will have only the Dataflow Help part visible.
- 6. Click on 'Create'.
- 7. A confirmation dialogue appears to warn the user that edition related to design datasets (tables, fields, QC's, snapshots, etc) will be no longer allowed.
- 8. There is the possibility to add a technical acceptance step for the reporter submissions (explained in section 4.1.9).

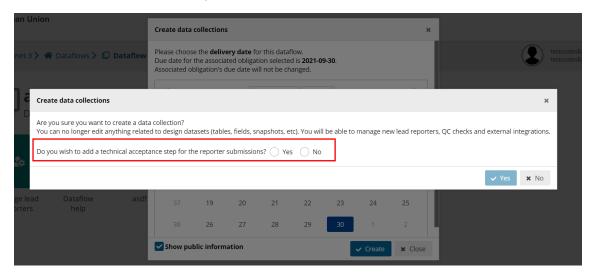


Figure 23 Technical Acceptance

- 9. You are returned to the dataflow page. The view now changes so you can see the data collection, which contains all data which has been released by the countries, a status dashboard and the individual reporter datasets, which contain the latest version of the data.
- 10. Go back to the dataflows list and you will see status and colour of dataflow has now changed.
- 11. Reporting has now been opened and the dataflows assigned to all the reporters.
- 12. Go to Section 4 'Dataflow in reporting phase' for further help.



3.1.12 How to change Public status

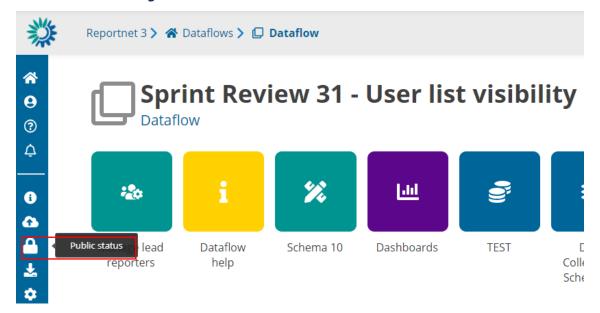


Figure 24 Public status



Figure 25 Public status confirmation

- 1. In a dataflow in open status, public attribute can be changed from "Public status" button in left bar.
 - i. This option is not available for business dataflows.



3.2 Dataflow help

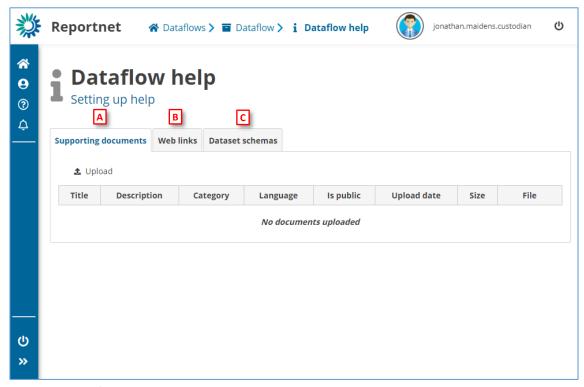


Figure 26 Dataflow help page

- [A] 'Supporting documents' Upload the documents to support the data delivery for example reporting guidance or templates.
- [B] 'Web links' Add the web links to external resources relevant to the reporting.
- [C] 'Dataset schemas' View the information on the dataset schema Extension Operations, Uniques, Validations, table and field names and descriptions.

3.2.1 How to add supporting documents for your dataflow

- 1. From the 'Dataflow' page click on 'Dataflow help'.
- 2. Select the 'Supporting documents' tab.
- 3. Click on the button 'Upload'.
- 4. In the dialogue, write a small description, select the language, and browse for the relevant document before pressing 'Upload'.
- 5. You can select if the document is public or not (public documents will be visible in the dataflow public page as extra information if the dataflow is public)

3.2.2 How to add supporting links for your dataflow

- 1. Select the 'Web links' tab.
- 2. Click on the button 'Add' in documents tab.
- 3. In the dialogue, write a small description and specify the URL before pressing 'Add'.
- 4. You can select if the Web Link is public or not (public documents will be visible in the dataflow public page as extra information if the dataflow is public)



3.2.3 How to review the schema technical documentation

- 1. Select the 'Dataset schemas' tab.
- 2. You will see the technical documentation for the reporting schema. It lists the codelists, tables, fields, uniques, QC checks including all the description text added in the design view.
- 3. If you wish to update any of the text, then go back to the schema design view to edit any description text.

3.2.4 How to add descriptive text dataset schema documentation

- 1. Go into the 'Schema design' view where you add tables and fields to your schema.
- 2. Add text in the description text boxes at the levels of dataset, table field, and QC rule as appropriate (see section 3.3.1 Figure 29).
- 3. Return to the 'Dataset schemas' tab in the 'Dataflow help' to see these descriptive texts as part of the technical documentation.

3.2.5 How to check dataflow users list



Figure 27 Dataflow users list



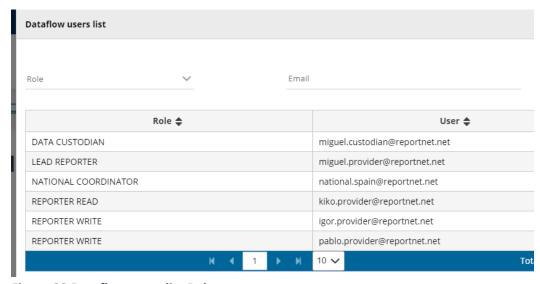


Figure 28 Dataflow users list Roles

- 1. From a dataflow inside a country selection, the user can see all users assigned to this dataflow country by selection 'Dataflow users list' in the left bar.
- 2. All roles, if applied, are displayed: Data Custodian, Lead Reporter, National Coordinator, Reported Read, Reporter Write, ...

It is important to remember that only the users that appear on the list will be able to view the country information, so other lead reporters from other countries will only be able to see their corresponding country and not the information from other member states.

A user is only allowed to add users that have the same or lower privileges while for removing users, only the ones that have lower permissions.

3.3 Dataset schema design

3.3.1 How to get an overview of the design schema page

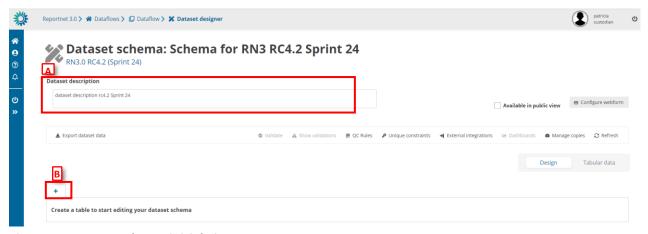


Figure 29 Dataset schema initial view



Dataset schema: Schema for RN3 RC4.2 Sprint 24 RN3.0 RC4.2 (Sprint 24) Dataset description G A valiable in public view C Table 1 Table 1 Table 1 description Read only table Field description Field type Field famme Field description Field type Field famme Field description Field type Field famme Field description Field type Field type Field type Field type Field type Field type Field famme Field description Field type Field famme Field description Field type Field type Field famme Field description Field type Field ty

Figure 30 Dataset schema after table is added

Initial view (Figure 29):

- [A] Metadata in this field will be reflected on the Dataflow help page.
- [B] Click here to add a Table by clicking the tab with a '+' icon.

After table has been added (Figure 30):

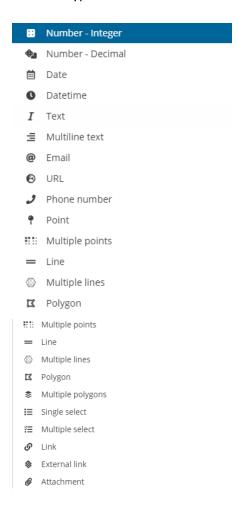
- [C] Add more tables by clicking the tab with a '+' icon. By double clicking on the table, it is possible to rename tables. Drag and drop allows you to change the order of the tables. Right clicking enables you to delete the table.
- [D] Add fields by typing in Field name and Field description (to be reflected on the Dataflow help page). You can choose the field type from the dropdown menu.
- [E] Once clicked on the Required, the reporter must enter data to that particular field.
- [F] Primary Key (PK) links the fields in the different tables together. If this PK is a text field, it may not contain commas.
- [G] Manage table and field restrictions (QC rules) from this button.
- [H] Save a copy of the design schema that you can always revert back to.
- [I] Add uniqueness constraints (QC rules) to records in a table.
- [J] Add a row constraint to the defined fields.
- [K] By switching the toggle from 'Design' to 'View data' to test a schema design.
 - Please, refer to HowTo_Reporter document for further details on features of View Data mode.
- [L] Prefill a table with data and make it read-only (code lists or reference data). Also set table as Mandatory (QC rule associated) and fix number of records to disable users the option to modify the number of records in this table.
- [M] Once clicked on Read Only, reporters can't change value of this field.
- [N] Configure Webforms is explained in a section 3.3.28.
- [O] Option that makes this specific dataset publicly available when releasing.

3.3.2 How to add tables and fields to my schema

- 1. Go to the dataset schema design page.
- 2. In the design view, add a table by clicking on the tab with the plus, give it a name. Once you have entered the name, click away from the entry filled and the table will be created.



- 3. Then add fields for that table, one by one by providing a name, description (optional) and field type. The description will be part of the documentation on Dataflow Help page, and also as a pop-up from the 'i' icon in a table column.
 - i. The field types could be:



- 4. QC rules are automatically created to validate the data to ensure it respects the field type limitations. Go to the 'QC Rules' dialog and you will see that a QC rule has been automatically added for the 'table' and 'field' you just created. Click on the edit button to the right of the rule in order to edit the error message.
- 5. Click on the tab with a plus to add further tables.

3.3.3 How to change field order

1. If you have more than one field defined, change the order of fields using the button on the very left of the field name, with three horizontal bars, to drag a field to its new desired position.

3.3.4 How to rename a table, or change the order of tables

- 1. Rename tables by double clicking on the table name, or right clicking on the table name and selecting 'Edit' from the context menu.
- 2. Use a drag and drop to change the order of tables.

3.3.5 How to delete a table

1. Right click on a table name



2. Select 'Delete' from the context menu.

3.3.6 How to delete a field

- 1. Click on the red trash-can icon to the very right if the field.
- 2. You will be prompted to confirm the deletion click 'yes' to confirm.
- 3. Note: All associated QC checks both automatic and manually added are also deleted.

3.3.7 How to configure an Attachment field

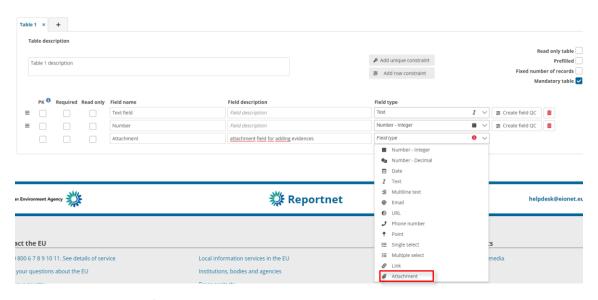


Figure 31 Attachment field

- 1. Go to the dataset schema design page.
- 2. In field type, select Attachment

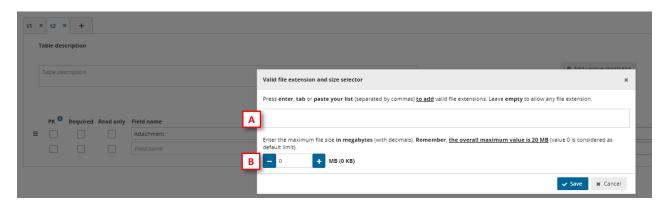


Figure 32 File extension and Size

- 3. [A] List of valid extension can be added in here separated by commas. If the user leaves empty this list, any file extension will be valid.
- 4. [B] The maximum file size in megabytes is set through this box, taking into account maximum value is 20MB.



3.3.8 How to ensure records in a table are unique

- 1. On the field which is the unique identifier for the records in the table, enable 'PK' (Primary Key) tick box to the left of the field name (If not already enabled, this will also make this field 'Required').
- 2. Go to the 'QC Rules' dialog and you will see that an additional QC rule has been automatically added with name 'Table type unique Constraint' and description 'Checks if either one field or combination of fields are unique within table'. Edit the error message to make it more meaningful.

3.3.9 How to manually add field constraints (field QC rules)

- You manually add further field constraints by clicking on the 'Create field QC' button to the right of the field definition row. Click on this to open a validation builder in a new window.
- Alternatively, open the 'QC rules' dialog and click the button 'Create field constraint' at the bottom left.
- 3. Moreover, you can clone a QC rule by clicking on the 'Duplicate' button where you will be able to prefill new QC from an existing one and you can 'Quick edit' the basic information (code, name, description, message, level error and status)



Each QC can be provided with some metadata to help the reporter understand what restrictions have been imposed on the schema (name, description). Here you also set the error message when which is triggered when the value fails the validation, and you can also set the level of validation.

- 4. Different levels of validation can be set depending on severity:
 - BLOCKER: Blocker messages indicate that the detected error will prevent data submission (data release is not possible).
 By default, the automatic QCs are created with this level of validation.
 - ERROR: Error messages indicate issues that clearly need corrective action by the data reporter.
 - WARNING: Warning messages indicate issues that may be an error. Data reporters are expected to double-check relevant records.
 - INFO: Informative message. Neutral or statistical feedback about the delivery, e.g. number of species reported.
- 5. Examples of field constraints, which are dependent upon the type of field:
 - dates must fall within a certain range;
 - text which is limited to a certain number of characters:
 - a number field with thresholds the values must fall between
 - for a text field, use the string and MATCH operator to validate patterns using RegEx, e.g. an ID of two digits and four numbers: [A-Z]{2}\d{6}
 - QC based on SQL sentences (see section 3.3.14).
- 6. If you have more than one expression which are related, then you can add them with the 'add new rule' button. You need to establish the relationships between the rules AND or OR. For example, a number value must be greater than 0 AND less than 10.



- 7. It is also possible to create expression groups and establish relations between groups and individual rules, or groups and groups. To enable a group tick at least two tick boxes on the left for the rules you wish to group. As soon as more than one is ticked, then a 'Group' button appears. Press this to create the Group. Then you establish the relation between this group and other rules or groups using AND or OR dropdown.
- 8. Once you have finished then press the 'Create' button.
- 9. After rule creation, the rules engine will validate the rule to ensure it is logically valid. If there is an issue, you will see a red notification window appearing in the top right. The user has also the option to validate QCs on demand (revalidates all the QCs, required for SQL rules when table or field names has been changed).
- 10. To review a created rule, click on the 'QC rules' button in the table menu bar. A dialog will appear listing all the rules both those created automatically as well as manually.
- 11. It is possible to edit the created rule by clicking on the edit button on the right of the rules in the 'Actions' column.
- 12. It is possible to download the list of QCs in a CSV file by clicking on the 'Download QCs' button.

3.3.10 How to link tables together and validate values in child table

You can link tables together with type 'Link' (linked with table defined on the current dataflow) or 'External Link' (where you will be able to create an external link to a reference dataset inside a reference dataflow).

- 1. On the parent table enable 'Primary Key PK' tick box to the left of the field name, for the field which is going to be the link between tables. (If not already enabled, this will also make this field 'Required').
- 2. On the second (child) table, create a field with the same name, and for the field type select 'Link'.
- 3. In case of type 'Link', in the dialogue window, select the field in the first table, which you made the 'PK' in the first step, and optionally the linked table label field and conditional fields, and press 'Save'.

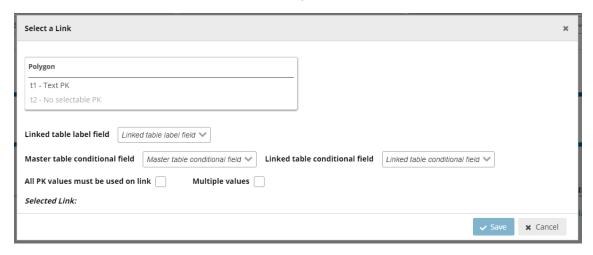


Figure 33 Select a Link



4. In case of type 'External Link', in the dialogue window, you first must select the 'reference dataflow' [A] and then select the schema and table to use the link. Moreover, select the field in the first table, which is the 'PK', and optionally the linked table label field and conditional fields, and press 'Save'.

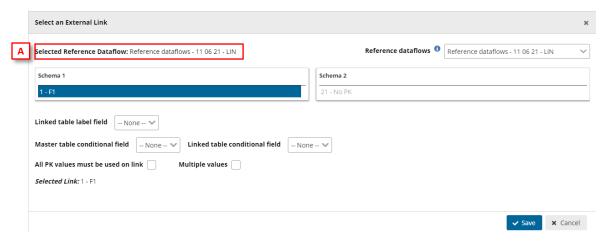


Figure 34 Select a Link

- 5. In the second table, the only allowable values are those which have been entered as ID on the first table (table which PK is enabled). A relation has been established between the two tables and all fields involved with the conditional data. If you import data to the second table and the ID value is not existing in table 1, then you will receive an error message.
- 6. Go to the 'QC Rules' dialog and you will see that an additional QC rule has been automatically added with name 'Field type LINK' and description 'Checks if the record based on criteria is valid LINK'. Edit the error message to make it more meaningful.
- 7. Note: Fields type *Point*, *Line*, *Polygon*, *Multiple points*, *Multiple lines and Multiple polygons* can't be set as Primary Key (PK).

3.3.10.1 How to establish Conditional fields in Linked tables.

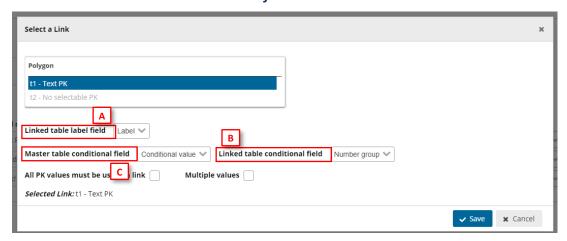


Figure 35 Example Link

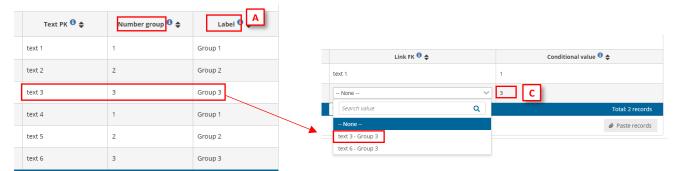


Figure 36 Example data Table 1 PK

Figure 37 Example data Table 2 FK

- 1. [A] Set a label for the data (only visible when combo is expanded, once the data is chosen, the label will not appear).
- 2. [B] Set the data linked with primary key.
- 3. [C] Set the data which will conditionate the possible values for the linked field.

Therefore, when in Table 2 we set a value in [C], the *Link FK* field will only display *Text PK* possible field values depending on conditional values on [B].

Note: These fields are optional when linking fields between tables.

3.3.11 How to validate values between linked tables so all PK values in parent table are present in the child table

- To create a new relation between tables, follow steps in the previous section up to step 3 to link two tables together, but do not save from the 'Select a link' dialog.
- For an existing relation between two tables, click on the button to the right of the linked field, field type which shows the established relation in the 'Select a link' dialog.
- 3. In the 'Select a link' dialog, enable 'All PK values must be used on link'.
- 4. Click 'Save'.
- 5. In the child table, the only allowable values are firstly those which have been entered as ID on the parent table (table which PK is enabled), and child table must also contain all the values which are have been entered as ID on the parent table.
- Go to the 'QC Rules' dialog and you will see that an additional QC rule has been automatically added with name 'Table Completeness' and description 'Checks if contains all the records based on set criteria'. Edit the error message to make it more meaningful.



3.3.12 How to validate values between non-linked tables, e.g. reference data

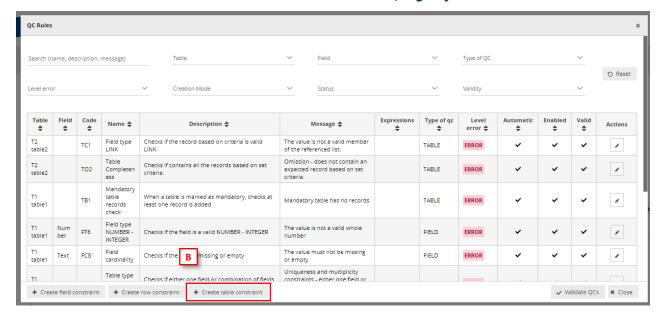


Figure 38 QC Rules

- A scenario could be that you'd want to validate the reported data against reference data e.g. historical data, to ensure, for example, the same monitoring stations were reported as previously. The reference data is available in the dataflow as a separate read-only schema but is not part of the reporting schema and therefore the tables are not linked.
- 2. Add the reference data into a table same schema or different schema in the same dataflow as the reported data.
- 3. Open the 'QC rules' dialog in your dataset schema design page.
- 4. Click on 'Create table constraint' at the bottom of the window.
- 5. Moreover, you can clone a QC rule by clicking on the 'Duplicate' button where you will be able to prefill new QC from an existing one and you can 'Quick edit' the basic information (code, name, description, message, level error and status)



- 6. In the dialog 'Info' tab, select the table data which you wish to validate (the reported data).
- 7. Add the additional metadata information.
- 8. In the dialog 'Table relations' tab, select between the target dataset schema and target table which you are comparing the reported data with (the reference data) or adding a SQL sentence.

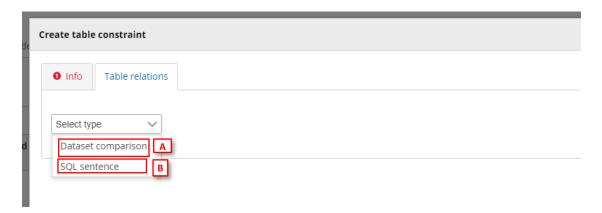


Figure 39 Table SQL sentence

- 9. [A] For Dataset Comparison, the field dropdowns will now be enabled and you can specify the fields in each table which you are checking between. For example, MonitoringStationID. The field name does not have to be the same in each table.
- 10. [Optional] It is possible to compare the two tables with a combination of fields. To do this click on the 'Add new relation' button and specify which other fields should be part of this validation.
- 11. [B] For SQL sentence, the sentences should look like the examples displayed in the inline SQL Help. The left table helps the user to provide the exact name of the item (see section 3.3.14).

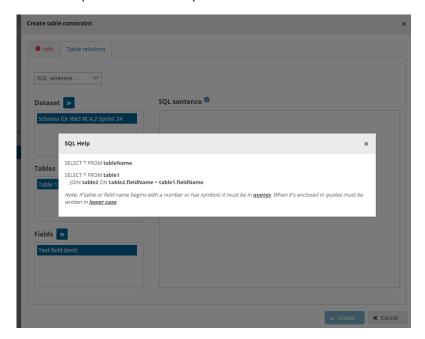


Figure 40 SQL Inline Help

- 12. Click 'Create'.
- 13. A validation rule has now been created which will be triggered if any record is missing in the reported data table data which are present in the target (reference data) table, based on the specified field. Note: if there are additional records in the reported data table, no error will be triggered.



- 14. After rule creation, the rules engine will validate the rule to ensure it is logically valid. If there is an issue, you will see a red notification window appearing in the top right. The user has also the option to validate QCs on demand (revalidates all the QCs, required for SQL rules when table or field names has been changed).
- 15. In the 'QC Rules' dialog and you will see that an additional QC rule has been added with name, description and error message you entered.
- 16. [Optional] It is also possible to make the check to trigger an error if there are additional rows found in the reported data table, which are not found in the reference data. From the 'QC rules' dialog, open the QC rule and go to the 'Table relations' tab. Enable the tick box marked 'All PK values must be used on link'.
- 17. The rule has now been updated and the referenced table will have errors if any record, based on the specified field, is found in the reported data table which is not found in the referenced data table.

3.3.13 How to add table record constraints (QC rules between fields)

- 1. To add a row constraint you need to have first defined fields.
- 2. Click on the 'Add row constraint' button in the table design area or open the 'QC rules' dialog and click the same named button at the bottom left.
- 3. Moreover, you can clone a QC rule by clicking on the 'Duplicate' button where you will be able to prefill new QC from an existing one and you can 'Quick edit' the basic information (code, name, description, message, level error and status).



- 4. In the popup 'Info' tab, first select the table that the row constraint will be applied to. Also in this tab, provide metadata to help the reporter understand what restrictions have been imposed on the schema (name, description, error message). Here you set the error message which is triggered when the value fails the validation, and you can also set the level of validation.
- 5. Different levels of validation can be set depending on severity:
 - i. **BLOCKER**: Blocker messages indicate that the detected error will prevent data submission (data release is not possible).
 - ii. ERROR: Error messages indicate issues that clearly need corrective action by the data reporter.
 - iii. WARNING: Warning messages indicate issues that may be an error. Data reporters are expected to double-check relevant records.
 - iv. INFO: Informative message. Neutral or statistical feedback about the delivery, e.g. number of species reported.
- 6. In the popup 'Expression' tab, the constraint is applied. The first action is to define the type of row restriction:
 - i. 'Field comparison' allows you to compare one field with another or with a fixed value, for example the sampling data field must have the same year as the Year field.
 - ii. 'If-then clause' allows you to define business relations between records, for example if field A has a value of 'Yes' then text field B must be filled in, i.e. have a string length greater than 0.
 - iii. 'SQL sentence' (see section 3.3.14)



- 7. If you have more than one expression, then you can add additional ones with the 'add new rule' button. You need to establish the relationships between the rules AND or OR.
- 8. It is also possible to create expression groups and establish relations between groups and individual rules, or groups and groups. To enable a group tick at least two tick boxes on the left for the rules you wish to group. As soon as more than one is ticked, then a 'Group' button appears. Press this to create the Group. You then establish the relation between this group and other rules or groups using AND or OR dropdown.
- 9. Once you have finished then press the 'Create' button.
- 10. After rule creation, the rules engine will validate the rule to ensure it is logically valid. If there is an issue, you will see a red notification window appearing in the top right. The user has also the option to validate QCs on demand (revalidates all the QCs, required for SQL rules when table or field names has been changed).
- 11. To review a created rule, click on the 'QC rules' button in the table menu bar. A dialog will appear listing all the rules both those created automatically as well as manually. If the rules validator is still running, you will see a spinning circle in the 'valid' column, otherwise a tick if it is OK.
- 12. It is possible to edit the created rule by clicking on the edit button on the right of the rules in the Actions column.

3.3.14 How to introduce SQL sentences

There are different ways to introduce SQL sentences. These sentences are executed exactly as it is introduced in the system in a raw SQL language.

i. Semi-manually

Figure 41 Edit field constraint

× Cancel



- a. We can introduce the schema, table and field names in a semi-manual way by selecting the schema and the tables or field we want to declare in the sentence [A].
- b. Field types are displayed between brackets (*Text* in the example) to have the information of them when we are writing the SQL sentences [A-B].
- c. Detailed help info to create the SQL rules [C]
- d.The SQL sentence will have this text replaced by the country code (refers to {%R3_COUNTRY_CODE%}) [D]
- e. We can evaluate the SQL sentence [E]. This traffic light indicates the complexity of the expression of the SQL sentence. You can see it too on the list of QC rules in the column 'SQL evaluation'.



Figure 42 List of QC rules in the column SQL evaluation

f. We can run the SQL sentence by clicking the button 'Run SQL' [F] and it will show a dialog with the results of this SQL sentence.

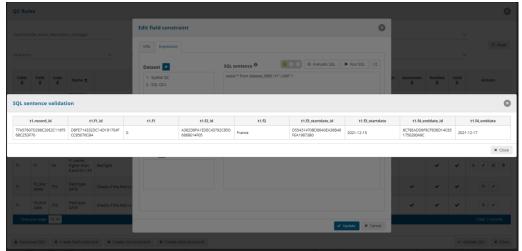


Figure 43 Result of running a SQL

Note: if you add a wrong SQL sentence and you click on 'Evaluate SQL' or 'Run SQL', you will see highlighted in red the area of the SQL sentence and below of this area, we can see the error.



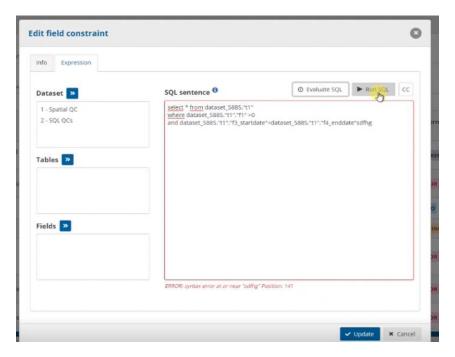


Figure 44 Error in SQL sentence after evaluating or running a SQL

g. We can include SQL fields in the message setting the text between {% %}. This keyword is replaced in the SQL result for this field. We can use an Alias or add more fields in the message

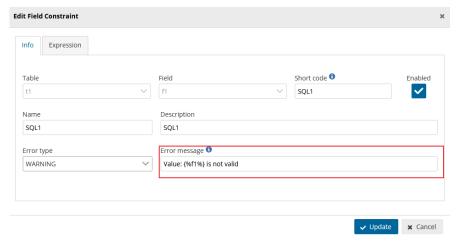


Figure 45 Include SQL fields in error message



Figure 46 Field f1 from the table t1





Figure 47 Message prompt from QC

ii. Manually

We also have the possibility to introduce the sentences in a completely manual way.

a. In the info button we can display the SQL Help dialog that show us the way we have to introduce the sentences and names of each element (SQL Help will display differently if we are creating a field, record or table constraint):

Table SQL sentences:

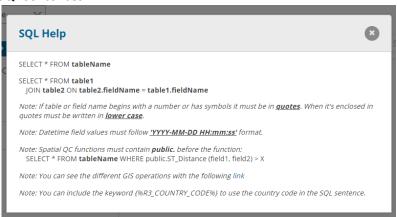


Figure 48 Table SQL sentence

Record SQL sentences:

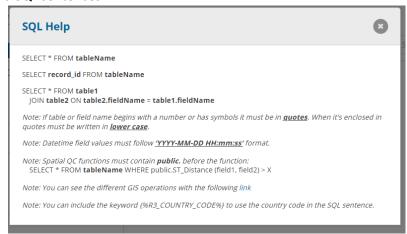


Figure 49 Record SQL sentence



Field SQL sentences:



Figure 50 Field SQL sentence

The main difference between them it's in the field and record SQL sentences:

- If it's a record it needs record id in the select.
- If it's a field it needs record_id, field_id and the field name.

The note in the bottom part it's for all the SQL QCs: If a table or field name begins with a number or has symbols in the name it must be written in quotes. When a name it's enclosed in quote it must be written in lower case.

For POSTGIS spatial functions which are exposed to the SQL interface – the revenant ones are here: https://postgis.net/docs/reference.html#Spatial Relationships

3.3.15 How to develop SQL sentences

Differences between MSSQL and PostGresSQL:

SQL Server	PostgreSQL
Select * From data.BWD_SeasonalPeriod Where ([startDate] = '9999-12-31' OR [startDate] > GETDATE())	Select * From data.BWD_SeasonalPeriod Where ([startDate] = '9999-12-31' OR [startDate] > NOW())
select a.* from SeasonalPeriod a left join (SELECT bathingWaterIdentifier, season, startDate, endDate FROM SeasonalPeriod WHERE periodType = 'bathingSeason' and year(startDate) != season and datediff(MONTH,startDate,endDate) = 11) b	select a.* from SeasonalPeriod a left join (SELECT record_id,bathingWaterIdentifier, season, startDate, endDate FROM SeasonalPeriod WHERE periodType = 'bathingSeason' and date_part('year', startDate) != season and (DATE_PART('month', endDate) - DATE_PART('month', startDate)) = 11) b
on a.bathingWaterIdentifier = b.bathingWaterIdentifier and a.season = b.season where a.startDate != '9999-12-31' AND YEAR(a.startDate) != a.season AND b.bathingWaterIdentifier is null	on a.bathingWaterIdentifier = b.bathingWaterIdentifier and a.season = b.season where a.startDate != '9999-12-31' AND date_part('year', a.startDate) != a.season AND b.bathingWaterIdentifier is null

Figure 51 Table of differences between SQL Server and PostgreSQL



3.3.16 How to manage existing field QC rules and row constraints

- 1. To review a created rule, click on the 'QC rules' button in the table menu bar. A dialog will appear listing all the rules both those created automatically as well as manually.
- 2. Use the filters to find a rule.
- 3. It is possible to edit the created rule by clicking on the edit button on the right of the rules in the Actions column.
- 4. It is possible to edit the metadata and error message for automatically created rules.
- 5. After rule update, the rules engine will validate the rule to ensure it is logically valid. If there is an issue, you will see a red notification window appearing in the top right. The user has also the option to validate QCs on demand (revalidates all the QCs, required for SQL rules when table or field names has been changed).
- 6. If validating an SQL sentence there is an error, a message will be shown on the Valid column to know more about the failure.

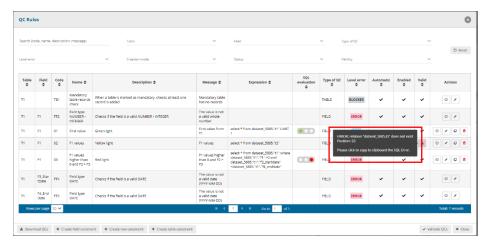


Figure 52 Error message in Valid column after SQL validation

3.3.17 How to add complex 'uniqueness constraints' to records in a table (QC rules)

- 1. Click on the 'Add unique constraint' button.
- 2. In the dialogue select from the left side which table you wish to set the unique constraints on.
- 3. On the right side of the dialogue select the field or combination of fields, which you wish to enforce as unique (NB: the primary key for a table will already have a QC rule to ensure it is unique).
- 4. Press 'Close'.

3.3.18 How to manage existing 'uniqueness constraints'

- 1. To review the unique constraints, click on the 'Unique constraints' table menu bar.
- 2. In this dialogue, you can review edit and delete the constraints which have been set up.



3.3.19 How to add an external integration with import and export

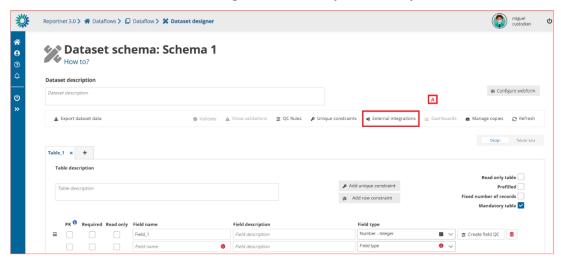


Figure 53 External Integrations

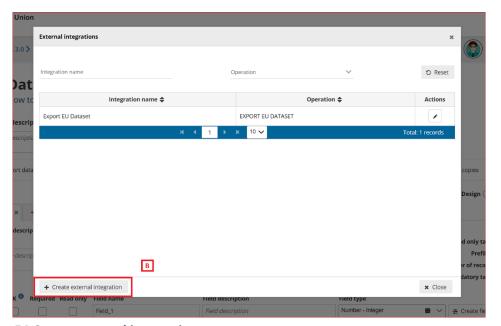


Figure 54 Create external integration

- [A] The 'External integrations' button pops up a dialog with a list of the External integrations set up in the system. An 'Export EU Dataset' integration is created by default on each dataflow creation.
- [B] You can add a new integration by clicking 'Create external integration' where you will be able to set the type of external integration.

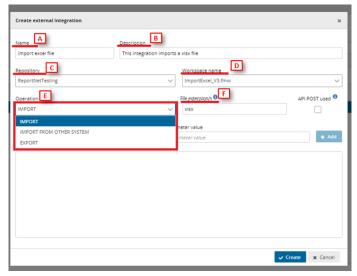


Figure 55 External integration import and export

- o [A] Input the external integration name.
- o [B] Input the external integration description.
- o [C] Choose the FME repository from the dropdown.
- [D] Select the proper FME process.
- [E] Select the Operation:

Dataset schema: Schema 1

- For 'Import' and 'Export' operations it's mandatory to input the
 [F] file extension. You can include more than one extension separated by commas.
- External integrations for imports could have the same extension more than once.
- o Finally click on 'Create' to create the external integration.

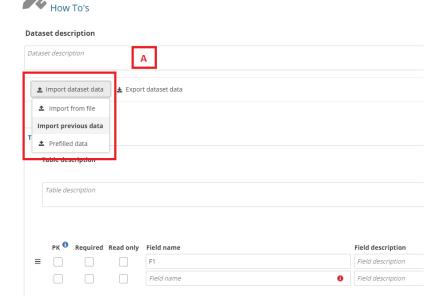


Figure 56 Import dataset data dropdown



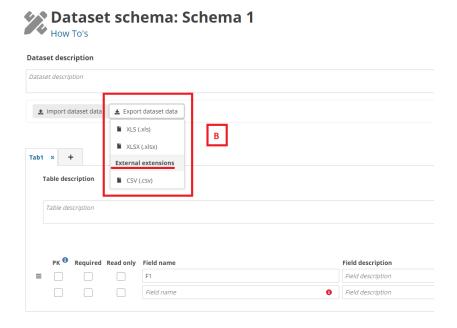


Figure 57 Export dataset data dropdown

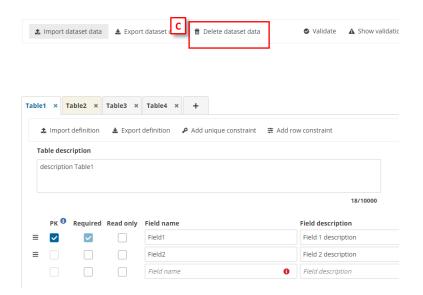


Figure 58 Delete dataset data

- [A] The external integrations import type can be executed by clicking the 'Import dataset data' dropdown. 'Import from file' refers to the import set up with file extension and the list below 'Import previous data' are the 'Import from other system' imports.
- [B] The export extensions export type is executed by clicking the 'Export dataset data' and then selecting the options below 'External extensions'.
- [C] The delete dataset data is executed by clicking the 'Delete dataset data'. When you click, a modal appears with a check to select if prefilled tables must be deleted or not. If you check the 'Delete prefilled tables data', all tables must be deleted. If you uncheck the 'Delete prefilled tables data' (default value), all tables but prefilled tables must be deleted.



3.3.20 How to configure prefilling of previously reported data

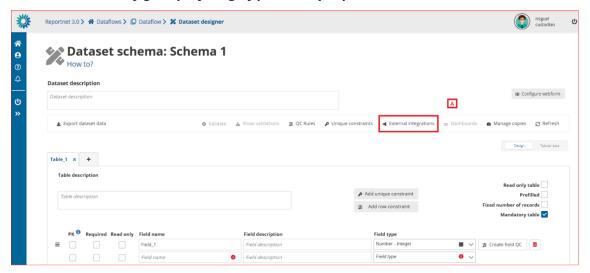


Figure 59 External Integration

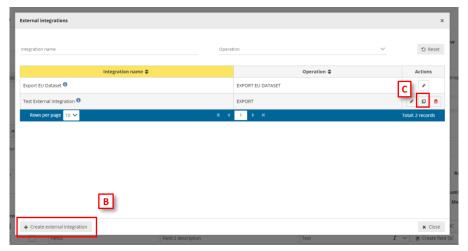


Figure 60 Create External Integration

- [A] The 'External integrations' button pops up a dialog with a list of the External integrations set up in the system. An 'Export EU Dataset' integration is created by default on each dataflow creation.
- [B] You can add a new integration by clicking 'Create external integration' where you will be able to set the type of external integration
- [C] You can clone a new integration by clicking on the clone button [C] where you will be able to prefill new external integration from an existing one.

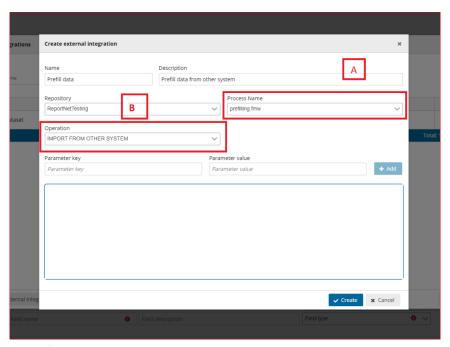


Figure 61 Import from other system

- [A] Select the proper process that will connect with the proper database or file (configured in the FME process).
- [B] Select 'Import from other system'.

3.3.21 How to prefill a table with data and make it read-only (code lists or reference data)

- 1. To the right, in the table design mode, enable the tick box 'Read only table'.
- 2. This will automatically enable 'Prefilled'.
- 3. Toggle the 'View data' so you can see the dataset view.
- 4. Add rows, paste records or import data as you prefer into the table.
- 5. When the data collection is created this table will be visible to the user readonly and populated with the prefilled data.
- 6. It is possible to link fields on other tables to this prefilled data, in order to create code lists or reference data.

3.3.22 How to save a copy of the design schema

- 1. On the table menu bar, click on 'Manage copies'.
- 2. In the dialogue, give your copy a description in the text field at the top and press the '+' button.
- 3. Click 'Yes' to confirm in the popup.
- 4. The copy will be of both the design and any data added to tables.
- 5. The copy will now be listed on the right.
- 6. Close the right panel and continue working.



3.3.23 How to restore a copy of the design schema

- 1. On the table menu bar, click on 'Manage copies'.
- 2. In the list, press the 'Restore copy' button next to the copy you wish to revert to (WARNING: the current design will be overwritten consider taking a copy of the current schema before reverting to an older one).
- 3. Confirm in the dialogue you wish to continue.
- 4. Wait for the green notification to appear in the top right, confirming the copy has been successfully restored.
- 5. Close the right panel.
- 6. Click on the 'Refresh' button.

3.3.24 How to test a schema design

- 1. To the right of the table design view toggle from 'Design' to 'View data'.
- 2. You will now see the data entry view of your schema.
- 3. Add data through add records, paste records or import.
- 4. Click 'Validate' in the table menu bar to run the quality control checks.

3.3.25 How to Import/Export CSV to create/update/replace schemas

- 1. To import the definition in a table, on the table menu, click on 'Import definition' [A], then a dialog to select a CSV file will be appear and you can check if you want to replace or not the data. The Field name, PK, Required, ReadOnly, Field description, Field type, Extra information will be informed on this file. Then the fields of the tables will be created.
- 2. To export the definition in a table, click on 'Export definition' [B], then a CSV file is downloaded with the table definition.

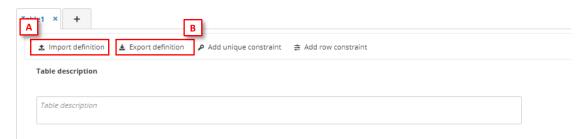


Figure 62 Import or export definition of tables

3.3.26 How to filter table data

To filter table data, insert in an input text in the table bar 'Filter value' [A] the text you want to search in all fields.

The geometer fields will be omitted, and the filter is case sensitive.

Figure 63 Filter table data

3.3.27 How to configure a simple questionnaire

By configuring fields in a specific way, it is possible to create a simple questionnaire:

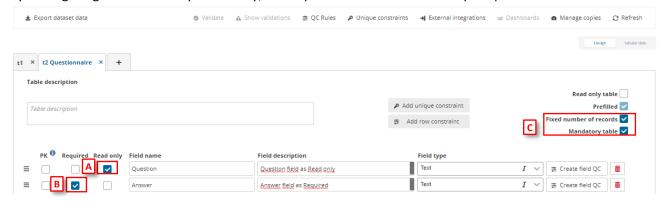


Figure 64 Questionnaire fields

- 1. [A] Question field configured as Text type and Read Only the Reporter won't be able to change it.
- 2. [B] Answer field configured as Text type and Required to ensure all the questions are answered.
- 3. [C] Prefilled and Fixed number of records set when dataflow is moved to reporting phase, Questions added are maintained and no more rows can be inserted.

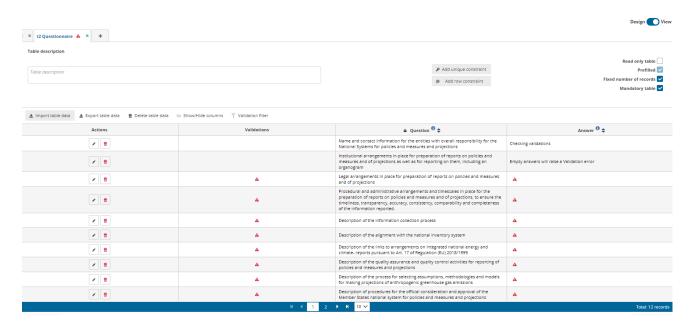


Figure 65 Questionnaire view mode



3.3.28 How to configure a Webform

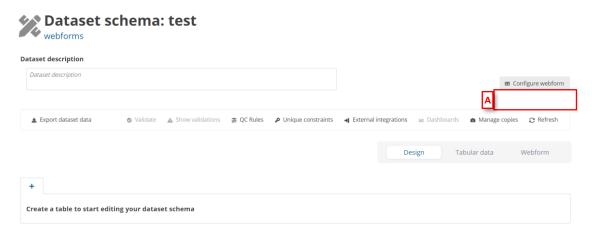


Figure 66 Configure Webform

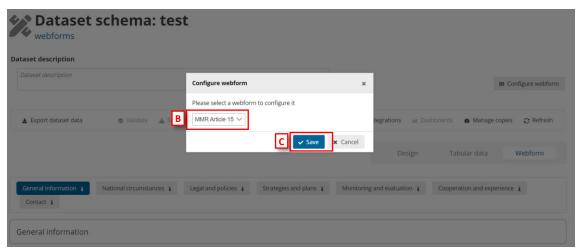


Figure 67 Select Webform

- [A] The 'Configure webform' button pops up a new dialogue with a dropdown [B]: first option (default) 'No webform' and the rest options will be the specific webforms developed in the system.
- [C] You can add a new webform by clicking 'Save' when you have selected the webform needed.

Configure webforms for:

- National climate change adaptation planning and strategies
- National greenhouse gas policies and measures

are explained in a separate HowTo document.



3.3.29 How to set a dataset as Reference Dataset

The custodian/steward has the option to set the design dataset as Reference
 Dataset.

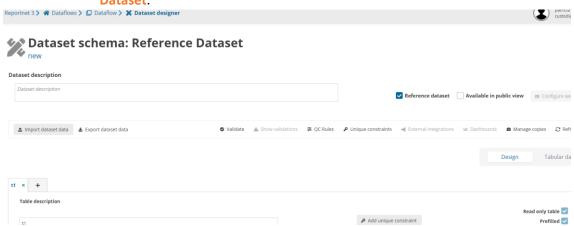


Figure 68 Reference Dataset

- 2. All tables in this dataset are set as prefilled and read-only.
- 3. No possibility to configure external integrations or webforms.
- 4. This reference dataset is unique for the dataflow.
- 5. All reporting datasets, test datasets, DC datasets and EU datasets link the same reference dataset (not needed to copy for each country and copy in release actions).
- 6. Reference datasets could be updateable or not if the dataset is marked as locked or unlocked by clicking on a button in the left bar [A] and marked as open for changes or not [B]
 - i. Option not available on reference dataflows.

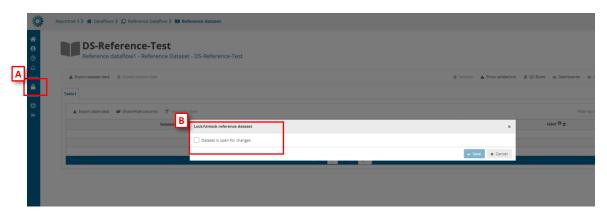


Figure 69 Reference schema file

7. From public page, reference dataset schema files can be downloaded.

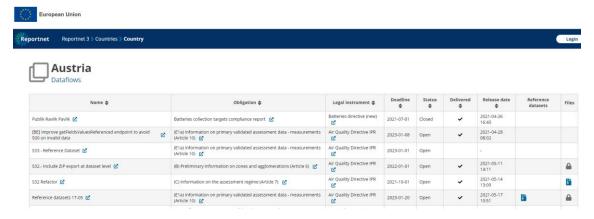


Figure 70 Reference schema file

3.3.29.1 How to create a Reference dataset on Reference dataflow

Inside reference dataflow you can create a new schema. By default, this new schema will be marked as reference dataset [A].

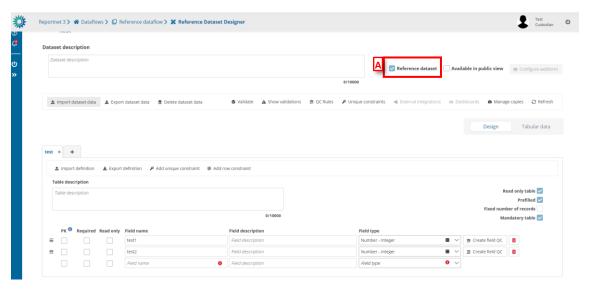


Figure 71 Reference Dataset

1. If you have added at least one dataset and created a dataset schema, then the 'Create reference datasets' [A] button will be enabled.



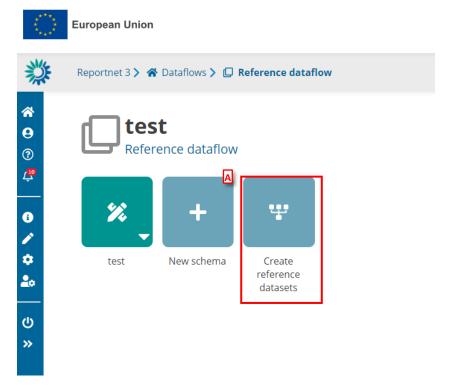


Figure 72 Create reference datasets

2. Click the 'Create reference datasets' [A] button. If all tables in all schemas have PKs the process starts. But if there are tables without PK, a modal [B] appears to have the option to continue or cancel the process.

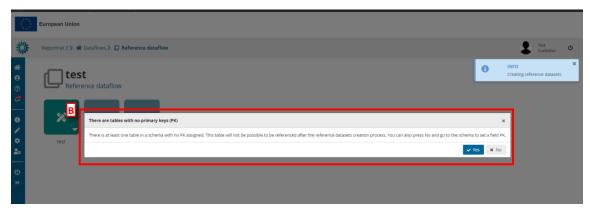


Figure 73 Check PKs in reference datasets



4 Dataflow in reporting phase

4.1 Dataflow

4.1.1 Permissions depending on user role

Different permission depending on role during reporting phase:

- Custodian/Steward read-only permission except for TEST dataset with write permission
- Observer read-only permission.
- National Coordinator read-only permission.
- Lead-reporter Write permission
- Reporter write Write permission
- Admin can see the list of all dataflows of any type and have option to give rights. Inside
 the dataflow you can see the dataflow help and manage the requesters.
- Steward support read-only permissions except for test dataset edition, full access to technical acceptance workflow, can update documentation and weblinks, can manage lead reporters and gets mail notification when there is a delivery.

4.1.2 How to work with the dataflow page during reporting



Figure 74 Dataflow page - reporting phase

- [A] Add new lead reporters to the dataflow.
- [B] Dashboards present an overview of the reporting process (validations, release status).
- [C] View the collated submitted data from here the data collection (DC).
- [D] Take a copy of the data in the current data collection over to the EU dataset.
- [E] View the EU dataset.
- [F] Export the EU dataset to the Common Workspace (triggers a configurable FME process, see section 4.1.7).
- [G] You can see the reporting status of each single country by clicking on the icon associated with the country name (only one country is shown in the above).
- [H] Communication between Lead Report and Custodian during release phase (see section 4.1.10).
- [I] Review of the data released in the data collection (see section 4.1.9)
- [J] TEST dataset for supporting reporters and trying to reproduce a situation (see section 4.1.15)



4.1.3 How to see an overview of reporting progress

- 1. From the 'Dataflow' page click on 'Dashboards'.
- 2. For each country reporting under the dataflow, you can see an overview of the errors under the 'Validation dashboards'.
- 3. You can also see the status under the 'release status dashboards' released/unreleased, which reflects whether they have delivered a snapshot to the data collection.

At the top of the page, there are means for filtering by country and/or the table within each dataset. It is possible to filter by error type.

4.1.4 How to add reporters after reporting has started

- 1. Go to the dataflow page.
- 2. There is an icon on 'Manage lead reporters'.
- 3. A pop-up will appear where you can add reporters.

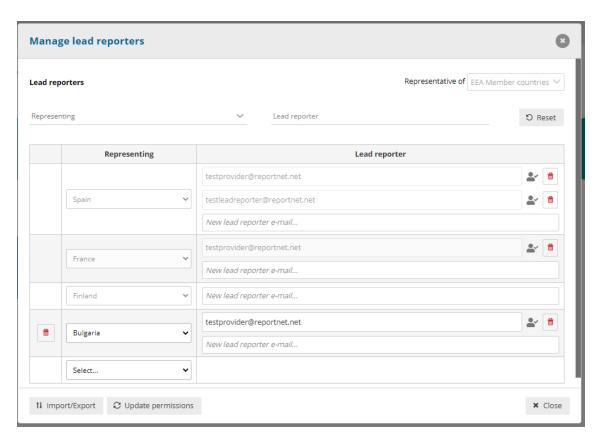


Figure 75 Manage lead reporters

- 4. Add the lead reporter accounts. Under the account field, add the registered users email address and select a country. Click on the dialogue away from the input fields.
 - i. If the system cannot find the email as a registered user, then a red box will appear around the email address and an icon indicating the user is not valid. Moreover, you have a button "Update the permissions" to check if the user is or not created and has permissions.
 - ii. If it is accepted, then you will be able to add another reporter and so on.



- 5. Only one lead reporter needs to be assigned per country because the lead reporters manage additional access for their countries.
- 6. Once you have added all your reporters click 'Close'.
- 7. New icon appears 'Create new datasets', to create datasets for the new representatives added.



Figure 76 Create new datasets

4.1.5 How to see the list of users by country in a dataflow

- 1. Go to the dataflow page.
- 2. There is an icon on 'User list by country' [A].
- 3. A pop-up [B] will appear where you can see the list of users for this dataflow and the country.

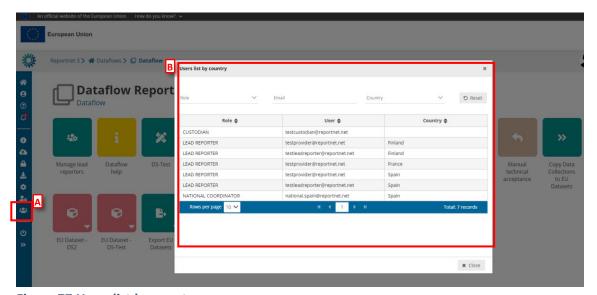


Figure 77 Users list by country

4.1.5.1 How to download the list of users by country in a dataflow

- 1. Go to the dataflow page.
- 2. There is an icon on 'User list by country' [A].
- 3. A pop-up will appear where you can see the list of users for this dataflow and the country.
- 4. If we click on the button [B], we download the 'User list by country' list.

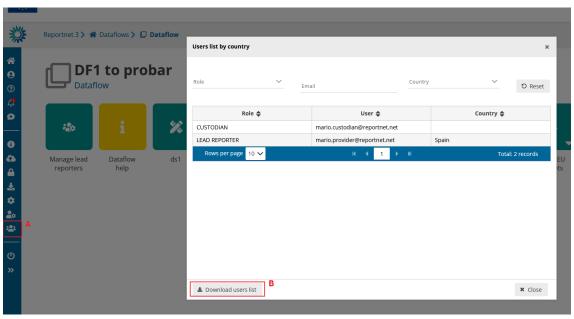


Figure 78 Download users list

4.1.6 How to configure the FME process used to copy EU dataset to the Common Workspace



Figure 79 Update Configuration EU Dataset

- 1. Click on the sub-menu on the 'Export EU datasets' button.
- 2. Configure the external integration accordingly by clicking on 'Update configurations'.
- 3. Note: It is the same configuration screen as the one displayed in Figure 55 *External integration import and export*.



4.1.7 How to export data to the common workspace



Figure 80 Export EU Datasets

- 1. Click on the icon 'Export EU datasets' button.
- 2. A confirm dialogue appears to export EU datasets and the user will be notified when each schema of the dataset is exported correctly.

4.1.8 How to see the latest draft data

- 1. From the 'Dataflow' page click on the dataset for the country you are interested in.
- 2. You see the data as read only in the individual data for each reporter in its latest state, which may be different to the version released to the data collection, if they have continued to work on it.

4.1.9 How to review the data released



Figure 81 Manual technical acceptance

The custodian can review data released and send feedback using 'Manual technical acceptance' button.

- 1. When the reporter releases data the status is marked as 'Final feedback'.
- 2. The custodian can now make a review of the data released in the data collection.
- 3. It is possible to set the status to 'technically accepted' or 'correction requested'.
- 4. If 'correction requested', the data stays in the data collection and feedback is sent to Lead Reporter and Reporting Dataset status is updated.
- 5. If its 'technical accepted' then the version in the data collection is marked as such and Reporting Dataset status is updated.



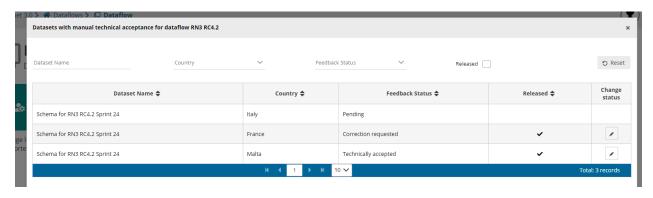


Figure 82 Feedback Status

4.1.10 How to Communicate with Lead Reporter



Figure 83 Feedback

- 1. When data is released, a channel to communicate with Lead Reporters appears at Dataflow level ('Technical Feedback' button).
- 2. User can select a country and see the messages (not read), get previous messages and the option to add new messages (text messages, upload files and delete a message).
- 3. Note: Communication for technical acceptance review (see section 4.1.10) is also included in this Feedback section.

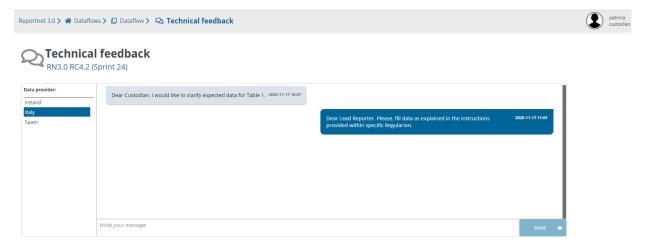


Figure 84 Technical feedback messages



4.1.11 How to mark for automatic data+snapshots deletion

Some dataflows must store data for a maximum period of time and system must be remove automatically some data. You can configure a dataflow to be deleted reporter datasets after technical acceptance step was set to ACCEPTED.

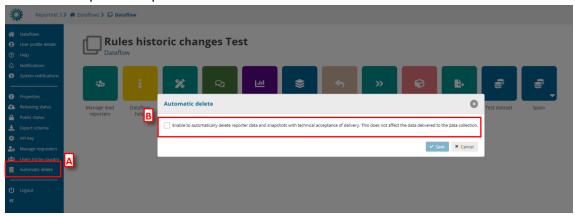


Figure 85 Automatic delete

- 1. Go to the dataflow page.
- 2. There is an icon on 'Automatic delete' [A].
- 3. A pop-up will appear where you check if enable/disable [B] the automatically delete reporter data and snapshots with technical acceptance of delivery. This does not affect the data delivered to the data collection.

4.1.12 How to consult Historic Releases

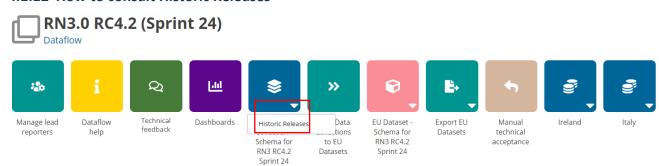


Figure 86 Historic Releases DC

- 1. From the 'Dataflow' page click on click on 'Historic Releases' button inside Data Collection context menu.
 - i. A new dialogue will appear with the release history for this data collection.



RN3.0 RC4.2 (Sprint 24) **\$** -Q Ш **>>** Technical feedback Dataflow Dashboards Data Copy Data Ireland Historic Releases reporters help Collection Collections technical Schema for RN3 RC4.2 to EU RN3 RC4.2 acceptance Datasets Sprint 24

Figure 87 Historic releases EU dataset



Figure 88 Historic Releases EU Dataset list

- 2. From the 'Dataflow' page click on click on 'Historic Releases' button inside EU Dataset context menu.
 - i. A new dialogue will appear with the release history for this EU Dataset.
 - ii. If we have a released dataset, on the 'Country code' column we have a link with a redirection to this country dataset.
 - iii. Note: This Historic will be empty until Data collections is copied to EU datasets correctly.

4.1.13 How to close/open release process

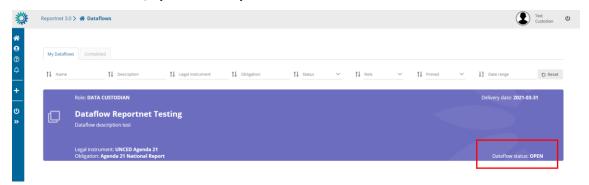


Figure 89 Dataflow status OPEN

When you create a data collection the status by default of this dataflow is OPEN





Figure 90 Releasing status

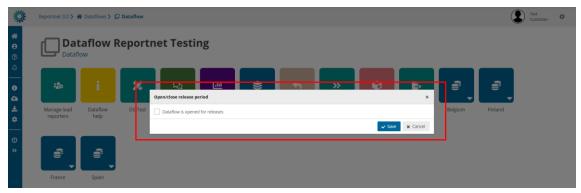


Figure 91 Open/close release period

If you want to change the status, you can click on "Releasing status" and a check appears showing if reporting is open or not. You can change it by clicking on check and saving.

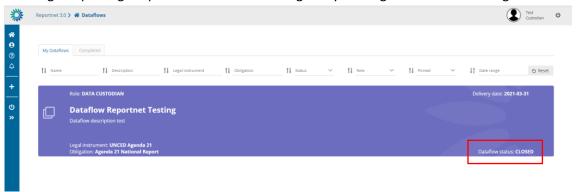


Figure 92 Dataflow status CLOSE



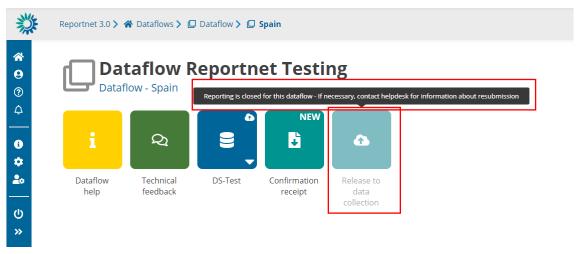


Figure 93 Disabled release

If you close the reporting, reporters won't be able to release data. It means that the button 'Release to data collection' will be disabled and a tooltip will be appear explaining that the releasing period is closed.

4.1.14 How to manage external integrations in reporting dataflows

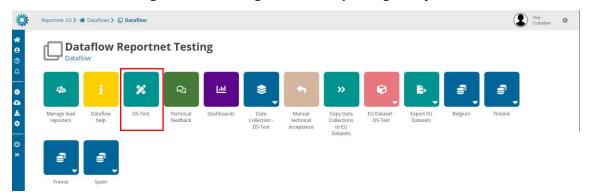


Figure 94 Design dataset

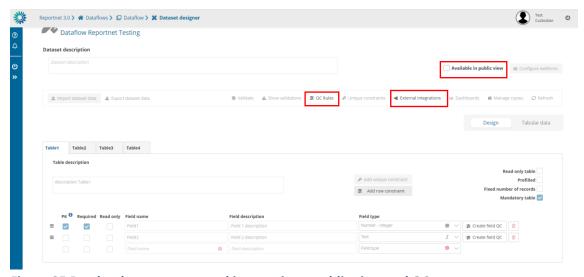


Figure 95 Read-only except external integrations, public view and QCs



You can be able to manage the external integrations for all datasets in reporting phase. If you click on the design dataset you can see that everything is read-only except the external integrations configurations, QC Rules and publicly available.

4.1.15 How to reproduce reporters' feedback

1. Once data collection has been opened, a **TEST** dataset is created where the data custodians have a place to do also tests, in support of the reporters trying to reproduce a situation.



Figure 96 TEST dataset

2. There is no option to release data, no dashboard and no public information.

4.1.16 How to consult the QC rules history

For the dataflows in reporting phase, you have the possibility to check the history of all changes for the QC rules.

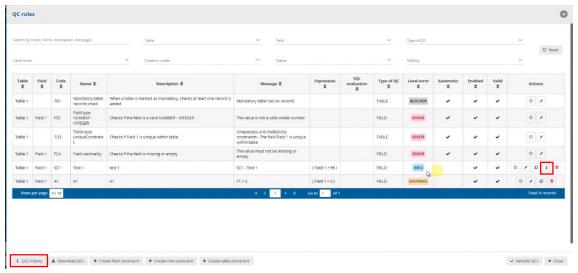


Figure 97 QCs history button in QC rules

You can consult the QCs history by clicking on the 'QCs history' button and also you can see the info for each manual QC.

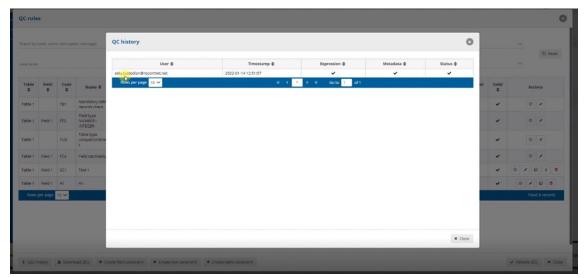


Figure 98 QC history



5 System Notifications

5.1 How to launch System notifications. (Only Admin)

- 1. Click on the icon [A] 'System Notifications'.
- 2. Click on [B] Add Button.
- 3. Add the message [C].
- 4. Select the level of the notification (INFO, SUCCESS OR ERROR) and check if we enable or disable the notification. [D]
- 5. Click on save [E] and the notification will be created.

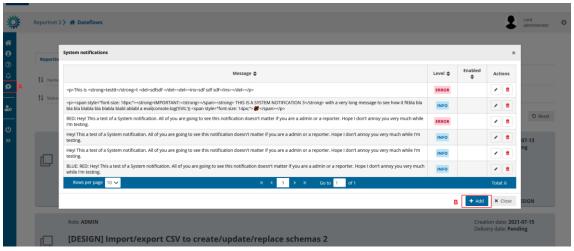


Figure 99 System notification list

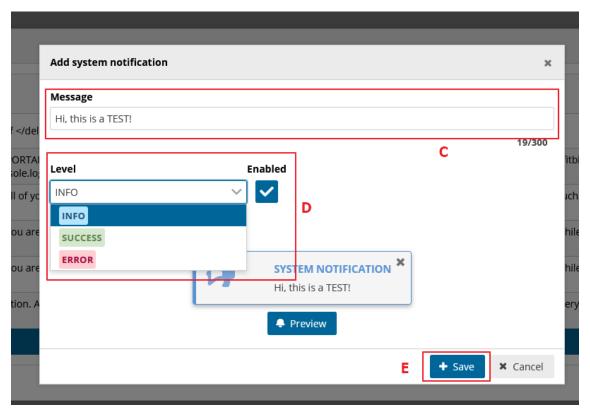


Figure 100 Add a system notification



If you have a system notification active you will see an exclamation on the system notifications icon.

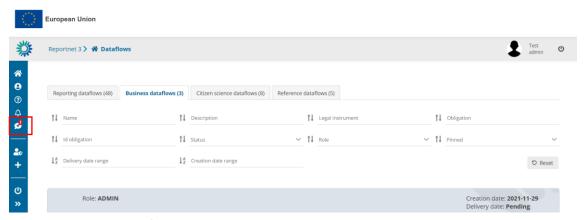


Figure 101 System notification alert