

TRASYS International

Business Processes for Reportnet 2.0

Scoping study for Reportnet 3.0

Date: 26/09/2018
Doc. Version: 3.0

TABLE OF CONTENTS

1 OVERVIEW	3
1.1 Scope	3
1.2 The analysis process	3
1.3 The reporting reference model	4
1.4 Structure of the document	5
2 REPORTNET BUSINESS PROCESSES	6
2.1 Planning an implementation of a dataflow	6
2.2 Deciding data to be delivered and designing an XML schema	8
2.3 Helpdesk Process	8
2.4 Create eionet account	14
2.5 Implementing a new web questionnaire	14
2.6 Initial Delivery to CDR	17
2.7 Resubmission process.....	17
3 DETAILED BUSINESS PROCESS	19
3.1 Air Quality Directive IPR.....	19
3.2 Water Framework Directive (WFD)	52
3.3 Industrial Emissions Directive (IED)	64
3.4 Nationally Designated areas (CDDA).....	68
3.5 Drinking water directive (DWD).....	70
3.6 Monitoring Mechanism Regulation (MMR)	71
APPENDIX 1: REFERENCES AND RELATED DOCUMENTS	97
APPENDIX 2: FIGURES	98
APPENDIX 3: ROLES AND ACTORS	99

1 OVERVIEW

1.1 Scope

The scope of the project is to design a modernised reporting system that will integrate new ideas about actions to streamline reporting, take into account national capabilities and produce a platform that can support the new challenges in reporting for the years 2020 to 2030 and possibly beyond.

The scope of the study is to create a better understanding of the enterprise architecture – business processes and IT systems -, which will make it easier to manage the system afterwards.

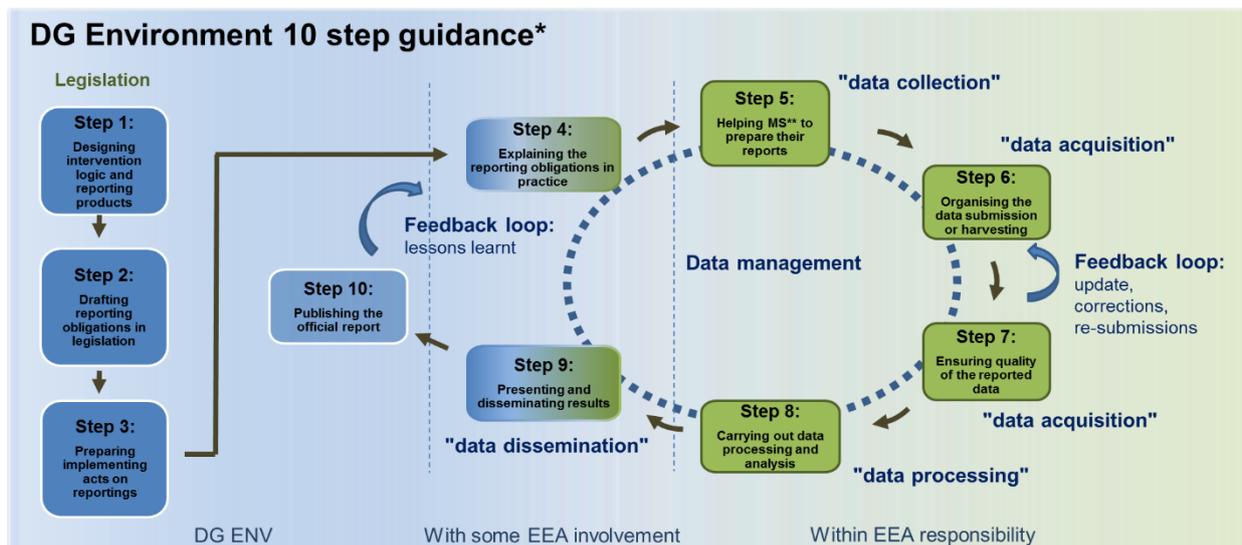
For that reason, this Business process document is providing an understanding of the business processes and how they interact in the current Reportnet system.

1.2 The analysis process

This product and the analysis which went into it is part of the business analysis process which will deliver requirements and a target architecture for Reportnet 3.0. This 'Business Process' fits into the overall process as detailed below. Inputs come from the interviews and desktop analysis of selected business process. The information captured here will be used to formulate the Reportnet 3.0 requirements.

1.3 The reporting reference model

The reference model for the reporting process is the commonly agreed 10 generic step model. In the evaluation, this reference model is used to anchor what is captured.



The relevant steps are further divided into sub-steps:

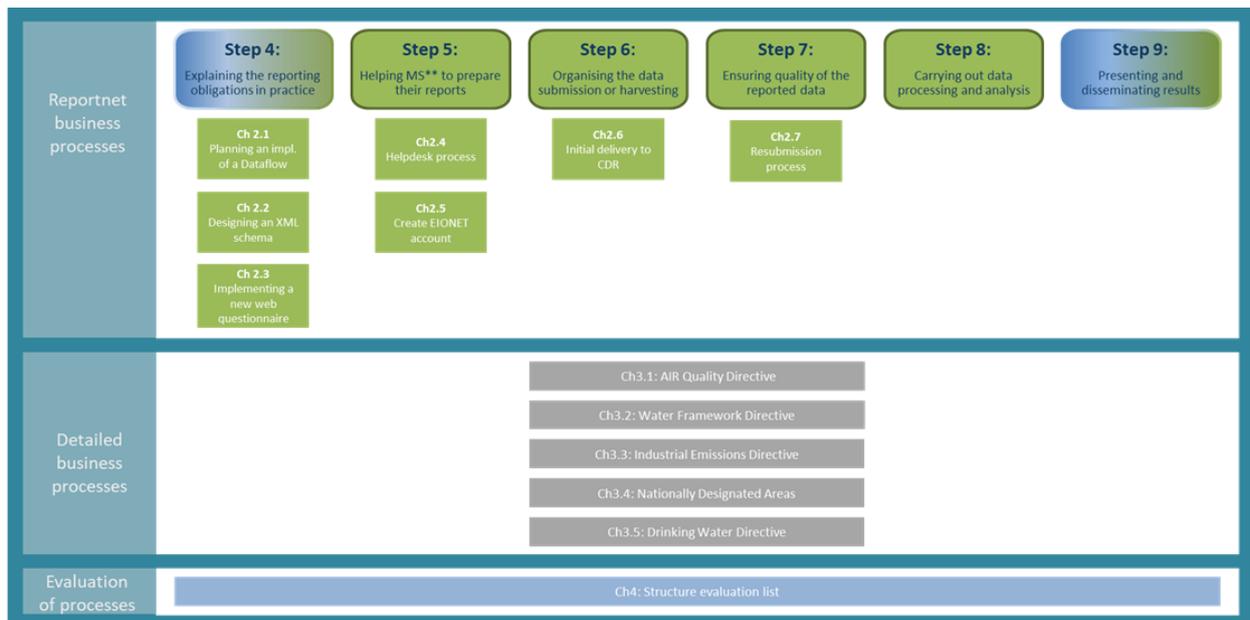
Step 4 Explaining the reporting obligations in practice	Step 5 Helping MS to prepare their reports	Step 6 Organising the data submission or harvesting	Step 7 Ensuring quality of the reported data	Step 8 Carrying out data processing and analysis	Step 9 Presenting and disseminating results
4.1 Define reporting requirements	5.1 Establish helpdesk	6.1 MS delivery	7.1 Execute automated QA/QC	8.1 Create European datasets	9.1 Publish online data and map products
4.2 Plan for other obligation e.g. INSPIRE	5.2 Develop reporting tools i.e., DExM, Forms	6.2 MS resubmission	7.2 Execute manual QA/QC	8.2 Create value added data visualisation products	9.2 Create Implementation reports
4.3 Design data model	5.3 Implement QA/QC tools	6.3 Monitor status	7.3 Publish QA dashboards and data visualisation		9.3 Create Evaluation reports
4.4 Define XML schema	5.4 Configure Reportnet for reporting				9.4 Undertake Reviews
4.5 Define dataflow	5.5 Configure Reportnet for MS				9.5 Communicate

4.6 Develop guidance document	5.6 Help MS in preparation				
4.7 Define QA/QC rules					

1.4 Structure of the document

The document is divided into three sections:

- 1. Reportnet Business Processes** – this section describes the generic processes which are executed in the reporting process
- 2. Detailed Business Processes** – this section describes in detail the business process for 6 specified obligations
- 3. Evaluation of process** – this section evaluates the feedback received from the interviews (and evaluation of the detailed business processes), categorising each feedback against the reference model.



2 REPORTNET BUSINESS PROCESSES

2.1 Planning an implementation of a dataflow

In this section the main scope is to analyse the end to end process of deciding and initiating the implementation of an obligation in Reportnet system and the different parties involved in the process.

1. When an initial request is sent to the EEA to take on board a new dataflow, an EEA thematic expert is assigned to start the internal approval process within the EEA, this person takes on the role of data steward for the dataflow.
2. The data steward in the early stages will help to draft a rough estimate based on the expected internal and/or external requirements (e.g. resources for implementation, server hosting, internal/external consultants, and future maintenance of the obligation).
 - a. If the request involves an update of an existing dataflow, should be taken into consideration while the preparation of the estimations.
3. The Data Steward prepares the Project Proposal and submitted to Committee since the new dataflow requests must go through the IT Steering Committee for approval.
4. It's the ICT Steering committee responsibility to provide a recommendation to the Senior Management Team. If it is negative, the project is either dropped or a simplified version/different approach can be prepared and sent again to the ICT Steering committee.
5. In case of positive decision the recommendation it is sent to the Senior Management Team for final approval and the data steward in updating the Report Obligation Directory in Reportnet.
6. The data steward in close collaboration with IDM Programme is initiating the request for project proposal. The Data Steward is responsible for the internal and external communication as well as to follow the deadlines of the obligation. Some of the most important tasks performed are:
 - a. Coordinates the different teams involved in the entire process.
 - a. Assist in the final required data structure, define and agree the flow to be configured between countries and EEA.
 - b. Agree and follow up to incorporate the dataflow into Reportnet and direct QA/AC required.
 - c. Agree and follow up on the helpdesk requirements for this data flow.
 - d. Agree and follow up to produce an automated European dataset production.
 - e. Agree and follow up the creation of final products such as access databases or interactive products (Dashboards/Maps).

Planning an implementation of a dataflow

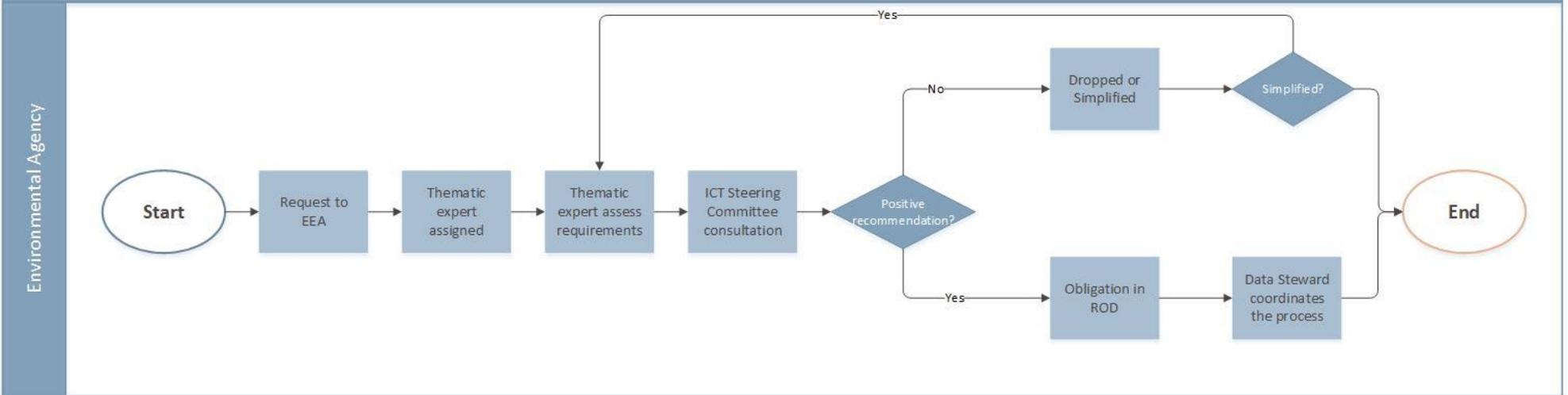


Figure 1: Planning an implementation of a dataflow

2.2 Deciding data to be delivered and designing an XML schema

The decision of transferring the legal directives into specifications and how the data to be delivered in Reportnet is the main and longer task that is performed by the data steward. The decision involves how the identified requirements will impact the different systems that are participating in the reporting process.

The data steward assigned to each new obligation, cooperates with ETC and European Commission to clarify and take decisions on the data to be reported under the reporting obligation. European Commission organizes meetings with representatives of Member States where reporting details are clarified for mandatory elements versus optional.

The main questions that this activity needs to provide answers for are, who needs to report, when is the report due, to whom should it be reported, what is the specification of the information to report, looking at the fields and their potential values, where in the reporting workflow does quality control need to take place, and what is the definition of those rules;

The mentioned questions support the clarification and production of detailed specifications for the data to be submitted under the reporting obligations. This includes the specification of fields and data types in different tables that make up datasets, and also the reference data set as allowed values for fields. The result of this work is published in the Data Dictionary¹ component.

2.3 Helpdesk Process

When a user of the Eionet Forum or any Reportnet website, experiences a technical problem related to the reporting process, addresses Eionet helpdesk team for resolution. Eionet Helpdesk is organized in queues, which help classify incoming requests into groups of requests. Some queues are assigned to a specific email address while some others are not. All problems reported, are currently logged in OTRS ticketing system, allowing for:

- Capturing all communications and information.
- Organizing and managing tasks more easily.
- Enabling statistics.
- Keeping track of the issues' resolution progress.

In order to report a problem to Eionet Helpdesk, either of the following three options might be used:

1. Send an email to one of the email addresses assigned to one of the queues.
2. Create a new ticket through the agent web interface.
3. Create a new ticket through the customer web interface.

Each action will create and log a new ticket in OTRS system. Every ticket created in OTRS, will be assigned to a specific queue based on the queue/email selected. All requests will be sent to a specific queue based on their topic and should be handled by a specific group of people - relevant to the topic of the queue - which is responsible for the ticket resolution. Tickets related to queues not assigned to a specific email address are forwarded to these by members of the queues assigned to an email address. In general, the ticket might:

- Be resolved by the helpdesk team;
- Be re-assigned to another queue in case another person / group of people is responsible for it (inside the ticketing system);
- Be forwarded to data stewards or experts (outside the ticketing system) with a specific template for resolution. This happens for data flows for which no queue has been setup yet.

Upon ticket creation, helpdesk's objective is to handle the request as soon as possible or at least acknowledge the receipt of it as soon as possible. Each ticket created, triggers an automatic response using a pre-defined template.

¹ <http://dd.eionet.europa.eu/>

2.3.1 Helpdesk service request process – Ticket processing

Name of Process	Helpdesk service request process – Ticket processing
Process Owner	Helpdesk agents
Process Purpose	The purpose of the process is to outline how a service request is received and handled by the Eionet Helpdesk team.
Process Scope	Helpdesk service requests are logged and managed through a ticketing system, which is categorized in queues. Each request is sent to a queue and can be resolved by the members of this queue. Upon ticket creation, helpdesk’s objective is to handle the request as soon as possible or at least acknowledge the receipt of it as soon as possible. The helpdesk team can resolve the ticket and in case of objection, the ticket originator might reopen it.
Process Input	<p>A new ticket is created with either of the following three ways in the ticketing system:</p> <ul style="list-style-type: none"> • Email is sent to an email address assigned to one of the queues. • A new ticket is created by the agent interface: https://helpdesk.eionet.europa.eu/otrs/index.pl. • A new ticket is created by the customer interface: https://helpdesk.eionet.europa.eu/otrs/customer.pl. <p>Upon ticket creation, an automatic receipt is sent through the system to the ticket originator.</p> <p>The helpdesk agents of a specific queue get notified about it via email based on their personal preferences. In case the helpdesk agent has selected to receive no email notifications when a new ticket arrives in the queues/services, no email notification will be sent to this agent and will only see the ticket in the list with the open tickets for the queue.</p>
Process prerequisites	<ul style="list-style-type: none"> • The ticket created is assigned to a helpdesk queue. • This specific helpdesk team (queue) is responsible for serving this request. • The helpdesk agent has an Eionet account with the necessary access rights for accessing and serving the request.
Main Process Flow	<p>The Helpdesk agent is acting as follows:</p> <ol style="list-style-type: none"> 1. Finds the ticket in the list with the open requests of the queue belonging to that agent. 2. Accesses the ticket page to see the details of it. 3. Investigates the request. 4. Locks the ticket to work on it. 5. Serves the ticket. 6. Writes a response to the ticket originator through the ticketing system providing clarifications and sets the next status of the ticket to one of the closed states based on its resolution. <ul style="list-style-type: none"> • In case the agent was able to successfully serve the ticket, its status is set to “Closed Successful”. • In case the agent was not able to successfully serve the ticket, its status is set to “Closed Unsuccessful”. <p>The process is graphically represented in Figure 2: Helpdesk - ticket processing.</p>
Process Output	<ul style="list-style-type: none"> • The ticket is closed and is not displayed in the list with the open tickets that should be somehow handled or escalated again.

Exceptions to Main Process Flow	<ul style="list-style-type: none">• Re-opening a ticket: The ticket might be reopened after one of the closed statuses from the ticket originator (normally in case of objection): After receiving the email for ticket closure, the originator is able to reopen it, by responding to any of the emails regarding the case. When the system receives the email with the ticket number of a closed ticket in the subject, the ticket will be automatically reopened. The agent will be notified accordingly (The ticketing system administrator might configure this and not allow the response to a closed ticket to reopen it. If configuration does not accept auto-reopening a ticket via email, receiving such an email will auto-create a new ticket).• Request for originator feedback: In some cases, the agent might require further input or feedback from the ticket originator in order to resolve it. In these cases, after step 5, the agent sends a response to the originator through the ticketing system, without setting the next ticket state to any of the closed statuses. In such cases, the agent should set the ticket to a pending status (based on best practices proposed) which will be set to open as soon as a reply from the originator is received. Agent proceeds with step 6 after receiving the requested feedback.
--	--

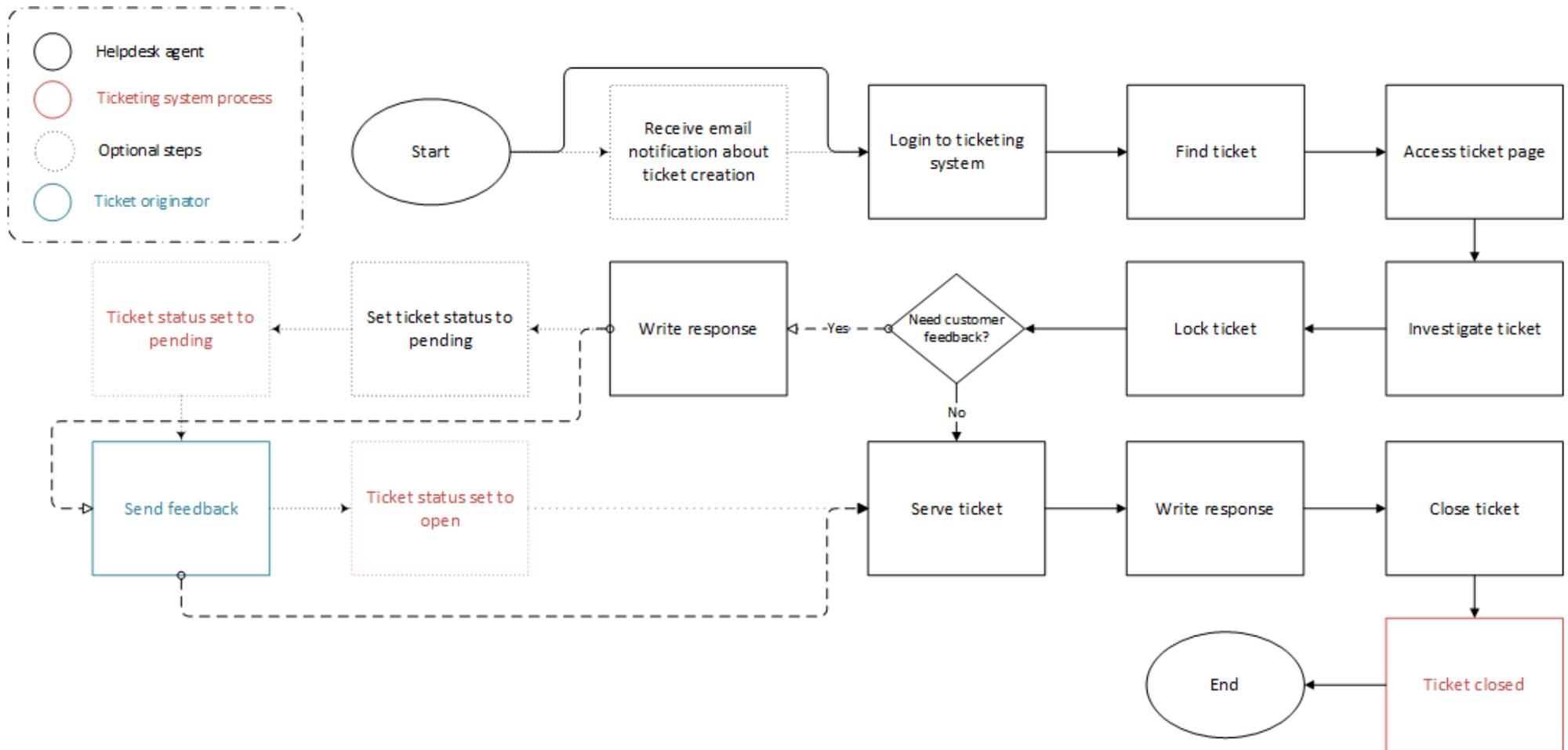


Figure 2: Helpdesk - ticket processing

2.3.2 Helpdesk service request process – Ticket delegation

Name of Process	Helpdesk service request process – Ticket delegation
Process Owner	Helpdesk agents
Process Purpose	The purpose of the process is to outline how a service request is received and re-assigned by the Eionet Helpdesk team to another queue depending on the nature of the ticket.
Process Scope	The helpdesk agent re-assigns the ticket to another queue in order to investigate and handle it.
Process Input	<p>A new ticket is created with either of the following three ways in the ticketing system:</p> <ul style="list-style-type: none"> • Email is sent to an email address assigned to one of the queues. • A new ticket is created by the agent interface: https://helpdesk.eionet.europa.eu/otrs/index.pl. • A new ticket is created by the customer interface: https://helpdesk.eionet.europa.eu/otrs/customer.pl. <p>Upon ticket creation, an automatic receipt is sent through the system to the ticket originator. The helpdesk agents of a specific queue are notified about it via email based on their personal preferences.</p>
Process prerequisites	<ul style="list-style-type: none"> • The ticket created is assigned to a helpdesk queue. • This specific helpdesk team (queue) is not responsible for serving this request. • The helpdesk agent has an Eionet account with the necessary access rights for accessing and serving the request. • The helpdesk agent has permissions to move the ticket to the queue which is responsible for it.
Process Flow	<p>The Helpdesk agent is acting as follows:</p> <ol style="list-style-type: none"> 1. Logs in to the ticketing system. 2. Finds the ticket in the list with the open requests for the queue he belongs to. 3. Accesses the ticket page to see the details of it. 4. Investigates the request. 5. Selects to move the ticket to respective queue. <p>The process is graphically represented in Figure 3: Helpdesk - ticket delegation.</p>
Process Output	<ul style="list-style-type: none"> • The ticket is now displayed in the new ticket list and should be somehow handled or escalated by the respective helpdesk agents. • The members of the new queue are notified about the ticket that arrived in their queue via email (based on the personal preferences of them).

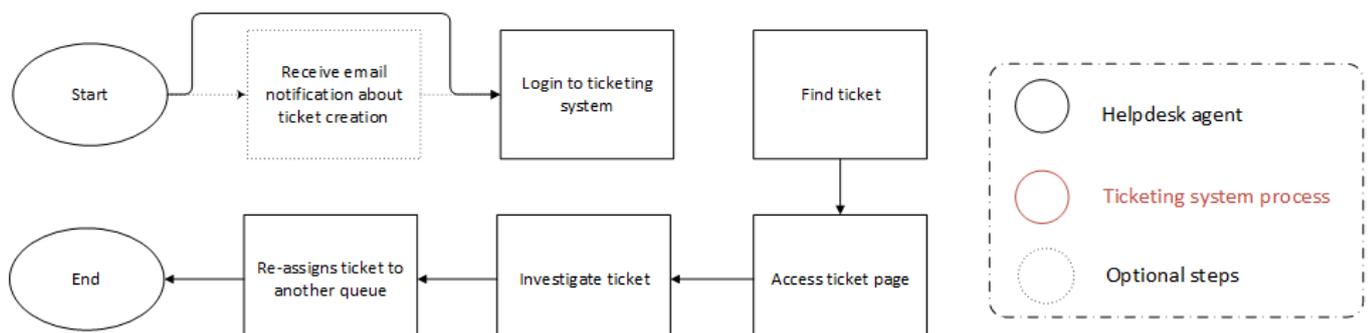


Figure 3: Helpdesk - ticket delegation

2.3.3 Helpdesk service request process – Ticket external delegation

Name of Process	Helpdesk service request process – Ticket external delegation
Process Owner	Helpdesk agents
Process Purpose	The purpose of the process is to outline how a service request is received and forwarded via email by the Eionet Helpdesk team to external experts or data stewards.
Process Scope	Each request is sent to a queue but a request might be the responsibility of data stewards or experts that do not belong to any queue. In these cases, the helpdesk agent sends the details of the ticket via email to experts or data stewards for resolution.
Process Input	<p>A new ticket is created with either of the following three ways in the ticketing system:</p> <ul style="list-style-type: none"> • Email is sent to an email address assigned to one of the queues • A new ticket is created by the agent interface: https://helpdesk.eionet.europa.eu/otrs/index.pl • A new ticket is created by the customer interface: https://helpdesk.eionet.europa.eu/otrs/customer.pl <p>Upon ticket creation, an automatic receipt is sent through the system to the ticket originator.</p> <p>The helpdesk agents of a specific queue are notified about it via email based on their personal preferences.</p>
Process prerequisites	<ul style="list-style-type: none"> • The ticket created is assigned to a helpdesk queue. • This specific helpdesk team (queue) is not responsible for serving this request. • The helpdesk agent has an Eionet account with the necessary access rights for accessing and serving the request.
Process Flow	<p>The Helpdesk agent is acting as follow:</p> <ol style="list-style-type: none"> 1. Logs in to the ticketing system. 2. Finds the ticket in the list with the open requests for the queue that belongs to. 3. Accesses the ticket page to see the details of it. 4. Investigates the request. 5. Forwards the details of the ticket to the expert or data steward who is responsible to resolve it. 6. Closes the ticket as soon as a confirmation email is received by the expert / data steward that they will take care of it. <p>The process is graphically represented in Figure 4: Helpdesk - ticket external delegation.</p>
Process Output	<ul style="list-style-type: none"> • The ticket is closed and not displayed any more in the list with the open tickets that should be somehow handled or escalated again.

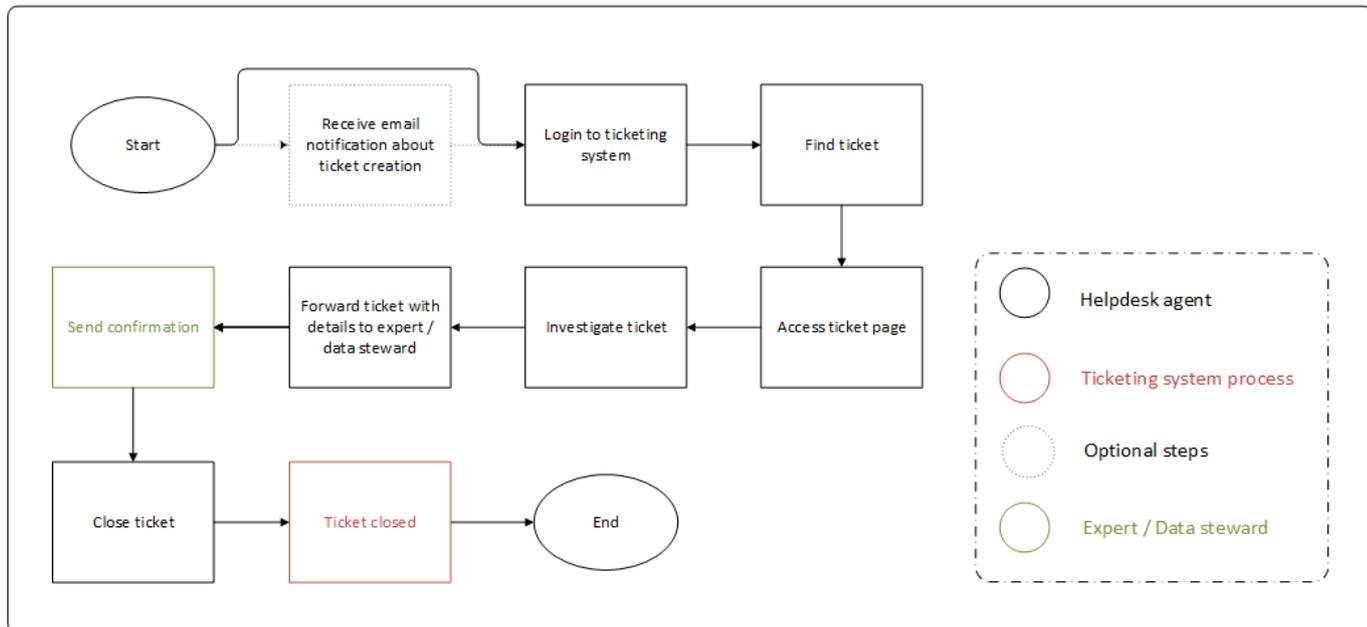


Figure 4: Helpdesk - ticket external delegation

2.4 Create eionet account

In order to obtain an Eionet account, a corresponding account creation request should be sent to the Eionet helpdesk team by a person who already has an Eionet account. No authorised access will be granted to an individual asking directly for account creation.

After the Eionet account has been created by a helpdesk agent, the responsible data steward grants access rights to the account of the user.

There are currently 16000 accounts in the EIONET database which more than half of them are disabled. In recent years, Helpdesk team is creating 500-700 accounts per year and disabling around 200-300 per year. Last, not all Eionet users are involved in reporting processes, but on average, there are 3500 deliveries per year, uploaded by 600-700 different users.

2.5 Implementing a new web questionnaire

The implementation of a new web form is a long task since involves many steps to be executed and coordinated by different parties. The steps that follow are the main ones recognised to have a complete web form.

Determine data to collect: The data steward in cooperation with the reporting countries is responsible to run this activity which is done at legislative level. It can be stated in the directive or regulation that certain data about the environment shall be reported.

Create XML schema: When it is known what data to collect, the ETC or the consultants create one or more XML schemas to contain the data. A schema can be written by hand or it can be generated by creating a dataset definition in the Data Dictionary.

Create QA rules: The data steward in cooperation with the IDM team defines the QA validations depending on the workflow and usually are stored in a Word document or Excel spreadsheet and are delivered to the responsible consultant for the implementation.

Create reference data: Reference data are the values for the drop down lists in web forms, and also larger datasets such as the list of administrative regions in Europe (The NUTS data) or monitoring stations etc. Many of these datasets are maintained in the vocabulary section of the Data Dictionary. However, they are also used in the QA scripts for validation and it's up to the dataflow steward to decide when to use the new edition.

Write XQuery script: XQuery is the software language that is used by the consultants to develop and design the QA validations. In this step the consultant is producing the QA rules in the respective component of Reportnet.

Write web forms: While the implementation phase of a new dataflow the data steward is responsible to decide how the new reporting obligation will be designed in Reportnet system and if a web form is needed or not. The web forms are assigned to external consultants for implementation and the data steward is providing usually as an initial feedback to the team an XLS file hosting all the keys and values that the form should include as long as the validations that should be performed in the user interface of the form while the reporter is filling the fields with data.

The web forms are integrated in the CDR reporting workflow in the sense that instead of uploading files, the reporter is transferred to the questionnaire, which the reporter can save and return to later as many times as required. The system however produces an XML-file directly in the reporter's envelope as requested for further processing.

Write conversions: Part of the reporting workflow is to provide a conversion service to reporters, depending on the dataflow, to convert between different formats (e.g. XML to Excel). The conversion service is an engine where number of scripts enable the system to perform the job. The service is largely transparent to the reporter where any user can run a conversion of a file without being a nominated reporter or going through the reporting workflow on CDR.

Data Dictionary uses the conversion services to generate template files (MS Excel, MS Access) from data definition file – XML Schema. XSLT scripts are written for any required data format conversions.

Create workflow: The creation of the workflows involves how the reporter will proceed with the reporting process in CDR, the envelope statuses, the proper handling of blocking errors, if any, and how the reporter should resubmit in case of request for additional feedback/correct errors. This is also a task developed by a consultant company.

Deploy in production: When all the modules are implemented and tested successfully by the consultant and the respective business users, they can be released to production environment. The release should include all the changes to the different systems identified to allow the reporters to be able to proceed with the end to end process successfully (e.g. CDR, DD and XMLCONV).

Write guidelines: The definition of process guidelines is a mandatory step in the creation of a new obligation in order to provide to reporters Implementing a new web questionnaire

Dataflow process creation

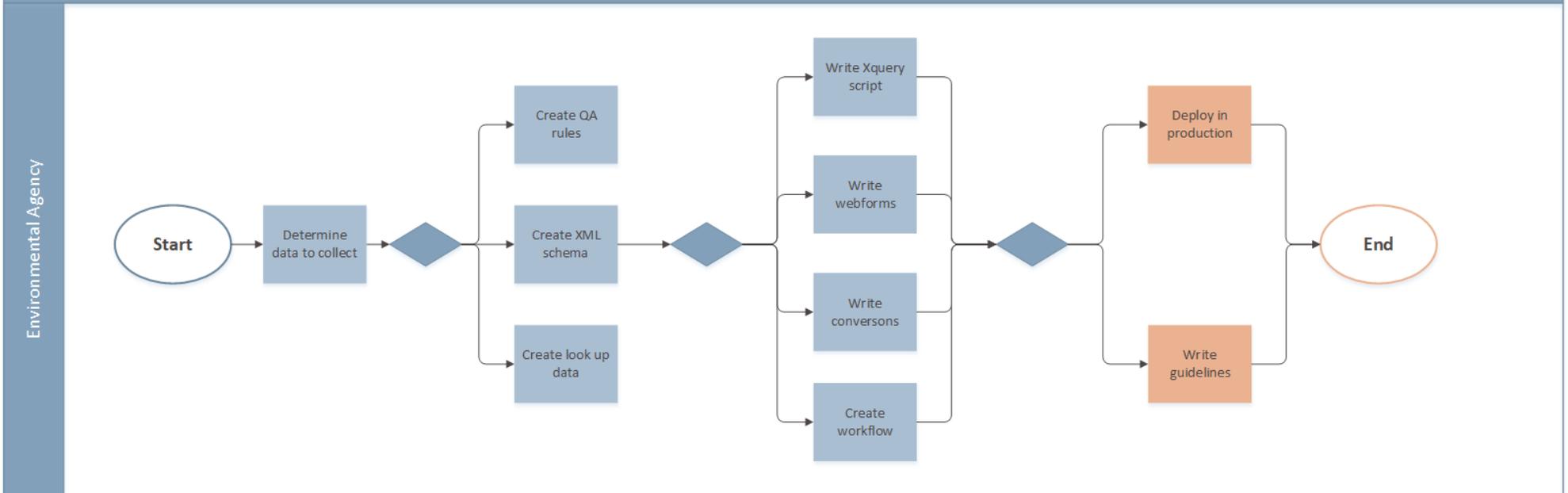


Figure 5: Dataflow process creation

2.6 Initial Delivery to CDR

Once the reporting country has requested and granted an EIONET account for the corresponding reporting obligation may follow the basic steps described in this section and upload the files in CDR.

The steps following are describing the main scenario that applies to the majority of the reporting obligations. There are exception however that are described in each obligation specifically.

The reporter is proceeding as follow:

1. Logs in to the CDR using the EIONET account.
2. Navigates to the already created folder under the corresponding country level repository in the CDR for each reporting obligation.
3. Creates an envelope to upload the files.
4. Activates the envelope to work on it.
5. Uploads all files separately or included in a zip file. In case of zip file, the system unwraps its content following the upload.
6. In case of uploading XML files, the reporter has the possibility to navigate to data dictionary and select to manually validate² them. This is an optional step to the process.
7. The reporter runs automatic QA validations, by pressing relevant button, to assess the quality of the files / data reported.
8. The results of the quality assessment will be displayed in the Data Quality section of the envelope in the CDR once the validation process is complete.
9. If blocking errors are detected by the system, the reporter reviews and fixes them so that no blocker errors exist and returns to step 5 to replace the files in the envelope.
10. If no blocking errors are detected, reporter proceeds to Step 11.
11. The reporter completes the delivery and releases the envelope.

System runs automatically quality assessment of all the GML and XML files uploaded. The system deletes automatically QA feedback already stored in the system.

In case of blocking errors and depending on the reporting obligation, a manual file check by the reporter or the process owner might be required. If possible, blocking errors should be fixed prior to the envelope release.

12. The system releases the envelope, the files included in it are considered to be officially delivered and a confirmation of receipt is also included in the envelope. The system closes the envelope.

2.7 Resubmission process

In case a resubmission of the files is required, files will be re-uploaded either in a new or in the existing envelope. Depending on the reporting obligation, the resubmission process will follow the same steps as the Initial Delivery to CDR.

The initial delivery to CDR and the resubmission processes are outlined in the figure below.

² In order to manually validate XML, the reporter has to copy the URL of the uploaded XML file and paste it in the "URL of the XML file" field of the "Validation" page under the "Conversion and Assessment Service" <http://converters.eionet.europa.eu/validation>.

3 DETAILED BUSINESS PROCESS

3.1 Air Quality Directive IPR

The Commission implementing decision of 12 December 2011 laying down rules for Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality (2011/850/EU) (also known as IPR, the acronym for Implementing Provisions on Reporting) establishes rules regarding the Member States' obligations to report on the assessment and management of ambient air quality as well as the reciprocal exchange of information. In the Air Quality Directive IPR there are provisions for reporting to the EEA information which is divided in fourteen (14) inter-connected data flows lettered from B to K.

In generating the necessary data files corresponding to these data flows, the countries must follow standardized XML schemas

3.1.1 Brief profile

AQD sets out a list of Reporting Obligations, which EU MS should take into account and manage in order to comply with the corresponding Directive. The list of the Reporting Obligations under AQD is outlined below:

- [\(B\) Information on zones and agglomerations \(Article 6\)](#)
- [\(B\) Preliminary information on zones and agglomerations \(Article 6\)](#) [Article 6.1]
- [\(C\) Information on the assessment regime \(Article 7\)](#)
- [\(C\) Preliminary information on the assessment regime \(Article 7\)](#) [Article 7.1]
- [\(D\) Information on the assessment methods \(Articles 8 and 9\) - for fixed and indicative measurements](#)
- [\(D1b\) Information on the assessment methods \(Articles 8 and 9\) - for models and objective estimation](#)
- [\(E1a\) Information on primary validated assessment data - measurements \(Article 10\)](#) [Article 10]
- [\(E1b\) Information on primary validated assessment data - modelled \(Article 10\)](#)
- [\(E2a\) Information on primary up-to-date assessment data - measurements \(Article 10\)](#) [Article 10.6]
- [\(F1a\) Information on generated aggregated data - primary validated measurements \(Article 11\)](#) [terminated]
- [\(F1b\) Information on generated aggregated data - primary validated modelled \(Article 11\)](#) [terminated]
- [\(F2\) Information on generated aggregated data - primary up-to-date measurements \(Article 11\)](#) [terminated]
- [\(G\) Information on the attainment of environmental objectives \(Article 12\)](#)
- [\(H\) Information on air quality plans \(Article 13\)](#)
- [Information on source apportionment \(Article 13\)](#) [Article 13]
- [\(J\) Information on the scenario for the attainment year \(Article 13\)](#)
- [\(K\) Information on measures \(Articles 13 and 14\)](#)

Some of the reporting obligations are already terminated. The business processes related to the active reporting obligations are presented in the following sections.

3.1.2 Reporting obligation for: (B) Information on zones and agglomerations (Article 6)

3.1.2.1 General information

According to 'Information on zones and agglomerations' reporting, MS shall make available the information on the delimitation and type of zones and agglomerations established in accordance with Article 3 of Directive 2004/107/EC and Article 4 of Directive 2008/50/EC for the purposes of air quality assessment and management.

Data flow B shall be reported in two forms;

- As a forwarding looking report by 31 December of each year to establish the zones that the Member States plans to implement for the assessment and management of air quality in the forthcoming calendar year. (preliminary B data flow – shortly pB see “Reporting obligation for: (B) Preliminary information on zones and agglomerations (Article 6)”)

- As a retrospective report by 30 September of each year to confirm (or otherwise) the zones that the Member States implemented for the assessment and management of air quality (data flow B)

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/670 http://www.eionet.europa.eu/aqportal

3.1.2.2 Reporting Process

Name of Process	(B) Information on zones and agglomerations (Article 6)
Process Owner	Data Steward
Process Purpose	MS shall make available information on the delimitation and type of zones and agglomerations established for the purposes of air quality assessment and management.
Process Scope	In this dataflow, the MS have to report to the Commission regarding the zones that were active during the previous year. In order to do so, the MSs have to divide the country in different zones covering the whole country for different pollutants and environmental objectives.
Process Input	<ul style="list-style-type: none"> The countries will deliver the data into the CDR as XML files, plus zones' geometries reported as GML embedded in XML or external ESRI shape files, containing the following information: <ul style="list-style-type: none"> Provider (data type 'Contact Details') Change documentation (data type 'Documentation of Change') Zone code Zone name Zone type Zone delimitation (data type 'Spatial Extent') Zone history: application start and end date Predecessors (link to B) Resident population Resident population reference year Code of designated pollutant Protection Target Exemption or postponement according to Article 22 of Directive 2008/50/EC In case of resubmission, the justification document³ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> Country folders for (B) Information on zones and agglomerations (Article 6) exist in the CDR. The MS Reporter has an Eionet account with the necessary access rights for uploading the files.

Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

<p>Process Flow</p>	<p>Air Quality Directive IPR - (B) Information on zones and agglomerations (Article 6) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <ol style="list-style-type: none"> 11. Completes the delivery and releases the envelope. System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored. In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files. If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode. 12. Once effectively released, the files will be manually reviewed by the EEA – ETC / ACM, based on results of geometry checks which run outside CDR. In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be "Technically accepted". 13. Regardless of the request for corrections, the envelope will be completed and the data will be imported in EEA's system. <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. • QC validations take place for the XML files <p>QC validations: QC on data flow B are based on the XML delivered. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqac/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references • failure at crucial QC checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions could be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
<p>Process Output</p>	<p>Envelope is closed and the XML, GML and / or shape files will be published. Data released, will be ready to be used for AQ report and other EEA official products.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
<p>Exceptions to Normal Process Flow</p>	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.</p> <p>External geometry checks: the checks are performed by FME both for draft and released envelopes.</p>

3.1.3 Reporting obligation for: (B) Preliminary information on zones and agglomerations (Article 6)

3.1.3.1 General information

MS shall report to the commission regarding the information on zones and agglomerations established in accordance with Article 3 of Directive 2004/107/EC and Article 4 of Directive 2008/50/EC that will be active during the upcoming year.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/693 http://www.eionet.europa.eu/aqportal

3.1.3.2 Reporting Process

Name of Process	(B) Preliminary information on zones and agglomerations
Process Owner	Data Steward
Process Purpose	MS shall make available information on the delimitation and type of zones and agglomerations established for the purposes of air quality assessment and management.
Process Scope	In this dataflow, the MS have to report to the Commission regarding the zones that will be active during the upcoming year. In order to do so, the MSs have to divide the country in different zones covering the whole country for different pollutants and environmental objectives.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files, plus zones' geometries reported as GML embedded in XML or external ESRI shape files, containing the following information: <ul style="list-style-type: none"> ○ Provider (data type 'Contact Details') ○ Change documentation (data type 'Documentation of Change') ○ Zone code ○ Zone name ○ Zone type ○ Zone delimitation (data type 'Spatial Extent') ○ Zone history: application start and end date ○ Predecessors (link to B) ○ Resident population ○ Resident population reference year ○ Code of designated pollutant ○ Protection Target ○ Exemption or postponement according to Article 22 of Directive 2008/50/EC

	<ul style="list-style-type: none"> In case of resubmission, the justification document⁴ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> Country folders for (B) Preliminary information on zones and agglomerations (Article 6) exist in the CDR. The MS Reporter has an Eionet account with the necessary access rights for uploading the files.
Process Flow	<p>Air Quality Directive IPR - (pB) Preliminary information on zones and agglomerations reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <ol style="list-style-type: none"> 11. Completes the delivery and releases the envelope. System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored. In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files. If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode. 12. Once effectively released, the files will be manually reviewed by the EEA – EC / ACM. In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be "Technically accepted". 13. Regardless of the request for corrections, the envelope will be completed and the data will be imported in EEA's system. <p>Notes:</p> <ul style="list-style-type: none"> Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. QC validations take place for the XML files <p>QA validations: The full list of the QA checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), failure at XML schema validation, failure at xlink references failure at crucial QA checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions could be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	Envelope is closed.

⁴ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	In case of resubmission within the deadline, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.</p> <p>External geometry checks: the checks are performed by FME both for draft and released envelopes.</p>

3.1.4 Reporting obligation for: (C) Information on the assessment regime (Article 7)

3.1.4.1 General information

According to ‘Information on the assessment regime’ reporting, MS shall make available information on the assessment regime to be applied in the following calendar year for each pollutant. This data flow allows for comprehensive description of the assessment methods applied, which will include fixed measurements and may include indicative measurements, modelling and objective estimation; according to Article 2 (4) of the Directive 2008/50/EC, ‘assessment’ shall mean any method used to measure, calculate, predict or estimate levels’.

Data flow C shall be reported in two forms:

- As a forwarding looking report by 31 December of each year to establish the assessment regime that the Member States plans to implement for the assessment and management of air quality⁶ in the forthcoming calendar year. (preliminary C – shortly pC see “Reporting obligation for: (C) Preliminary information on the assessment regime (Article 7)”))
- As a retrospective report by 30 September of each year to confirm (or otherwise) the assessment regime that the Member States implemented for the assessment and management of air quality in the previous calendar year. (data flow C)

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/671 http://www.eionet.europa.eu/aqportal

3.1.4.2 Reporting Process

Name of Process	(C) Information on the assessment regime (Article 7)
Process Owner	Data Steward
Process Purpose	<p>MS shall make available to the Commission, as a retrospective report, the assessment regime that the Member States implemented for the assessment and management of air quality in the previous calendar year.</p> <p>In addition, information about designated competent authorities and bodies responsible for different aspects of quality assurance must be provided under this data flow.</p>
Process Scope	Refers to the way that MS are monitoring air quality within each of the air quality zones.

Process Input	<ul style="list-style-type: none"> • The countries will deliver the information on the assessment regime data into the CDR as XML files containing the following information: <ul style="list-style-type: none"> ○ Provider (data type ‘Contact Details’) ○ Change documentation (data type ‘Documentation of Change’) ○ Information on zone (link to B) ○ Pollutant ○ Environmental objective (data type ‘Environmental Objective’) ○ Attainment of assessment threshold ○ Assessment threshold classification year ○ Documentation of the classification (web link) ○ Assessment type ○ Assessment type: Description ○ Individual assessment metadata, including station ID, location information (link to D) ○ Authority responsible for the assessment of air quality (data type ‘Contact Details’) ○ Authority responsible for the approval of measurement systems (data type ‘Contact Details’) ○ Authority responsible for ensuring the accuracy of measurements (data type ‘Contact Details’) ○ Authority responsible for the analysis of assessment method (data type ‘Contact Details’) ○ Authority responsible for the coordination of nation-wide quality assurance (data type ‘Contact Details’) ○ Authority responsible for the cooperation with other Member States and with the Commission (data type ‘Contact Details’) <p>In case of resubmission, the justification document⁵ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.</p>
Process prerequisites	<ul style="list-style-type: none"> • Country folders for (C) Information on the assessment regime (Article 7) exist in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the files. • QC on data flow C is based on checks within the delivered XML and cross-checks on data submitted (B & D/D1b). In order to assure the proper functioning of the automatic quality checks, data sets B & D/D1b have to be already effectively released. See Reporting obligation for: (B) Information on zones and agglomerations (Article 6) and D D1b.
Process Flow	Air Quality Directive IPR - (C) Information on the assessment regime (Article 7) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However,

⁵ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<p>there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope.</p> <p>Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: QC on data flow C are based on checks within the delivered XML itself and cross-checks on data submitted (B & D/D1b). The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks, e.g.: failing cross-checks between C and D/D1b. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	<p>Envelope is closed.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
Exceptions to Normal Process Flow	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data. The presence of blockers will prevent (block) the effective release until the corresponding issues are corrected.</p>

3.1.5 Reporting obligation for: (C) Preliminary information on the assessment regime (Article 7)

3.1.5.1 General information

MS shall report to the commission regarding the on the assessment regime to be applied in the following calendar year for each pollutant within individual zones and agglomerations in accordance with Article 4 of Directive 2004/107/EC and Articles 5 and 9 of Directive 2008/50/EC.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/694 http://www.eionet.europa.eu/aqportal

3.1.5.2 Reporting Process

Name of Process	(C) Preliminary information on the assessment regime (Article 7)
Process Owner	Data Steward
Process Purpose	MS shall make available to the Commission information on the assessment regime they plan to apply in the following calendar year. In addition, information about designated competent authorities and bodies responsible for different aspects of quality assurance are provided under this data flow.
Process Scope	Refers to the way that MS are planning to monitor air quality within each of the air quality zones.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the information on the assessment regime data into the CDR as XML files containing the following information: <ul style="list-style-type: none"> ○ Provider (data type 'Contact Details') ○ Change documentation (data type 'Documentation of Change') ○ Information on zone (link to B) ○ Pollutant ○ Environmental objective (data type 'Environmental Objective') ○ Attainment of assessment threshold ○ Assessment threshold classification year ○ Documentation of the classification (web link) ○ Assessment type ○ Assessment type: Description ○ Individual assessment metadata, including station ID, location information (link to D) ○ Authority responsible for the assessment of air quality (data type 'Contact Details') ○ Authority responsible for the approval of measurement systems (data type 'Contact Details') ○ Authority responsible for ensuring the accuracy of measurements (data type 'Contact Details') ○ Authority responsible for the analysis of assessment method (data type 'Contact Details')

	<ul style="list-style-type: none"> ○ Authority responsible for the coordination of nation-wide quality assurance (data type 'Contact Details') ○ Authority responsible for the cooperation with other Member States and with the Commission (data type 'Contact Details') ● In case of resubmission, the justification document⁶ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> ● Country folders for (C) Preliminary information on the assessment regime (Article 7) exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the files. ● QC on data flow pC is based on checks within the delivered XML and cross-checks on data submitted (pB & D/D1b). In order to assure the proper functioning of the automatic quality checks, data sets pB & D/D1b have to be already effectively released.
Process Flow	<p>Air Quality Directive IPR - (C) Preliminary information on the assessment regime reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QA feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope.</p> <p>Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> ● Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header (example: For pB for 2019 (reporting deadline 31 December 2018) the reported year should be 2019). <p>QC validations: The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> ● failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), ● failure at XML schema validation, ● failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D,

⁶ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<ul style="list-style-type: none"> failure at crucial QC checks, e.g.: failing cross-checks between pC and D/D1b. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions c be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	Envelope is closed. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data. The presence of blockers will prevent (block) the effective release until the corresponding issues are corrected.

3.1.6 Reporting obligation for: (D) Information on the assessment methods (Articles 8 and 9) - for fixed and indicative measurements

3.1.6.1 General information

MS shall make available information on the assessment methods established for the purposes of air quality assessment and management.

Data flow D shall be reported as a retrospective report by 30 September of each year to confirm the assessment that the MS implemented for the assessment and management of air quality. The data flow may include metadata for the fixed or indicative measurements as assessment types, i.e. what are the characteristics of the station, or sampling point (combination of the station measuring one pollutant with one measurement technique and one feature of interest).

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/672 http://www.eionet.europa.eu/aqportal

3.1.6.2 Reporting Process

Name of Process	(D) Information on the assessment methods (Articles 8 and 9) - for fixed and indicative measurements
Process Owner	Data Steward
Process Purpose	Provide information on the fixed and indicative assessment methods i.e. what are the characteristics of the station, or sampling points (combination of the station measuring one pollutant with one measurement technique and one feature of interest).
Process Scope	Measurement data means information on the concentration or deposition level of a specific pollutant obtained by measurements. MS shall make available information on the fixed and indicative assessment methods established for the purposes of air quality assessment and management.

Process Input	<ul style="list-style-type: none"> The countries will deliver the data into the CDR as XML files containing information set out in Part D of Annex II of IPR Decision 2011/850/EU on the methods used for the demonstration and subtraction of exceedances attributable to natural sources or to winter-sanding or -salting applied within individual zones and agglomerations according to Articles 20 and 21 of Directive 2008/50/EC and on the quality and traceability of the assessment methods applied. (see Directive (2011/850/EU)) In case of resubmission, the justification document⁷ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> Country folders for (D) Information on the assessment methods (Articles 8 and 9) - for fixed and indicative measurements exist in the CDR. The MS Reporter has an Eionet account with the necessary access rights for uploading the files.
Process Flow	<p>Air Quality Directive IPR - (D) Information on the assessment methods (Articles 8 and 9) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope.</p> <p>Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: QC on data flow D are based on the XML delivered. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), failure at XML schema validation, failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, failure at crucial QC checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons</p>

⁷ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.
Process Output	Envelope is closed and the XML files will be published. Data released, will be ready to be used for AQ report and other EEA official products. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.

3.1.7 Reporting obligation for: (D1b) Information on the assessment methods (Articles 8 and 9) - for models and objective estimation

3.1.7.1 General information

MS shall make available information on the assessment methods established for the purposes of air quality assessment and management.

Data flow D1b shall be reported as a retrospective report by 30 September of each year to confirm the assessment that the MS implemented for the assessment and management of air quality. The data flow may include metadata for the modelling or objective estimation techniques when used for the air quality assessment.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/742 http://www.eionet.europa.eu/aqportal

3.1.7.2 Reporting Process

Name of Process	(D1b) Information on the assessment methods (Articles 8 and 9) - for models and objective estimation
Process Owner	Data Steward
Process Purpose	To collect the information on modelling and objective estimation when used for air quality assessment. Information should be shared by the MS to the Commission nine (9) months after the end of the calendar year the changes were made.
Process Scope	Modelling data means information on the concentration or deposition level of a specific pollutant obtained through numerical simulation of physical reality, while objective estimation data means information on the concentration or deposition level of a specific pollutant obtained through expert analysis and may include use of statistical tools. MS are required to report the information on models and objective estimation when used for air quality assessment. Detailed list of information is in Annex II, section (D) Information on the assessment methods (Articles 8 and 9).

Process Input	<p>Type of information reported: Data</p> <ul style="list-style-type: none"> • Assessment method metadata for models and objective estimation are composed of information elements grouped in a similar way to that for fixed and indicative measurements. The countries will deliver the data into the CDR as XML files containing information set out in Part D of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for modelling techniques and objective estimations. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Modelling techniques - the description of the modelling system and its inputs, the model validation through measurements, the coverage area and the documentation of data quality. ○ Objective estimations - the description of the estimation method and the documentation of data quality. • In case of resubmission, the justification document⁸ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> • Country folders for (D1b) Information on the assessment methods (Articles 8 and 9) - for models and objective estimation exist in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the files.
Process Flow	<p>Air Quality Directive IPR - (D1b) Information on the assessment methods (Articles 8 and 9) - for models and objective estimation reporting process follows the steps in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope.</p> <p>Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: QC on data flow D1b are based on the XML delivered. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period),

⁸ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<ul style="list-style-type: none"> • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	Envelope is closed and the XML files will be published. Data released, will be ready to be used for AQ report and other EEA official products. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.

3.1.8 Reporting obligation for: (E1a) Information on primary validated assessment data - measurements (Article 10)

3.1.8.1 General information

Under the IPR Decision Member States shall make available information on assessment data (data for all sampling points where measurement data is collected for the purpose of the assessment) from Assessment Methods declared at data flow D. The legal obligations for reporting are set out in Article 10 and Part E of Annex II of the 2011/850/EC Decision.

For assessment data stemming from fixed measurement, data flow E shall be reported in two forms;

- Primary validated assessment data (E1a) and
- Primary up-to-date assessment data (E2a).

Data flow E1a (Primary validated assessment data) shall be made available to the Commission for a full calendar year as complete time series no later than 9 months after the end of each calendar year (therefore, by 30 September of the next calendar year).

Member States shall also make available information on the quantification of the contribution from natural sources or from the winter-sanding or -salting of roads.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018 Although all data flows have one deadline per year, countries can report E1a whenever they have validated data available (Validated data can even refer to a period smaller than a year, i.e. three months, or six months, etc.. However, by the end of the deadline all data for the corresponding year should have been uploaded.).
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/673

3.1.8.2 Reporting Process

Name of Process	(E1a) Information on primary validated assessment data - measurements (Article 10)
Process Owner	Data Steward
Process Purpose	This data flow collects the information on primary validated assessment data on measurements. The data are validated and verified by MSs in a two-stage process: an automatic or semi-automatic validation (when the measurement is taken) and internal verification process based on data analysis done by authorities in each MS. Due to this verification process data may be delivered with 9 months delay.
Process Scope	This data consist of time series from sampling points (measurement locations) and are collected for the purpose of air quality assessments. This data are collected for Assessment Methods declared at data flow D.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part E of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)). More specifically, the following information should be reported: <ul style="list-style-type: none"> ○ Provider (data type 'Contact Details') ○ Documentation of change (data type 'Documentation of Change') ○ Version number ○ Pollutant ○ Unit of pollutant ○ Assessment Type ○ Assessment Method (Link to D) ○ Start and end date of sampling ○ Time units and number of units of sampling ○ Measurement value (including quantity of pollutant concentration levels attributed to natural sources and winter-sanding and -salting (where Articles 20 and 21 of Directive 2008/50/EC apply)) ○ Validity ○ Verification status • In case of resubmission, the justification document⁹ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> • Country folders for (E1a) Information on primary validated assessment data - measurements (Article 10) exist in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the files. • Data flows B, D, D1b and C should have been reported to the system before E1a.
Process Flow	Air Quality Directive IPR - (E1a) Information on primary validated assessment data - measurements (Article 10) reporting process follows the steps in section "Initial Delivery to

⁹ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<p>CDR” (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once ‘effectively released’, the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, by the resubmission deadline (15 December YYYY) (and unless invalidated by the reporter), the envelope is (automatically) finalized including the result of the automatic checks the final status of the envelope will be “Technically accepted”. No request for corrections will be triggered regardless of the errors or warnings found.</p> <p>For data verification, EEA provides tools to the reporters in order to confirm by the 15th of December the correctness and completeness of the submission.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML’s Reporting Header. <p>QC validations: The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks, e.g.: failing cross-checks between E1a and D. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. For data flow E1a, redeliver either the complete data set or the corrected part only. The new data will overwrite the previous ones and in general, E1a overwrites E2a.</p>
<p>Process Output</p>	<p>Envelope is closed and the XML files will be published. Data released, will be ready to be used for AQ report and other EEA official products.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
<p>Exceptions to Normal Process Flow</p>	<ul style="list-style-type: none"> • Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data. • If considered necessary, the reporter has the possibility to ‘invalidate’ the submission. By doing so, the final status of the envelope will be set to a status corresponding to “Correction request” and the data will not be used in the AQ report and other official EEA products. It will however continue to appear in the statistical viewers available at the AQ Portal and the EEA website until a resubmission correcting the errors is sent.

3.1.9 Reporting obligation for: (E1b) Information on primary validated assessment data -modelled (Article 10)

3.1.9.1 General information

Under the IPR Decision Member States shall make available information on assessment data (data for all sampling points where measurement data is collected for the purpose of the assessment) from Assessment Methods declared at data flow D1b. The legal obligations for reporting are set out in Article 10 and Part E of Annex II of the 2011/850/EC Decision.

For assessment data stemming from models or objective estimation, data flow E1b shall be made available as an assessment for a full calendar year by 30 September.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018 Although all data flows have one deadline per year, countries can report E1b whenever they have validated data available (However, by the end of the deadline all data for the corresponding year should have been uploaded.).
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/674 http://www.eionet.europa.eu/aqportal

3.1.9.2 Reporting Process

Name of Process	(E1b) Information on primary validated assessment data -modelled (Article 10)
Process Owner	Data Steward
Process Purpose	This data flow collects model results and objective estimation data, which are validated and verified. Results of air quality modelling are validated with measurements. Therefore data may be delivered with 9 months delay.
Process Scope	This data consists of model results and objective estimation collected for the purpose of air quality assessments. The data is collected for Assessment Methods declared at data flow D1b.
Process Input	Type of information reported: Data <ul style="list-style-type: none"> • File types for E1b data: XML, GeoTiff, ASCII grid, ESRI shapefiles • The countries will deliver the data into the CDR containing information set out in Part E of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)). More specifically, the following information should be reported: <ul style="list-style-type: none"> ○ Provider (data type ‘Contact Details’) ○ Documentation of change (data type ‘Documentation of Change’) ○ Version number ○ Pollutant ○ Unit of pollutant ○ Assessment Type

	<ul style="list-style-type: none"> ○ Assessment Method (Link to D) ○ Start and end date of sampling ○ Time units and number of units of sampling ○ Modelled value (data type ‘Spatial Observation’) (including quantity of pollutant concentration levels attributed to natural sources and winter-sanding and -salting (where Articles 20 and 21 of Directive 2008/50/EC apply)) ○ Validity ○ Verification status <ul style="list-style-type: none"> ● In case of resubmission, the justification document¹⁰ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> ● Country folders for (E1b) Information on primary validated assessment data - modelled (Article 10) exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the files. ● Data flows B, D, D1b and C should have been reported to the system before E1b.
Process Flow	<p>Air Quality Directive IPR - (E1b) Information on primary validated assessment data -modelled (Article 10) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once ‘effectively released’, the envelope cannot be revoked to draft mode.</p> <p>Once effectively released, the files will be reviewed by the EEA – ETC / ACM, based on results of checks which run outside CDR. In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be “Technically accepted” (keep in mind that this process is not yet implemented, there is work ongoing on database and processing of E1b data).</p> <p>Notes:</p> <ul style="list-style-type: none"> ● Upon envelope creation, the reporting year must be consistent with reporting year under the XML’s Reporting Header. <p>QC validations: The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqaqc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> ● failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), ● failure at XML schema validation,

¹⁰ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<ul style="list-style-type: none"> failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, failure at crucial QC checks. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. For data flow E1b, redeliver either the complete data set or the corrected part only.</p>
Process Output	Envelope is closed and the XML files will be published. Data released, will be ready to be used for AQ report and other EEA official products. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data. External checks: not implemented yet.

3.1.10 Reporting obligation for: (E2a) Information on primary up-to-date assessment data - measurements (Article 10)

3.1.10.1 General information

Under the IPR Decision Member States shall make available information on assessment data (data for all sampling points where measurement data is collected for the purpose of the assessment) from Assessment Methods declared at data flow D. The legal obligations for reporting are set out in Article 10 and Part E of Annex II of the 2011/850/EC Decision.

For assessment data stemming from fixed measurement, data flow E shall be reported in two forms;

- Primary validated assessment data (E1a) and
- Primary up-to-date assessment data (E2a).

Data flow E2a (Primary up-to-date assessment data) shall be made available on a provisional basis with the frequency appropriate to each pollutant assessment method and within a reasonable timeframe:

- For automatic methods, the data should be provided to EEA via ftp on an hourly basis.
- For non-automatic methods, the data should be provided within a reasonable timeframe.
- For both, incremental updates should be provided following further quality controls.

Reporting period	Continuous reporting On-going throughout year X, at a frequency appropriate to the assessment method and with a reasonable timeframe.
Responsible for reporting	National reporting contacts: UTD Data Providers (extranet-aqipr-utd)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/675 http://www.eionet.europa.eu/aqportal

3.1.10.2 Reporting Process

Name of Process	(E2a) Information on primary up-to-date assessment data -measurements (Article 10)
Process Owner	Data Steward
Process Purpose	Provision for reporting of UTD (up-to-date) information (hourly frequency of data) exchange for public covering information and alert thresholds.
Process Scope	<p>Primary up-to-date assessment data refers to primary data collected with the frequency appropriate to each pollutant assessment method and made available to the public without delay. It is necessary for the MS and the Commission to collect, exchange and assess up-to-date air quality information in order to understand better the impacts of air pollution and develop appropriate policies. In order to facilitate the handling and comparison of up-to-date air quality information, the up-to-date information should be made available to the Commission in the same standardized format as validated data within a reasonable timeframe.</p> <p>In the E2a data flow, countries are obliged to report hourly measurements of air quality indicators as soon as these measurements become available</p>
Process Input	E2a is a specific data flow, since it is not transmitted through CDR, but via FTP on an hourly basis. E2a files are XML files following the format of E1a (see Directive (2011/850/EU for details).
Process prerequisites	<ul style="list-style-type: none"> Data flows B, D, D1b and C should have been reported to the system before E2a.
Process Flow	<p>Air Quality Directive IPR - (E2a) Information on primary up-to-date assessment data - measurements (Article 10) reporting process is not supported by the CDR. E2a data are reported via FTP. FTP does not fetch the data manually but automatically.</p> <p>QC Validation: QC validations of UTD data are executed in a C# program, importing the data into the database, and not in CDR. More specifically, a console program (.exe) in C# moves the files around the folder structure, parses the XML, stores a copy in windows Azure, performs validations and inserts/updates the database. QC for data coming through FTP is not as sophisticated as in CDR, i.e. currently it only checks compliance of the XML to the XML schema and links with the meta-information (data flow D).</p> <p>E1a validated data overwrites E2a real-time data.</p>
Process Output	UTD E2a data set.

MS are obliged to collect all E2a measurements of the previous calendar year, correct any erroneous (i.e. verify) data and submit the corrected dataset in a CDR envelope as E1a. As soon as this dataset is collected from CDR, it will become the official European Dataset for the reference calendar year and will completely replace any UTD data previously reported through the E2a dataflow.

Reporting process for E2a data-flow is outlined in the figure below:

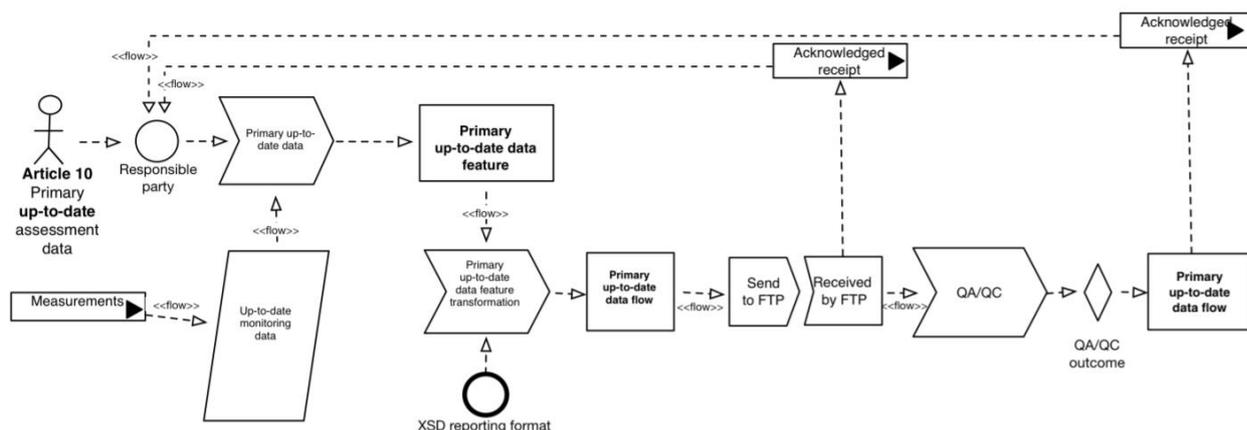


Figure 7: E2a data flow reporting process

3.1.11 Reporting obligation for: (G) Information on the attainment of environmental objectives (Article 12)

3.1.11.1 General information

Under the IPR Decision MS shall make available information on the attainment (or otherwise) of the environmental objectives set by Directives 2004/107/EC and 2008/50/EC. The information referred to in paragraph 1 shall be made available to the Commission for a full calendar year no later than nine (9) months after the end of each calendar year.

The information shall include the following:

- A declaration of attainment of all environmental objectives in each specific zone or agglomeration, including information on the exceedance of any applicable margin of tolerance;
- Where relevant, a declaration that the exceedance in the zone is attributable to natural sources;
- Where relevant, a declaration that the exceedance of a PM₁₀ air quality objective in the zone or agglomeration is due to the re-suspension of particulate matter following the winter-sanding or -salting of roads;

Where an exceedance occurs, the information made available shall also include information on the overall area exceeding and the number of people exposed in the exceedance area(s). In all cases, the information made available shall be consistent with:

- The zone delimitation made available in data flow B for AQ zones for the same calendar year
- The assessment regimes (assessment methods) declared within data flow C for the same zone and calendar year
- The aggregated validated assessment data derived from the primary validated data (data flow E) for the assessment methods set out by the previous point and pursuant to the agreed aggregation rules set (<http://www.eionet.europa.eu/aqportal/aggregation>). Aggregated validated assessment data is calculated by EEA, data flow F.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: Validated data flows – national providers (extranet-aqipr-val)
Reporting to	European Commission

	Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/679 http://www.eionet.europa.eu/aqportal

3.1.11.2 Reporting Process

Name of Process	(G) Information on the attainment of environmental objectives (Article 12)
Process Owner	Data Steward
Process Purpose	The MS have to report whether they exceeded environmental objectives or not during the previous year and give information related to that.
Process Scope	Attainment of environmental objectives in all zones and agglomerations should be reported.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part G of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for the attainment of environmental objectives. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Provider (data type ‘Contact Details’) ○ Reporting year ○ Change documentation (data type ‘Documentation of Change’) ○ Information on zone (link to B) ○ Exceedance situation (data type ‘Exceedance Situation’) ○ Pollutant ○ Assessment information (link to D) ○ Exceedance of the environmental objective (*) ○ Exceedance of the environmental objective plus margin of tolerance (*) ○ Exceedance taking into account natural sources (*) ○ Exceedance taking into account winter sanding or salting (*) ○ Exceedance situation after consideration of natural contributions and winter sanding or salting (data type ‘Exceedance Situation’). ○ Total numbers of exceedances (according to *) • In case of resubmission, the justification document¹¹ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> • Country folders for (G) Information on the attainment of environmental objectives (Article 12) exist in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the files. • Data flows B, D, D1b, C and E1a/E1b should have been already effectively released before data flow G.
Process Flow	Air Quality Directive IPR - (G) Information on the attainment of environmental objectives (Article 12) reporting process follows the steps outlined in section "Initial Delivery to CDR"

¹¹ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<p>(Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope.</p> <p>Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: QC on data flow G are based on checks within the delivered XML itself and cross-checks on data submitted (B, C, D/D1b, E1a/E1b) and correctly processed in EEA's Content Registry. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks, e.g.: failing cross-checks between G and C. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	<p>Envelope is closed.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
Exceptions to Normal Process Flow	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.</p>

3.1.12 Reporting obligation for: (H) Information on air quality plans (Article 13)

3.1.12.1 General information

In accordance with the procedure referred to in Article 5 of IPR Decision 2011/850/EU, Member States shall make available the information set out in Part H of Annex II to this Decision on air quality plans as required by Article 23 of Directive 2008/50/EC including:

- The mandatory elements of the air quality plan as listed pursuant to Article 23 of Directive 2008/50/EC in Section A of Annex XV to Directive 2008/50/EC;
- References to where the public can have access to regularly updated information on the implementation of the air quality plans.

The information shall be made available to the Commission without delay, and no later than two (2) years after the end of the calendar year in which the first exceedance was observed.

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
Responsible for reporting	National reporting contacts: AQ Plans and Programmes - national providers (extranet-aqipr-h2k)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/680 http://www.eionet.europa.eu/aqportal

3.1.12.2 Reporting Process

Name of Process	(H) Information on air quality plans (Article 13)
Process Owner	Data Steward
Process Purpose	In this dataflow, MS have to provide the information on Air quality plans which is mandatory in case there were exceedances.
Process Scope	Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit or target value, plus any relevant margin of tolerance in each case, MS shall ensure that air quality plans are established in order to achieve the related limit or target value (see Annexes XI and XIV in Directive 2008/50/EC). Where air quality plans must be prepared or implemented in respect of several pollutants, MS shall, where appropriate, prepare and implement integrated air quality plans covering all pollutants concerned including information about exceedances, if any.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part H of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for air quality plans. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Provider (data type 'Contact Details') ○ Change documentation (data type 'Documentation of Change') ○ Air quality plan: code ○ Air quality plan: name ○ Air quality plan: reference year of first exceedance ○ Competent authority (data type 'Contact Details') ○ Air quality plan: status ○ Air quality plan: pollutants covered ○ Air quality plan: date of official adoption ○ Air quality plan: timetable of implementation

	<ul style="list-style-type: none"> ○ Reference to air quality plan (web link) ○ Reference to implementation (web link) ○ Relevant publication (data type 'Publication') ○ Code of the relevant exceedance situation(s) (link to G) <ul style="list-style-type: none"> ● In case of resubmission, the justification document¹² (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> ● Country folders for (H) Information on air quality plans (Article 13) exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the files. ● Data flow G has already been successfully delivered.
Process Flow	<p>Air Quality Directive IPR - (H) Information on air quality plans (Article 13) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope. System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored. In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files. If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> ● Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: Data flow G should have already been successfully delivered before reporting data flow H. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> ● failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), ● failure at XML schema validation, ● failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, ● failure at crucial QC checks. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions could be accompanied by a justification explaining the</p>

¹² Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.
Process Output	Envelope is closed. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.

3.1.13 Reporting obligation for: (I) Information on source apportionment (Article 13)

3.1.13.1 General information

In accordance with the procedure referred to in Article 5 of IPR Decision 2011/850/EU, Member States shall make available the information set out in Part I of Annex II to this Decision on air quality plans. For details, please refer to General information section of the Reporting obligation for: (H) Information on air quality plans (Article 13).

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
Responsible for reporting	National reporting contacts: AQ Plans and Programmes - national providers (extranet-aqiprh2k)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/681 http://www.eionet.europa.eu/aqportal

3.1.13.2 Reporting Process

Name of Process	(I) Information on source apportionment (Article 13)
Process Owner	Data Steward
Process Purpose	In this dataflow, MS have to provide the information about the exceedances' source allocation (i.e. local contribution, external contribution, emission from external sources, etc.).
Process Scope	Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit or target value, plus any relevant margin of tolerance in each case, MS shall report the sources of the exceedances.
Process Input	Type of information reported: Regulatory <ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part I of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for source apportionment. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Code(s) of exceedance situation (link to G) ○ Reference year ○ Regional background: total ○ Regional background: from within Member State ○ Regional background: transboundary

	<ul style="list-style-type: none"> ○ Regional background: natural ○ Urban background increment: total ○ Urban background increment: traffic ○ Urban background increment: industry including heat and power production ○ Urban background increment: agriculture ○ Urban background increment: commercial and residential ○ Urban background increment: shipping ○ Urban background increment: off-road mobile machinery ○ Urban background increment: natural ○ Urban background increment: transboundary ○ Local increment: total ○ Local increment: traffic ○ Local increment: industry including heat and power production ○ Local increment: agriculture ○ Local increment: commercial and residential ○ Local increment: shipping ○ Local increment: off-road mobile machinery ○ Local increment: natural ○ Local increment: transboundary <ul style="list-style-type: none"> ● In case of resubmission, the justification document¹³ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
<p>Process prerequisites</p>	<ul style="list-style-type: none"> ● Country folders for (I) Information on source apportionment (Article 13) exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the files. ● Data flows G and H have already been successfully delivered.
<p>Process Flow</p>	<p>Air Quality Directive IPR - (I) Information on source apportionment (Article 13) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <ol style="list-style-type: none"> 11. Completes the delivery and releases the envelope. System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QA feedback already stored. In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files. If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode. 12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system

¹³ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<p>In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be “Technically accepted”.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML’s Reporting Header. <p>QC validations: Data flow G and H should have already been successfully delivered before reporting data flow I. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/aq/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks. <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions could be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	<p>Envelope is closed.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
Exceptions to Normal Process Flow	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.</p>

3.1.14 Reporting obligation for: (J) Information on the scenario for the attainment year (Article 13)

3.1.14.1 General information

In accordance with the procedure referred to in Article 5 of IPR Decision 2011/850/EU, Member States shall make available the information set out in Part J of Annex II to this Decision on air quality plans. For details, please refer to General information section of the Reporting obligation for: (H) Information on air quality plans (Article 13).

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
Responsible for reporting	National reporting contacts: AQ Plans and Programmes - national providers (extranet-aqipr-h2k)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/682 http://www.eionet.europa.eu/aqportal

3.1.14.2 Reporting Process

Name of Process	(J) Information on the scenario for the attainment year (Article 13)
------------------------	--

Process Owner	Data Steward
Process Purpose	In this dataflow, MS have to report the scenarios and the results in order to reach the attainment i.e. when the station is not going to exceed the limit values on the environmental objective.
Process Scope	Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit or target value, plus any relevant margin of tolerance in each case, MS shall provide Commission with scenarios along with their results about when goals are going to be attained.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part J of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for the scenario of the attainment year. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Code of exceedance situation (link to G) ○ Code of scenario ○ Code of air quality plan (link to H) ○ Reference year for which projections are developed ○ Reference year from which projections are started ○ Source apportionment (link to I) ○ Relevant publication (data type 'Publication') ○ Baseline: description of the emission scenario ○ Baseline: total emissions in the relevant spatial unit ○ Baseline: included measures (link to K) ○ Baseline: expected concentration levels in the projection year ○ Baseline: expected number of exceedances in the projection year ○ Projection: description of the emission scenario ○ Projection: total emissions in the relevant spatial unit ○ Projection: included measures (Link to K) ○ Projection: expected concentration levels in the projection year ○ Projection: expected number of exceedances in the projection year • In case of resubmission, the justification document¹⁴ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> • Country folders for (J) Information on the scenario for the attainment year (Article 13) exist in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the files. • Data flow H and I have already been successfully delivered.
Process Flow	Air Quality Directive IPR - (J) Information on the scenario for the attainment year (Article 13) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:

¹⁴ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

	<p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QC feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once ‘effectively released’, the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA’s system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be “Technically accepted”.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Upon envelope creation, the reporting year must be consistent with reporting year under the XML’s Reporting Header. <p>QC validations: Data flows H and I should have already been successfully delivered before reporting data flow I. The full list of the QA checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqagc/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> • failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), • failure at XML schema validation, • failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, • failure at crucial QC checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions could be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>
Process Output	<p>Envelope is closed.</p> <p>In case of resubmission, the justification document will be published in the folder as well.</p>
Exceptions to Normal Process Flow	<p>Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.</p>

3.1.15 Reporting obligation for: (K) Information on measures (Articles 13 and 14)

3.1.15.1 General information

In accordance with the procedure referred to in Article 5 of IPR Decision 2011/850/EU, Member States shall make available the information set out in Part K of Annex II to this Decision on air quality plans. For details, please refer to General information section of the Reporting obligation for: (H) Information on air quality plans (Article 13).

Reporting period	Reporting frequency for this obligation is 12 months (annually) with the next report due: 31/12/2018
-------------------------	--

Responsible for reporting	National reporting contacts: AQ Plans and Programmes - national providers (extranet-aqip-h2k)
Reporting to	European Commission Other clients using this reporting: European Environment Agency
Useful links	http://rod.eionet.europa.eu/obligations/683 http://www.eionet.europa.eu/aqportal

3.1.15.2 Reporting Process

Name of Process	(K) Information on measures (Articles 13 and 14)
Process Owner	Data Steward
Process Purpose	In this data flow, MS should provide information on measures which are taken regarding the air quality plans.
Process Scope	Where, in given zones or agglomerations, the levels of pollutants in ambient air exceed any limit or target value, plus any relevant margin of tolerance in each case, MS shall provide Commission with further details about the measures that should be taken to implement the air quality plans.
Process Input	<ul style="list-style-type: none"> • The countries will deliver the data into the CDR as XML files containing information set out in Part K of Annex II of IPR Decision 2011/850/EU (see Directive (2011/850/EU)) for information about the measures. In general, the following information should be reported: <ul style="list-style-type: none"> ○ Code(s) of exceedance situation (link to G) ○ Code of air quality plan (link to H) ○ Code of evaluation scenario (link to J) ○ Measure: code ○ Measure: name ○ Measure: description ○ Measure: classification ○ Measure: type ○ Measure: administrative level ○ Measure: time scale ○ Measure: affected source sector ○ Measure: spatial scale ○ Estimated implementation costs (where available) ○ Planned implementation: start and end date ○ Date when the measure is planned to take full effect ○ Other key implementation dates ○ Indicator for monitoring progress ○ Reduction in annual emissions due to applied measure ○ Expected impact in level of concentrations in the projection year (where available)

	<ul style="list-style-type: none"> ○ Expected impact in number of exceedances in the projection year (where available) ● In case of resubmission, the justification document¹⁵ (usually in .PDF) could be uploaded together with the corrected data files in the CDR.
Process prerequisites	<ul style="list-style-type: none"> ● Country folders for (K) Information on measures (Articles 13 and 14) exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the files. ● Data flow H, I and J have already been successfully delivered.
Process Flow	<p>Air Quality Directive IPR - (K) Information on measures (Articles 13 and 14) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 10). However, there are some deviations from the standard steps that the reporter follows, which are described below:</p> <p>11. Completes the delivery and releases the envelope.</p> <p>System runs automatically quality assessment of the XML files uploaded. The system deletes automatically QA feedback already stored.</p> <p>In case of blocking errors, the envelope is automatically revoked to draft mode and the reporter has to fix the issues before uploading the files.</p> <p>If no blocking errors are observed, the data files are considered to be effectively released and a confirmation will be posted in the envelope as well. Once 'effectively released', the envelope cannot be revoked to draft mode.</p> <p>12. Once effectively released, the CDR envelope is (automatically) finalized including the result of the automatic checks. The data will be imported in EEA's system</p> <p>In case of errors detected, a request for corrections will be posted in the envelope. Else, the envelope will be considered to be "Technically accepted".</p> <p>Notes:</p> <ul style="list-style-type: none"> ● Upon envelope creation, the reporting year must be consistent with reporting year under the XML's Reporting Header. <p>QC validations: Data flows H, I and J should have already been successfully delivered before reporting data flow K. The full list of the QC checks applied can be found in the Data Dictionary: http://dd.eionet.europa.eu/vocabulary/ag/cdrqac/view. However, concerning the blocking issues, pertain to the following categories:</p> <ul style="list-style-type: none"> ● failure at envelope checks, e.g.: wrong envelope (start) year, wrong Reporting Header (e.g. missing reporting period), ● failure at XML schema validation, ● failure at xlink references, e.g.: wrongly specified code list URLs, failing cross-checks between C and D, ● failure at crucial QC checks <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created. All resubmissions must be accompanied by a justification explaining the reasons for resubmitting as well as the modifications / corrections done. In general it is advised to redeliver the whole data set and not only the modified/corrected part.</p>

¹⁵ Unofficial deadline for re-submissions established to encourage countries to check and correct their data in time and solve urgent issues, before they have to send justification every time they correct their data.

Process Output	Envelope is closed. In case of resubmission, the justification document will be published in the folder as well.
Exceptions to Normal Process Flow	Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data.

3.2 Water Framework Directive (WFD)

The **Water Framework Directive** (shortly WFD) establishes a legal framework to protect and restore clean water across Europe and ensure its long-term, sustainable use. (Its official title is Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000.) The directive establishes an innovative approach for water management based on river basins, the natural geographical and hydrological units and sets specific deadlines for Member States to protect aquatic ecosystems. The directive addresses inland surface waters, transitional waters, coastal waters and groundwater. It establishes several innovative principles for water management, including public participation in planning and the integration of economic approaches, including the recovery of the cost of water services.

3.2.1 Brief Profile

WFD sets out a list of Reporting Obligations, which EU MS should take into account and manage in order to comply with the corresponding Directive. The list of the Reporting Obligations under WFD is outlined below:

- [Water Framework Directive - Programmes of Measures - 2012 Reporting \[terminated\]](#) [Article 11]
- [Water Framework Directive - Characterisation of River Basin Districts \[terminated\]](#) [Article 5]
- [Water Framework Directive - Monitoring Programmes \[terminated\]](#) [Article 8]
- [Water Framework Directive - River Basin Management Plans - 2010 Reporting \[terminated\]](#) [Article 13]
- [Water Framework Directive - Transposition in national legislation \[terminated\]](#) [Article 24 & 25]
- [Water Framework Directive - River Basin Districts and Competent Authorities \[terminated\]](#) [Article 3]
- [Water Framework Directive - River Basin Management Plans - 2016 Spatial data](#) [Article 13]
- [Water Framework Directive - River Basin Management Plans - 2016 Reporting](#) [Article 13]
- [Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data](#) [Article 13]
- [Water Framework Directive - River Basin Management Plans - 2016 RBD XML data](#) [Article 13]
- [Water Framework Directive - Programmes of Measures - 2018 Reporting \[terminated\]](#) [Article 15(3)]
- [Water Framework Directive - Programmes of Measures - 2018 RBD XML data](#) [Article 15(3)]

Some of the reporting obligations are already terminated. The business processes related to the active reporting obligations are presented in the following sections.

3.2.2 Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 Reporting

3.2.2.1 General information

The obligation “Water Framework Directive - River Basin Management Plans - 2016 Reporting” is also known as the EC Water Reporting Obligation and constitutes an **Eionet core data flow**. The deliverables of this obligation – the management plan and any accompanying documents - aim at providing a framework for protecting and enhancing the water environment and outlines the actions that need to be taken by each MS in order to do so.

For operational purposes, the following obligations are part on the 2016 WFD RBMP reporting process:

- Water Framework Directive - River Basin Management Plans - 2016 Spatial data
- Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data
- Water Framework Directive - River Basin Management Plans - 2016 RBD XML data

Regarding the upload of files in terms of the WFD the following sequence must be followed to ensure proper functioning of the automatic quality checks:



Figure 8: Reporting order for WFD

The business processes behind these reporting obligations / data flows which constitute part of the “Water Framework Directive - River Basin Management Plans - 2016 Reporting” will be analyzed later, in the corresponding sections of the document.

Reporting period	Reporting frequency for this obligation is 72 months with the next report due: 22/03/2022
-------------------------	---

Responsible for reporting	National reporting coordinators: WISE - National reporting coordinators (extranet-wise-nfp) ¹⁶ National reporting contacts: Water Framework Directive - Data reporters (extranet-wfd-data) ¹⁷
Reporting to	European Commission Other clients using this reporting: European Environment Agency, EFTA Surveillance Authority
Useful links	http://rod.eionet.europa.eu/instruments/516

3.2.2.2 Reporting Process

Name of Process	Water Framework Directive - River Basin Management Plans - 2016 Reporting
Process Owner	Data Steward
Process Purpose	Help EU MS comply with WFD concerning the management plan and assessment methodologies reporting.
Process Scope	The scope of this process is to deliver and publish in human readable format in the CDR, the RBMP document, which the MS shall ensure that it is produced for each river basin district lying entirely within their territory. The river basin management plan sets out what the MS will do to tackle the pressures affecting its water bodies in order to improve their condition.
Process Input	<ul style="list-style-type: none"> • RBMP PDF files (in national language) in which the following information is included: <ul style="list-style-type: none"> ○ Description of the characteristics of the RBDs; ○ Summary of significant pressures and impact of human activity on the status of water bodies; ○ Identification and mapping of protected areas; ○ Map of the monitoring networks and a presentation in map form of the results of the monitoring programmes carried out under those provisions; ○ List of the environmental objectives; ○ Summary of the economic analysis of water use; ○ Summary of the programme or programmes of measures adopted; ○ Register of any more detailed programmes and management plans for the RBD dealing with particular sub-basins, sectors, issues or water types, together with a summary of their contents; ○ Summary of the public information and consultation measures taken, their results and the changes to the plan made as a consequence; ○ List of competent authorities; ○ Contact points and procedures for obtaining the background documentation and information. • Background documents as PDF files (in national language), if available.
Process prerequisites	<ul style="list-style-type: none"> • Country folders for WFD, for RBMP, PoM (to be clarified) and background documents exist in the CDR. • In case a MS is not able to report all data as required in the WFD, an explanatory note must be submitted, outlining the data that cannot be submitted and explaining the reasons why. This document (Annex 0) must be submitted to WFD helpdesk via email

¹⁶ <http://rod.eionet.europa.eu/contacts?roleId=extranet-wise-nfp>

¹⁷ <http://rod.eionet.europa.eu/contacts?roleId=extranet-wise-nfp>

	<p>at least one month before the reporting in word format and in English (see details on the flow in reference 0 under the Exceptions to Normal Process flow section).</p> <ul style="list-style-type: none"> • The MS Reporter has an Eionet account with the necessary access rights for uploading the national delivery.
Process Flow	<p>Water Framework Directive - River Basin Management Plans - 2016 Reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>Since the files uploaded for this reporting obligation are not XML or GML (usually PDF format), QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
Process Output	<p>Envelope is closed and the following files are published:</p> <ul style="list-style-type: none"> • RBMP PDF file • PoM PDF file (to be clarified) • Background data (if any)
Exceptions to Normal Process Flow	<p>Annex 0: When a MS is not able to report all required data, an explanatory note is sent to the WFD helpdesk via email at least one month before the reporting (see in section "Initial Delivery to CDR". In this note, the data that the MS cannot report along with the reasons why are included. Annex 0 might refer either to national data that cannot be reported or to RBD data.</p> <p>Reporting of Annex 0 consists of the following steps:</p> <ol style="list-style-type: none"> Reporter sends via email Annex 0 to WFD helpdesk (wfd.helpdesk@eionet.europa.eu). EC representative reviews the note and provides feedback to the reporter about it within a week. <p>Note: This early note allows EC to handle QA/QC processes for the rest of the WFD related obligations, since no QA/QC process is required for the RBMP PDF files.</p> Reporter uploads the note with the feedback in the system along with the RBDSUCA data (see Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data) in case the file is filled in at national level or along with the relevant River Basin District folder (see Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 RBD XML data) in case the file is filled in at RBD level.

3.2.3 Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 Spatial data

3.2.3.1 General information

This reporting obligation has been created for technical reasons. It identifies the deliveries of national spatial data sets under the "Water Framework Directive - River Basin Management Plans - 2016 Reporting" obligation and constitutes an **Eionet core data flow**.

Reporting period	Reporting frequency for this obligation is 72 months with the next report due: 22/03/2022
Responsible for reporting	National reporting coordinators: WISE - National reporting coordinators (extranet-wise-nfp) National reporting contacts: Water Framework Directive - Data reporters (extranet-wfd-data)
Reporting to	European Commission Other clients using this reporting: European Environment Agency, EFTA Surveillance Authority
Useful links	http://rod.eionet.europa.eu/instruments/516

3.2.3.2 Reporting Process

Name of Process	Water Framework Directive - River Basin Management Plans - 2016 Spatial data
Process Owner	Data Steward
Process Purpose	Help EU MS comply with WFD concerning the reporting of spatial data.
Process Scope	The scope of this process is to provide spatial data in order to support the reporting of the River Basin Management plans. This information should be reported to the system before the reporting of the structured data about the RBMP (Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 RBD XML data – to be confirmed).
Process Input	<ul style="list-style-type: none"> • Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schemaset/WFD2016 • XML and GML files for spatial data about the following entities, in national level: <ul style="list-style-type: none"> ○ RiverBasinDistrict ○ GroundWaterBodyHorizon ○ GroundWaterBody ○ MonitoringSite ○ ProtectedAreaLine ○ ProtectedAreaPoint ○ ProtectedArea ○ SubUnit ○ SurfaceWaterBodyCentreline ○ SurfaceWaterBodyLine ○ SurfaceWaterBody
Process prerequisites	<ul style="list-style-type: none"> • In order to assure the proper functioning of the automatic QA/QC, the RBPM and background documents (if any) should have already been uploaded in the CDR – see Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 Reporting.

	<ul style="list-style-type: none"> • Country folders for WFD and for national spatial data exist in the CDR. • In case a MS is not able to report all data as required in the WFD, an explanatory note must be submitted, outlining the data that cannot be submitted and explaining the reasons why. This document (Annex 0) must be submitted to WFD helpdesk via email at least one month before the reporting. • The MS Reporter has an Eionet account with the necessary access rights for uploading the national delivery.
Process Flow	<p>Water Framework Directive - River Basin Management Plans - 2016 Spatial data reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>QA validations: Reporter runs the following automatic QA validations to assess the quality of the files / data reported:</p> <ul style="list-style-type: none"> • Schema checks • Within schema checks • Cross schema checks • Statistics • Registry <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
Process Output	Envelope is closed and GML & XML files are released.
Exceptions to Normal Process Flow	<ul style="list-style-type: none"> • Quality assessment failure: In cases when the QA assessment process failed, the reporter should wait several hours (indicatively eight (8) hours) and then select to re-run the automatic QA assessment. If the second request happens for exactly the same files as the first one, the results of the previous attempt will have been stored in the server and will be delivered very quickly. • Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors (or only errors related to Annex 0) exist and resubmits the data. • Blocking errors in Step 11: If blocking errors are detected in Step 11, a manual review by an EC representative takes place. EC representative manually reviews errors detected by the system. <ul style="list-style-type: none"> ○ If all errors are related to Annex 0, a manual acceptance takes place and the EC representative (reviewer) releases the envelope. A confirmation of receipt through the system, signifies acceptance of the data. ○ If not all errors are related to Annex 0, EC representative (reviewer) prepares a feedback document regarding the unsuccessful delivery and sends it back to the reporter. The status of the envelope remains draft and the reporter has to resubmit the files. (to be clarified) <p>See Figure 9: EU Registry is streaming the reporting of Industrial Emissions for details in the process.</p>

3.2.4 Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data

3.2.4.1 General information

This reporting obligation has been created for technical reasons. It identifies the RBDSUCA (River Basin Districts, Sub-units and Competent Authorities) XML deliveries under the "Water Framework Directive - River Basin Management Plans - 2016 Reporting" obligation and constitutes an **Eionet core data flow**.

Along with the RBDSUCA data, the Annex 0 (including the feedback received by the EC) note for national level is also reported by the MS as part of this business process in case the MS was not able to report some of the data required by the WFD.

Reporting period	Reporting frequency for this obligation is 72 months with the next report due: 22/03/2022
Responsible for reporting	National reporting coordinators: WISE - National reporting coordinators (extranet-wise-nfp) National reporting contacts: Water Framework Directive - Data reporters (extranet-wfd-data)
Reporting to	European Commission Other clients using this reporting: European Environment Agency, EFTA Surveillance Authority
Useful links	http://rod.eionet.europa.eu/instruments/516

3.2.4.2 Reporting Process

Name of Process	Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data
Process Owner	Data Steward
Process Purpose	Help EU MS comply with WFD concerning the reporting of RBDSUCA (River Basin Districts, Sub-units and Competent Authorities) data.
Process Scope	Report the River Basin Districts along with information about the competent authorities involved in the implementation of the WFD for each RBD and the sub-units into which the RBD has been divided (if any). Furthermore, publish Annex 0 (including the feedback received by the EC) referring to national level.
Process Input	<ul style="list-style-type: none"> Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schemaset/WFD2016 XML file for RBDSUCA (River Basin Districts, Sub-units and Competent Authorities) in national level. Annex 0 (usually in PDF format) file, including apart from the data that the MS was not able to report, the feedback from the EC.
Process prerequisites	<ul style="list-style-type: none"> In order to assure the proper functioning of the automatic QA/QC, the spatial data should have already been uploaded in the CDR – see Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 Spatial data. Country folders for WFD and for national RBDSUCA data exist in the CDR. In case a MS is not able to report all data as required in the WFD, an explanatory note must be submitted, outlining the data that cannot be submitted and explaining the reasons why. This document (Annex 0) must be submitted to WFD helpdesk via email at least one month before the reporting. The MS Reporter has an Eionet account with the necessary access rights for uploading the national delivery.

<p>Process Flow</p>	<p>Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). QA validations will be executed only for the XML and GML files.</p> <p>QA validations: Reporter runs the following automatic QA validations to assess the quality of the files / data reported:</p> <ul style="list-style-type: none"> • Schema checks • Within schema checks • Cross schema checks • Statistics • Registry <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
<p>Process Output</p>	<p>Envelope is closed and XML files along with Annex 0 file (if exists) are released.</p>
<p>Exceptions to Normal Process Flow</p>	<ol style="list-style-type: none"> I. Quality assessment failure: In cases when the QA assessment process failed, the reporter should wait several hours (indicatively eight (8) hours) and then select to re-run the automatic QA assessment. If the second request happens for exactly the same files as the first one, the results of the previous attempt will have been stored in the server and will be delivered very quickly. II. Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors (or only errors related to Annex 0) exist and resubmits the data. III. Blocking errors in Step 11: If blocking errors are detected in Step 11, a manual review by an EC representative takes place. EC representative manually reviews errors detected by the system. <ul style="list-style-type: none"> • If all errors are related to Annex 0, a manual acceptance takes place and the EC representative (reviewer) releases the envelope. A confirmation of receipt through the system, signifies acceptance of the data. • If not all errors are related to Annex 0, EC representative (reviewer) prepares a feedback document regarding the unsuccessful delivery and sends it back to the reporter. The status of the envelope remains draft and the reporter has to resubmit the files. (to be clarified) <p>See Figure 9: EU Registry is streaming the reporting of Industrial Emissions for details in the process.</p>

3.2.5 Reporting obligation for: Water Framework Directive - River Basin Management Plans - 2016 RBD XML data

3.2.5.1 General information

This reporting obligation has been created for technical reasons. It identifies the deliveries of RBD-level data under the "Water Framework Directive - River Basin Management Plans - 2016 Reporting" obligation and constitutes an **Eionet core data flow**.

Along with the RBD XML data, the Annex 0 (including the feedback received by the EC) note for each RBD is also reported by the MS as part of this business process in case the MS was not able to report some of the data required by the WFD.

Reporting period	Reporting frequency for this obligation is 72 months with the next report due: 22/03/2022
Responsible for reporting	National reporting coordinators: WISE - National reporting coordinators (extranet-wise-nfp) National reporting contacts: Water Framework Directive - Data reporters (extranet-wfd-data)
Reporting to	European Commission Other clients using this reporting: European Environment Agency, EFTA Surveillance Authority
Useful links	http://rod.eionet.europa.eu/instruments/516

3.2.5.2 Reporting Process

Name of Process	Water Framework Directive - River Basin Management Plans - 2016 RBD XML data
Process Owner	Data Steward
Process Purpose	Help EU MS comply with WFD concerning the reporting of RBD data.
Process Scope	Report data related to Groundwater and Surface Water Bodies, concerning their current status, impacts, pressures, data monitored, assessment methods and programmes of measures that will be put in place in order to improve the current status. Furthermore, publish Annex 0 (including the feedback received by the EC) per RBD.
Process Input	<ul style="list-style-type: none"> • Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schemaset/WFD2016 • XML files related to the following information: <ul style="list-style-type: none"> ○ Groundwater Bodies ○ Groundwater Bodies Methodologies ○ Surface Water Bodies ○ Surface Water Methodologies ○ Monitoring ○ Programmes of measures • Annex 0 (usually in PDF format) file per RBD level, including apart from the data that the MS was not able to report, the feedback from the EC.
Process prerequisites	<ul style="list-style-type: none"> • In order to assure the proper functioning of the automatic QA/QC, the RBDSUCA data should have already been uploaded in the CDR – see Reporting obligation for:

	<p>Water Framework Directive - River Basin Management Plans - 2016 RBDSUCA XML data.</p> <ul style="list-style-type: none"> • Country folders for WFD and for each River Basin District exist in the CDR. • In case a MS is not able to report all data as required in the WFD, an explanatory note must be submitted, outlining the data that cannot be submitted and explaining the reasons why. This document (Annex 0) must be submitted to WFD helpdesk via email at least one month before the reporting. • The MS Reporter has an Eionet account with the necessary access rights for uploading the national delivery.
<p>Process Flow</p>	<p>Water Framework Directive - River Basin Management Plans - 2016 RBD XML data reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). QA validations will be executed only for the XML and GML files.</p> <p>QA validations: Reporter runs the following automatic QA validations to assess the quality of the files / data reported:</p> <ul style="list-style-type: none"> • Schema checks • Within schema checks • Cross schema checks • Statistics • Registry <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
<p>Process Output</p>	<p>Envelope is closed and XML files along with Annex 0 file (if exists) are released.</p>
<p>Exceptions to Normal Process Flow</p>	<ol style="list-style-type: none"> I. Quality assessment failure: In cases when the QA assessment process failed, the reporter should wait several hours (indicatively eight (8) hours) and then select to re-run the automatic QA assessment. If the second request happens for exactly the same files as the first one, the results of the previous attempt will have been stored in the server and will be delivered very quickly. II. Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors (or only errors related to Annex 0) exist and resubmits the data. III. Blocking errors in Step 11: If blocking errors are detected in Step 11, a manual review by an EC representative takes place. EC representative manually reviews errors detected by the system. <ul style="list-style-type: none"> • If all errors are related to Annex 0, a manual acceptance takes place and the EC representative (reviewer) releases the envelope. A confirmation of receipt through the system, signifies acceptance of the data. • If not all errors are related to Annex 0, EC representative (reviewer) prepares a feedback document regarding the unsuccessful delivery and sends it back to the reporter. The status of the envelope remains draft and the reporter has to resubmit the files. (to be clarified) <p>See Figure 9: EU Registry is streaming the reporting of Industrial Emissions for details in the process.</p>

3.2.6 Reporting obligation for: Water Framework Directive - Programmes of Measures - 2018

3.2.6.1 General information

This reporting obligation has been created for technical reasons. It identifies the deliveries of RBD-level data under the "Water Framework Directive - River Basin Management Plans - 2016 Reporting" obligation and constitutes an **Eionet core data flow**.

Reporting period	Reporting frequency for this obligation is 72 months with the next report due: 22/12/2018
Responsible for reporting	<ul style="list-style-type: none"> • National reporting coordinators: WISE - National reporting coordinators (extranet-wise-nfp) • National reporting contacts: Water Framework Directive - Data reporters (extranet-wfd-data)
Reporting to	European Commission Other clients using this reporting: EFTA Surveillance Authority
Useful links	http://rod.eionet.europa.eu/instruments/516

3.2.6.2 Reporting Process

Name of Process	Water Framework Directive - Programmes of Measures - 2018
Process Owner	Data Steward
Process Purpose	Report the progress of the implementation of the planned programme of measures.
Process Scope	<p>Within three years of the publication of each Water Framework Directive River Basin Management Plan or its update, MS shall submit an interim report describing the progress in the implementation of the planned programme of measures.</p> <p>More specifically, MS are expected to report on:</p> <ul style="list-style-type: none"> • The progress on implementation of the planned measures as well as the overall progress and the main obstacles encountered in this process; • Updated replies to the targeted questions on measures as presented in the WISE reporting of the second RBMPs; • The cost of measures; • Updated indicator of the gap to good status, if available; • The Key Types of Measures indicators as defined in the WISE reporting of the second RBMPs. <p>MS are also expected to provide background documents on which they explain in detail how the information reported in a schema element was obtained.</p>
Process Input	<ul style="list-style-type: none"> • Schemas and documents: uploaded in the Data Dictionary (DD) system: <ul style="list-style-type: none"> ○ dd.eionet.europa.eu/schemaset/WFD_PoM_2018/ ○ http://dd.eionet.europa.eu/schemas/WFD2016/WFDCommon_2016.xsd • XML files related to the following information: <ul style="list-style-type: none"> ○ Progress ○ TargetedQ ○ SignificantPressureSubstanceFailing ○ KeyTypeMeasureIndicator

	<ul style="list-style-type: none"> ○ IndicatorGap ○ SubUnits ○ Costs ● Background documents
Process prerequisites	<ul style="list-style-type: none"> ● Country folders for WFD and for PoM and background documents exist in the CDR. ● The MS Reporter has an Eionet account with the necessary access rights for uploading the national delivery.
Process Flow	<p>Water Framework Directive - Programmes of Measures – 2018 reporting, includes reporting the background documents first and then the XML files. Background documents reporting follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). Since the files uploaded for this reporting obligation are not XML or GML (usually PDF format), QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release. XML files reporting process also follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12) but the QA validations will be executed for the XML files.</p> <p>QA validations: Reporter runs the following automatic QA validations to assess the quality of the files / data reported:</p> <ul style="list-style-type: none"> ● Schema checks ● Within schema checks ● Cross schema checks ● Statistics ● Registry <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created for both types of files.</p>
Process Output	<ul style="list-style-type: none"> ● Envelopes are closed. ● XML files and background files (if exist) are released.
Exceptions to Normal Process Flow	<ol style="list-style-type: none"> I. Quality assessment failure: In cases when the QA assessment process failed for the XML files, the reporter should wait several hours (indicatively eight (8) hours) and then select to re-run the automatic QA assessment. If the second request happens for exactly the same files as the first one, the results of the previous attempt will have been stored in the server and will be delivered very quickly. II. Blocking errors in Step 7: If blocking errors are detected in Step 7, the reporter reviews and fixes them so that no blocker errors exist and resubmits the data. III. Blocking errors in Step 11: If blocking errors are detected in Step 11, a manual review by an EC representative takes place. EC representative manually reviews errors detected by the system. <ul style="list-style-type: none"> ● The EC representative (reviewer) might <ul style="list-style-type: none"> ○ Either manually accept the files and release the envelope. A confirmation of receipt through the system, signifies acceptance of the data. ○ Or the EC representative (reviewer) rejects the files and prepares a feedback document regarding the unsuccessful delivery and sends it back to the

reporter. The status of the envelope remains draft and the reporter has to resubmit the files.

See Figure 9: EU Registry is streamlining the reporting of Industrial Emissions for details in the process.

3.3 Industrial Emissions Directive (IED)

The **Industrial Emission Directive** (shortly IED) establishes a legal framework to industrial activities of energy, metal production and processing, minerals, chemicals, waste management and other sectors such as pulp and paper production, slaughterhouses and the intensive rearing of poultry and pigs. It lays down rules designed to prevent or, where that is not practicable, to reduce emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole. Directive 2010/75/EU of the European Parliament and the Council on industrial emissions is the main EU instrument regulating pollutant emissions from industrial installations. The IED was adopted on 24 November 2010. It is based on a Commission proposal recasting 7 previously existing directives (including in particular the IPPC Directive) following an extensive review of the policy.

3.3.1 Brief Profile

IED sets out a list of Reporting Obligations, which reporters should take into account and manage in order to comply with the corresponding Directive. The list of the Reporting Obligations under IED is outlined below:

- [EU Registry on industrial sites \(incl. Module 2 – Annex II - Implementing Decision 2012/795/EU\)](#) [under development]
- [Reporting on Combustion Plants under Art. 72 of the IED \(2010/75/EU\)](#) [terminated]
- [MS implementation of IED \(Module 1 - Annex II Decision 2012/795/EU\)](#) [terminated]
- [Sectoral spotlight IED Glass and Iron & Steel installations \(Module 3 – Annex II - Implementing Decision 2012/795/EU\)](#) [terminated]
- [Waste incineration and solvent emissions under IED \(Module 4 – Annex II - Implementing Decision 2012/795/EU\)](#) [terminated]
- [Integrated emission management techniques applied in mineral oil and gas refineries under IED \(2010/75/EU\)](#) [discussions next year]

Some of the reporting obligations are already terminated. The business processes related to the under development reporting obligation is presented in the following section.

3.3.2 Reporting obligation for: EU Registry on industrial sites (incl. Module 2 – Annex II - Implementing Decision 2012/795/EU)

3.3.2.1 General information

This updated reporting obligation is an engagement of the European Commission and EAA to streamline the process that comprises:

- The establishment of an INSPIRE-compliant reference dataset, which brings together the identification and administrative details of regulated industrial activities.
- The integration of emissions reporting from facilities subject to the E-PRTR Regulation and from LCPs under the scope of Chapter III of the IED in a unified data flow will allow streamlining and offer immediate validation to ensure data are coherent and consistent

The EU registry on industrial sites will be a dataflow that collects information on the facilities, installations and plants which are obliged to report under the E-PRTR Regulation and the Industrial Emissions Directive. This

obligation finds its legal basis in the so-called module 2 of the Commission Implementing Decision 2012/795/EU. The EU registry will provide an improved validation of reported integrated geographic data and thematic data submission that will lead to better and more concrete environmental reports.

The updated EU registry reporting obligation will contain all administrative information for:

- E-PRTR facilities & associated sites which are subject to Annex I of the E-PRTR Regulation (without Consideration of Annex II or Article 5 thresholds);
- IED installations subject to Annex I of the IED;
- Installation parts (either LCP or waste incinerators under the IED).

The EU Registry will be the reference dataset for thematic reporting on entities identified in it. In a first stage, the integrated E-PRTR and LCP reporting (i.e. of data on their releases, transfers, fuel consumption and so on) will refer to entities already reported within the EU Registry, thus enabling linkages between the administrative and thematic data. The EU Registry will contain all relevant permit and geospatial information that will not be duplicated in the thematic data flow.

This dataflow is being implemented upon the pre-existing INSPIRE data specification for ‘Production and Industrial Facilities’ (INSPIRE PF¹⁸) in an attempt to streamline process and gain the benefits of INSPIRE.

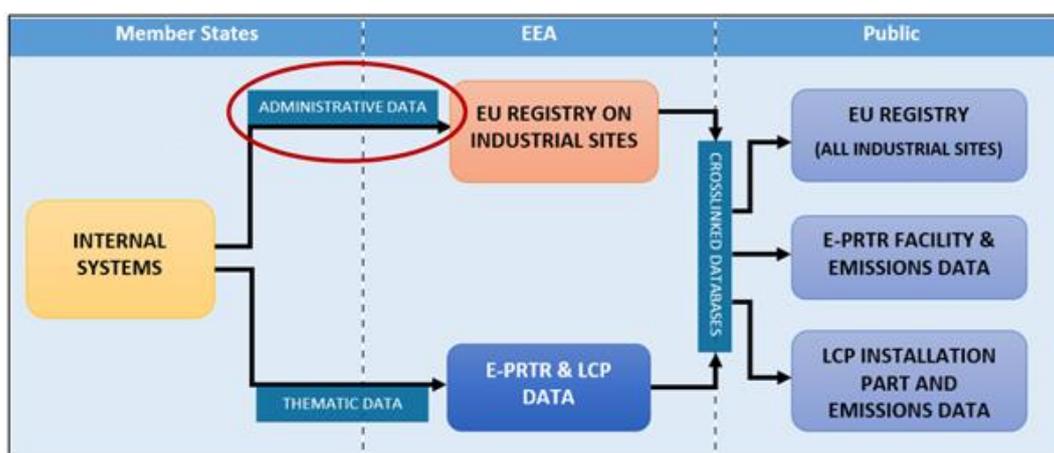


Figure 9: EU Registry is streaming the reporting of Industrial Emissions

This dataflow is currently under development phase.

The business processes behind these reporting obligation will be analyzed later, in the corresponding sections of the document.

Reporting period	Reporting frequency for this obligation is annually.
Responsible for reporting	National reporting contacts: Industrial sites reporters (extranet-euregistry-reporter) ¹⁹
Reporting to	European Commission Directorate General Environment
Type of information reported	Countries may choose to create an XML file with their own means or populate a Microsoft Access template which later is converted into an XML file.
Useful links	https://rod.eionet.europa.eu/obligations/721

¹⁸ <http://inspire.ec.europa.eu/Themes/121/2892>

¹⁹ http://www.eionet.europa.eu/ldap-roles/?role_id=extranet-euregistry

3.3.2.2 Reporting Process

Name of Process	EU Registry on industrial sites (incl. Module 2 – Annex II - Implementing Decision 2012/795/EU)
Process Owner	Data Steward
Process Purpose	Help countries to monitor and report the key parameters relevant for verifying the implementation progress of these legal obligations and the pressures on the environment generated by the pollutants.
Process Scope	EU Registry reporting is considered an important tool for setting and measuring the effectiveness of environmental policies.
Process Input	<p>Reporting files should include the European industrial entities from a geographical perspective, the EU Registry does not cover all the industrial activities but a delimited set of thresholds. Therefore the scope covers the four hierarchical levels:</p> <ul style="list-style-type: none"> • Production sites; • Production facilities; • Production installations and • Production installation parts. <div style="text-align: center;"> <pre> graph TD A["ProductionSite 1 Site INSPIRE ID"] --> B["ProductionFacility 1 Facility INSPIRE ID"] A --> C["ProductionFacility 2 Facility INSPIRE ID"] B --> D["ProductionInstallation 1 Installation INSPIRE ID"] B --> E["ProductionInstallationPart 1 Installation Part INSPIRE ID"] </pre> </div> <p>Figure 10: Geographical hierarchy of the EU Registry</p> <p>The country reports are prepared in XML, GML or using the Microsoft access template.</p> <ul style="list-style-type: none"> • Schemas and data model defined here: http://dd.eionet.europa.eu/schemaset/euregistryonindustrialsites/view
Process prerequisites	<ul style="list-style-type: none"> • Country folder for EU Registry on Industrial Sites to preexists in the Industrial Emission CDR country folder. • In case a country reporter is using the Microsoft Access template must use a conversion service where a populated Access file is converted to GML format. The output GML file will be uploaded in the CDR envelope.
Process Flow	The EU Registry reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). QA validations will be executed only for the XML and GML files.

	<p>However, some steps are specific to this obligation.</p> <p>Prepare files²⁰:</p> <ol style="list-style-type: none"> 1. Reporting countries may generate the GML files I their own means and validate that those against INSPIRE Geography Language requirements. 2. Either populate Microsoft Access template and convert into GML file using EEA online conversion tool²¹. 3. Then GML file generated by either way 1 or 2 will be submitted to CDR. <p>Upload files:</p> <ol style="list-style-type: none"> 4. The EU Registry dataflow, by default, makes the envelopes available to the public. If the report contains any confidential information, the reporter shall restrict the envelope from the public view by selecting the “Restricted from public view” option. <p>QA validations</p> <ol style="list-style-type: none"> 5. In case a the reported file is in XML format the system run checks to ensure: <ol style="list-style-type: none"> a. Its semantic and syntactic coherence with the XML Schema and the INSPIRE requirements; b. The consistency of the data with previous submissions and a set of logical rules. c. Checking consistency between the content of the XML and the Master database.
<p>Process Output</p>	<p>Envelope is closed and the following files are published:</p> <ul style="list-style-type: none"> • XML • GML <p>The EEA is harvesting data reported to CDR and generate a version of the EU registry once a year after the legal delivery. The EEA may generate additional versions in consultation to the countries and the Commission.</p>

²⁰ http://cdrtest.eionet.europa.eu/help/ied_registry/documents/Workflow.pdf

²¹ FME tool available currently in http://cdrtest.eionet.europa.eu/help/ied_registry/FME_processes/Access2GML.htm

3.4 Nationally Designated areas (CDDA)

The Nationally designated areas inventory (CDDA - formerly known as the Common Database on Designated Areas) is an inventory holding information about designated areas and the national legislative instruments, which directly or indirectly create protected areas in Eionet partner countries.

The CDDA inventory was created in 1995 under the CORINE programme of the European Commission as a common effort between UNEP-WCMC, Council of Europe and EEA, hence the name "Common Database on Designated Areas". Each organisation maintained their own database (inventory) of designated areas and these databases were merged to a common one maintained by the EEA and disseminated by the EEA website in agreement with Council of Europe and UNEP-WCMC with a pan-European coverage.

Since a number of years the UNEP-WCMC has in place an IT infrastructure for the World Database on Protected Areas (WDPA) and the EEA is maintaining now the inventory of the Eionet partner countries only. The CDDA was re-named to 'Nationally designated areas inventory' to reflect this change but the abbreviation was kept as it had become synonym with the dataset maintained by Eionet and the EEA. The CDDA is the official source of protected area information from European countries to the World Database of Protected Areas (WDPA).

3.4.1 Brief Profile

The reporting obligation for the CDDA is defined in the ROD system in Reportnet: [Nationally designated areas \(CDDA\)](#) as a core data flow. Eionet partner countries (EEA member and cooperating countries, thirty-nine (39) countries in total) have committed to report on areas designated under national legislation for the purpose of nature protection including sites such as national parks and nature reserves. Other types of sites may also be reported²².

3.4.2 Reporting obligation for: National designated areas (CDDA)

3.4.2.1 General information

The CDDA is an agreed annual Eionet core data flow maintained by the European Environment Agency (EEA) with support from the European Topic Centre on Biological Diversity (ETC/BD) and the reporting date is fixed to 15 March of any year. The CDDA data is delivered by each country as thematic information and spatial information. The dataset is used by the EEA and e.g. the UNEP-WCMC for their main assessments, products and services.

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 15/03/2019
Responsible for reporting	National reporting coordinators: National Focal Points (eionet-nfp) National reporting contacts: Nationally designated areas (CDDA) Reporters (reportnet-awp-cdda-reporter)
Reporting to	European Environment Agency (EEA)
Useful links	<ul style="list-style-type: none">• EEA CDDA dataset: https://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-12• https://bd.eionet.europa.eu/activities/products/cdda• http://cdr.eionet.europa.eu/help/cdda• ROD reference: http://rod.eionet.europa.eu/obligations/32

²² A **protected area**, as defined by IUCN, is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. The definition of a "**designated area**" within the CDDA is very similar. The "designation types" are grouped according to three categories (A, B, C), which clearly reflects the IUCN note above by also identifying designation types in other sectors "or other effective means". As some of the designation types do not refer to the creation of individual site networks, the definition of the CDDA also includes "area covering" designations such as the protection of the complete distribution of certain habitats.

3.4.2.2 Reporting process

Name of Process	Nationally designated areas (CDDA)
Process Owner	Data steward
Process Purpose	The process aims at better co-ordinating and streamlining information on designated areas resulting from various legal frameworks, whether at international, Community or national level. Very often, a same site is designated totally or partially, under several legal frameworks, often with different boundaries and surface areas. Thus, if site designations are not identified individually in a database, general statistics on designated areas in Europe are wrong, with many overlaps and double-counting.
Process Scope	Report information about nationally designated areas and the national legislative instruments (including nature protection sites such as national parks and nature reserves in EEA MS), which directly or indirectly create protected areas in Eionet partner countries. Through this reporting process, a harmonized data inventory should be produced and maintained across Europe.
Process Input	<ul style="list-style-type: none"> • Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/datasets/3344 • The following CDDA data sets should be reported: <ul style="list-style-type: none"> ○ Type 1 spatial data (GML format) – GML files should be conformant with the schemas available in the INSPIRE Protected Sites (INSPIRE PS). If such option is not available, spatial data should be produced using shapefiles (based on the available shapefile templates) and should be converted to GML files using converters tool prior to their upload to CDR. ○ Type 2 (XLS or XML format) <ul style="list-style-type: none"> ▪ DesignatedArea ▪ LinkedDataset <p>For the XLS files the respective Excel file template must be used in order to prepare the dataset. The XLS file will be converted automatically to XML file upon upload. Else, XML files should be prepared based on the corresponding templates.</p>
Process prerequisites	<ul style="list-style-type: none"> • To assure successful execution of QC, all data files (Type 1 & Type 2), have to be finalized before uploading. • Country folder for CDDA: exists in the CDR • An envelope can be released only if all Type 1 and Type 2 data are present in the envelope. Partial deliveries to the CDR envelope will not be released. • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Nationally designated areas (CDDA) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). Reporter should upload both parts of the delivery (Type 1 and Type 2 data files) separately or included in a zip file. QA validations will be executed for the XML and GML files.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created and all Type 1 and Type 2 data and files will need to be uploaded again, else the envelope will not be released.</p>
Process Output	Envelope is closed and XML & GML files (Type 1 and Type 2 data are included in the envelope) are released.
Exceptions to Normal Process Flow	

3.5 Drinking water directive (DWD)

The **Drinking Water Directive** (shortly DWD - Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption) concerns the quality of water intended for human consumption. Its objective is to protect human health from adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.

3.5.1 Brief profile

The DWD reporting obligations of the MS are outlined in the [Drinking Water Directive - Report on Quality of Water for Human Consumption](#). According to Article 13, the Member State have the obligation to publish a report every three years (thirty – six months) on the quality of water intended for human consumption with the objective of informing the consumers.

The reporting process for the DWD required that the MS prepared the reports in different formats every 2.5 years and submitted them to the Commission, which usually engaged an external contractor to analyse the reports (using tools of contractor's choice) and produce the final deliverable. The whole process lasted around three (3) to four (4) years.

3.5.2 Reporting concerns

In general, the Directive has been relatively well implemented by Member States, but the following concerns, required action to be taken:

- DWD's approach to monitoring quality at the point of consumption uses parameters determined over twenty (20) years ago.
- The overall reporting process has an average duration of three (3) to four (4) years, which renders the report obsolete by the moment of its publication.
- In terms of the DWD, MS would report the % of their compliance with the DWD without providing useful details or clarifications.

3.5.3 New Drinking Water Directive

All of the above, called for an examination of whether the DWD dealt effectively with existing and emerging pressures and ensured that people living in and visiting European Union countries could continue to enjoy high-quality drinking water for decades to come. Therefore, the European Commission adopted on 1 February 2018 a proposal for a revised drinking water directive to improve the quality of drinking water and provide greater access and information to citizens.

Most important changes were introduced in Articles 14 (Information to the public) and 15 (Information on monitoring of implementation). Main objective of the introduced articles are the following:

- **Article 14:** Have the data publicly available and instead of requesting by the MS to report a subset of data, to assure availability of data and dissemination of relevant ones to the public.
- **Article 15:** Ensure that MS instead of reporting the percentage of compliance with the DWD, to report the number of incidents as well as the number/percentage of samples exceeding the threshold values for the water quality indicators. The dataset provided by the MS should be clearly defined and shared with EEA.

3.5.4 Recommended improvements

In order to be aligned with the new drinking water directive and assure that sufficient data are provided for the environment in the reports, a different approach should be followed in the reporting system. More specifically:

1. The data reporting concept should be replaced by the data collecting approach. MS should provide their data on a daily basis in order to overcome issues related to timeliness, reporting frequency and data quality. Consequently, the new system should focus mainly on the harvesting of the data available.
2. A decentralized platform should serve the needs of the new DWD.
3. A new data model will be defined, including all the necessary information to make the reported parameters clear and concise.

3.6 Monitoring Mechanism Regulation (MMR)

The Monitoring Mechanism Regulation (shortly MMR) establishes a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC Text with EEA relevance. More specifically, the MMR establishes a mechanism for:

- ensuring the timeliness, transparency, accuracy, consistency, comparability and completeness of reporting by the Union and its Member States to the UNFCCC Secretariat;
- reporting and verifying information relating to commitments of the Union and its Member States pursuant to the UNFCCC, to the Kyoto Protocol and to decisions adopted thereunder and evaluating progress towards meeting those commitments;
- monitoring and reporting all anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol on substances that deplete the ozone layer in the Member States;
- monitoring, reporting, reviewing and verifying greenhouse gas emissions and other information pursuant to Article 6 of Decision No 406/2009/EC;
- reporting the use of revenue generated by auctioning allowances under Article 3d(1) or (2) or Article 10(1) of Directive 2003/87/EC, pursuant to Article 3d(4) and Article 10(3) of that Directive;
- monitoring and reporting on the actions taken by Member States to adapt to the inevitable consequences of climate change in a cost-effective manner;
- evaluating progress by the Member States towards meeting their obligations under Decision No 406/2009/EC.

3.6.1 Brief Profile

MMR sets out a list of Reporting Obligations, which EU MS should take into account and manage in order to comply with the corresponding Directive. The list of the Reporting Obligations under MMR is outlined below:

- [Concluded transfers under the Effort Sharing Decision](#) [MMR Article 7(1)h]
- [National policies and measures \(climate change mitigation\)](#) [MMR Article 13]
- [Projections \(greenhouse gas emissions and removals\)](#) [MMR Article 14]
- [Use of auctioning revenue and project credits](#) [MMR Article 17]
- [Approximated greenhouse gas inventories](#) [MMR Article 8]
- [Low-carbon development strategies](#) [MMR Article 4] **one time only (09/01/2015)**
- [Greenhouse gas inventories](#) [MMR Article 7]
- [National adaptation actions](#) [MMR Article 15]
- [Financial and technology support provided to developing countries](#) [MMR Article 16]
- [Biennial reports and national communications](#) [MMR Article 18]
- [Kyoto true-up period reports](#) **[terminated]** [MMR Article 22]
- [Land use, land-use change and forestry \(LULUCF\)](#) [MMR Article 7, LULUCF Decision]

The Kyoto true-up period reports obligation is already terminated, as it is indicated in the obligations' list. The business processes related to the active reporting obligations are presented in the following sections.

3.6.2 Reporting obligation for: Low-carbon development strategies

3.6.2.1 General information

The MMR required that MS prepared low-carbon development strategies (LCDS) and reported on the status of implementation of their LCDS (Article 4(2)). Under the MMR, MS are also required to provide information on updates relevant to their LCDS and progress in implementing the strategies (Article 13(1) (b) of the MMR and Article 21 of Commission Implementing Regulation (EU) No 749/2014). Reporting for Article 4, was a one off exercise to report some long-term strategies in 2015 and as soon as it was reported, it ended.

Reporting period	One time only reporting on 09/01/2015
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mmr-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environment Agency, UN Framework Convention on Climate Change
Useful links	ROD reference: https://rod.eionet.europa.eu/obligations/700

3.6.2.2 Reporting process

Name of Process	Low-carbon development strategies
Process Owner	Data steward
Process Purpose	Reporting of Member States' low-carbon development strategies, the status of their implementation and any updates.
Process Scope	Low-carbon development strategies contribute to the transparent and accurate monitoring of the actual and projected progress made by Member States, including the contribution made by Union measures, in fulfilling the Union's and the Member States' commitments under the UNFCCC, and to meeting the greenhouse gas emission reduction commitments of Member States under Decision No 406/2009/EC and achieving long-term emission reductions.
Process Input	<ul style="list-style-type: none"> • Word template for the reporting can be found under: http://cdr.eionet.europa.eu/help/mmr • The following MMR Low-carbon development strategies data sets were required to be reported in the word template provided by the EC: <ul style="list-style-type: none"> ○ MS name ○ Link to the LCDS of the MS ○ If a link is not publicly available, the name of the LCDS, attach the LCDS and the manner in which the LCDS is made available to the public pursuant to Article 4(3) of Regulation (EU) No 525/2013 ○ Whether the LCDS includes information on LULUCF actions required by Article 10 of Decision No 529/2013/EU as a clearly identifiable part of the LCDS or not ○ Additional information regarding the LCDS ○ Status of implementation of the LCDS <ul style="list-style-type: none"> ▪ Legal status of the LCDS

	<ul style="list-style-type: none"> ▪ Actions taken in the implementation of the LCDS (e.g. follow up legal measures, budgetary decisions) ▪ Any other information relevant regarding the status of implementation of the LCDS <p>○ Is the report on the status of implementation according to Article 4 MMR combined with the report on updates relevant to the LCDS and progress in implementing the strategies under Article 13(1) (b) of the Monitoring Mechanism Regulation and Article 21 of Commission Implementing Regulation (EU) No 749/2014)? In case of positive answers, the following information was also requested:</p> <ul style="list-style-type: none"> ▪ The objective and a short description of the update carried out ▪ The legal status of the update ▪ The changes and expected impacts of the update on the implementation of the LCDS ▪ The timeline for the implementation of the LCDS and of its update ▪ A description of the progress for the implementation of the LCDS and of its update ▪ Where available, an assessment of the projected costs and benefits associated with the update <p>○ Additional information on any other element not covered, considered to be relevant</p> <p>This information was submitted in a word file.</p>
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR Low-carbon development strategies : exists in the CDR • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Low-carbon development strategies reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>Since the files uploaded for this reporting obligation are Word documents, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: There was no request for resubmission or change.</p>
Process Output	<p>Envelope is closed.</p> <p>The Word document file along with the additional files uploaded were released.</p>
Exceptions to Normal Process Flow	<p>NA</p>

3.6.3 Reporting obligation for: Land use, land-use change and forestry (LULUCF)

3.6.3.1 General information

Data and other information on GHG emissions from land use, land-use change and forestry (LULUCF) activities is required under Art.7(1)d of the MMR, as well as the LULUCF Decision.

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 15/01/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environmental Agency
Useful links	ROD reference: https://rod.eionet.europa.eu/obligations/711

3.6.3.2 Reporting process

Name of Process	Land use, land-use change and forestry (LULUCF)
Process Owner	Data steward
Process Purpose	MS shall report their anthropogenic greenhouse gas emissions by sources and removals of CO ₂ by sinks resulting from LULUCF activities pursuant to Decision No 529/2013/EU and the Kyoto Protocol and information on the accounting of these greenhouse gas emissions and removals from LULUCF activities, in accordance with Decision No 529/2013/EU and with Article 3(3) and (4) of the Kyoto Protocol, and relevant decisions thereunder, for the years between 2008 or other applicable years and the year X-2. Where Member States account for cropland management, grazing land management, revegetation or wetland drainage and rewetting, they shall in addition report greenhouse gas emissions by sources and removals by sinks for each such activity for the relevant base year or period specified in Annex VI to Decision No 529/2013/EU and in the Annex to Decision 13/CMP.1. In complying with their reporting obligations pursuant to this point, and in particular when submitting information on emissions and removals relating to their accounting obligations set out in Decision No 529/2013/EU, Member States shall submit information taking fully into account applicable IPCC good practice guidance for LULUCF.
Process Scope	Under EU legislation adopted in May 2018, EU Member States have to ensure that greenhouse gas emissions from land use, land use change or forestry are offset by at least an equivalent removal of CO ₂ from the atmosphere in the period 2021 to 2030.
Process Input	The data required in the KP LULUCF Facilitated tables excel template file should be reported for the Land use, land-use change and forestry (LULUCF) The information is submitted in XLS files.
Process prerequisites	<ul style="list-style-type: none"> Country folder for MMR Land use, land-use change and forestry (LULUCF): exists in the CDR The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	Land use, land-use change and forestry (LULUCF) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). Since the files uploaded for this reporting obligation are XLSX, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will

	<p>attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created in order to resubmit the data.</p>
Process Output	<p>Envelope is closed.</p> <p>The XLSX file reported along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	NA

3.6.4 Reporting obligation for: Concluded transfers under the Effort Sharing Decision

3.6.4.1 General information

Under Article 7 (1)(h) of Regulation (EU) 525/2013, the Monitoring Mechanism Regulation (MMR), Member States are required to submit summary information on concluded transfers pursuant to Article 3(4) and (5) of Decision No 406/2009/EC, for the year X-1. This information is reported at the same time as greenhouse gas inventories for the year X-2.

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 15/01/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mmr-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environmental Agency
Useful links	<ul style="list-style-type: none"> Reporting guidelines for Concluding transfers under the Effort Sharing Decision: http://cdr.eionet.europa.eu/help/mmr/MMR-Art7-ConcludedTransfers-ReportingManual-v1.pdf ROD reference: https://rod.eionet.europa.eu/obligations/755

3.6.4.2 Reporting process

Name of Process	Concluded transfers under the Effort Sharing Decision
Process Owner	Data steward
Process Purpose	The process aims at collecting information about the concluded transfers for the year X-1.
Process Scope	<p>All EU countries are required to monitor their emissions under the EU's greenhouse gas monitoring mechanism, which sets the EU's own internal reporting rules on the basis of internationally agreed obligations. In terms of this obligation, a MS may transfer up to 5% of its annual emission allocation for a given year to other MS. A receiving MS may use this quantity for the implementation of its obligation under this Article for the given year or any subsequent years until 2020. A MS cannot transfer any part of its annual emission allocation if, at the time of transfer, that MS is not in compliance with the requirements of this Decision.</p> <p>A MS may transfer the part of its annual emission allocation that exceeds its greenhouse gas emissions for that year, taking into account the use of flexibilities pursuant to paragraphs 3 and 4, to other MS. A receiving MS may use this quantity for the implementation of its obligations under this Article for the same year or any subsequent years until 2020. A MS cannot transfer any part of its annual emission allocation if, at the time of transfer, it is not in compliance with the requirements of this Decision.</p>
Process Input	<ul style="list-style-type: none"> Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schema/mmr-concluded-transfers/ConcludedTransfers.xsd/view The following data sets for the MMR Concluded Transfers should be reported through a web questionnaire: <ul style="list-style-type: none"> Quantity of Annual Emission Allocation units (AEAs) Transferring Member State Acquiring Member State Price per AEA

	<ul style="list-style-type: none"> ○ Date of the transfer agreement ○ Year of the expected transaction in the registry ○ Other information (such as greening schemes) <p>The information outlined in the bullets above, should be reported per transfer and the reporter is able to add transfers.</p> <p>The information stored in the web questionnaire will be stored in an XML file.</p>
Process prerequisites	<ul style="list-style-type: none"> ● Country folder for MMR Concluded transfers: exists in the CDR ● The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Concluded transfers under the Effort Sharing Decision reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 4) and then proceeds with the following:</p> <ol style="list-style-type: none"> 5. Selects to access the web questionnaire page. 6. Submits the data to be reported per transfer. Selects whether data validation results should be displayed or not. 7. Saves the data. 8. Selects optional to see the print preview of the reported data. 9. Closes the web questionnaire and returns to the delivery page. 10. Adds additional files related to the delivery, if any. 11. Completes the delivery and releases the envelope. 12. The system releases the envelope, the files included are considered to be officially delivered and confirmation of receipt message and automatic feedback is stored automatically in the envelope's feedback area. 13. Once the envelope is released, reporter activates the task and selects to finish the delivery. 14. The system closes the envelope and the delivery is considered fully final. <p>Data resubmission: In case a resubmission of the files is required, a new envelope could be created in order to resubmit the data.</p>
Process Output	<p>Envelope is closed.</p> <p>The XML file of the questionnaire along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	<p>Modifications based on feedback received: The additional feedback received by the EC, EEA or ETC/ACM might indicate that some changes should be applied to the delivered data. The reporter might act in any of the two following ways in order to redeliver the data:</p> <ol style="list-style-type: none"> 1. After Step 12, selects to activate the envelope, modify the existing web questionnaire and redeliver it. 2. Create a new envelope and complete a new web questionnaire taking into account the feedback received.

3.6.5 Reporting obligation for: Greenhouse gas inventories

3.6.5.1 General information

Under Article 7 of Regulation (EU) 525/2013, the Monitoring Mechanism Regulation (MMR), Member States are required to report information on the Greenhouse gas inventories until year X-1 [to be clarified].

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 15/01/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environmental Agency
Useful links	<ul style="list-style-type: none"> • ROD reference for Greenhouse gas inventories: https://rod.eionet.europa.eu/obligations/701 • https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0749&from=EN

3.6.5.2 Reporting process

Name of Process	Greenhouse gas inventories
Process Owner	Data steward
Process Purpose	Reporting on greenhouse gas inventories, indicators, Kyoto units, summary information on concluded transfers pursuant to Article 3(4) and (5) of Decision No 406/2009/EC, for the year X-1 [to be clarified], use of flexible mechanisms under the Kyoto Protocol, steps taken to improve inventory estimates, allocation of ETS verified emissions to source categories, results of consistency checks, changes to national system and registry, information on QA/QC plans. This reporting obligation is an Eionet core data flow.
Process Scope	The MMR Article 7 enables the preparation of annual reports by the MS of the EU in accordance with the obligations under the Kyoto Protocol.
Process Input	Reporting for Greenhouse Gas Inventories takes place via an XML file. MS report only the approximated data for greenhouse gas emissions they have available.
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR Greenhouse gas inventories: exists in the CDR • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	Greenhouse gas inventories reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). Data resubmission: Resubmissions are needed in cases the numbers reported by the MS have to change. In case a resubmission of the files is required, a new envelope will need to be created.
Process Output	Envelope is closed. The XML file along with the additional files uploaded are released.
Exceptions to Normal Process Flow	NA

3.6.6 Reporting obligation for: Approximated greenhouse gas inventories

3.6.6.1 General information

Approximated greenhouse gas inventories for the year X-1. (Those reported under the UNFCCC and Article 7 of the MMR cover a period until the year X-2.)

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 31/07/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC)
Useful links	<ul style="list-style-type: none"> • ROD reference: https://rod.eionet.europa.eu/obligations/702 • https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0749&from=EN

3.6.6.2 Reporting process

Name of Process	Approximated greenhouse gas inventories
Process Owner	Data steward
Process Purpose	The EC wants to know whether the MS are on track to meeting their targets sooner than the final report about greenhouse gas inventories; so this reporting obligation addresses this request. The reporters of this obligation are the MS. The reporting is only about year (X-1: i.e. on 2018 MS reported about 2017) and the data are not final and estimates / extrapolations might have been performed. However, the MS try to be as close as possible to what they are going to report the next year.
Process Scope	By 31 July each year (year X), Member States shall, where possible, submit to the Commission approximated greenhouse gas inventories for the year X-1. The Commission shall, on the basis of the Member States' approximated greenhouse gas inventories or, if a Member State has not communicated its approximated inventories by that date, on the basis of its own estimates, annually compile a Union approximated greenhouse gas inventory. The Commission shall make this information available to the public each year by 30 September.
Process Input	Reporting for Approximated Greenhouse Gas Inventories takes place via an excel file. MS report only the approximated data for greenhouse gas emissions they have available.
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR Approximated Greenhouse Gas Inventories: exists in the CDR • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Approximated Greenhouse Gas Inventories reporting process follows the steps outlined in section in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>Since the files uploaded for this reporting obligation are XLSX, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: There is no request for resubmission or change.</p>
Process Output	Envelope is closed. The XLSX file reported along with the additional files uploaded are released.

Exceptions to Normal Process Flow	NA
--	----

3.6.7 Reporting obligation for: National policies and measures (climate change mitigation)

3.6.7.1 General information

Under Article 13 of Regulation (EU) 525/2013, the Monitoring Mechanism Regulation (MMR), Member States are required to submit information on national policies and measures (PaMs) to the European Commission (EC) on a biennial basis.

Reporting period	Reporting frequency for this obligation is 24 months (biennial data-flow) with the next report due: 15/03/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mmr-reporter)
Reporting to	European Commission (EC)
Useful links	<ul style="list-style-type: none"> Reporting guidelines for PaM: http://cdr.eionet.europa.eu/help/mmr/MMR%20Article%2013%20Reporting%20Manual%20PaMs%20(2018).pdf ROD reference: https://rod.eionet.europa.eu/obligations/696

3.6.7.2 Reporting process

Name of Process	National policies and measures (climate change mitigation)
Process Owner	Data steward
Process Purpose	<p>The process aims at collecting information about:</p> <ul style="list-style-type: none"> national systems for reporting on policies and measures; updates relevant to their low-carbon development strategies; information on national policies and measures and on implementation of Union policies and measures; information on planned additional national policies and measures; information on domestic action and the use of flexible mechanisms under the Kyoto Protocol.
Process Scope	All EU countries are required to monitor their emissions under the EU's greenhouse gas monitoring mechanism, which sets the EU's own internal reporting rules on the basis of internationally agreed obligations. In terms of this obligation, MS must report the policies and measures (PaM) implemented, adopted or planned by European countries to reduce greenhouse gas (GHG) emissions.
Process Input	<ul style="list-style-type: none"> Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schema/mmr-pams/MMR_PAMs.xsd/view The following MMR PaMs data sets should be reported through a web questionnaire which is divided in three (3) tables: <ul style="list-style-type: none"> Table 1 Sectors and gases for reporting on policies and measures and groups of measures, and type of policy instrument: <ul style="list-style-type: none"> PaM ID Single PaM or group of PaMs Name of Pam or group of PaMs Name of PaM or group of PaMs in national language Short description

	<ul style="list-style-type: none"> ▪ Is the policy or measure envisaged with a view to limiting GHG emissions beyond the Member State commitments under Decision No 406/2009/EC? ▪ Sector(s) affected ▪ Greenhouse gas(es) affected ▪ Objective(s) ▪ Quantified objective ▪ Type of policy instrument ▪ Union Policy which resulted in the implementation of the PaM ▪ Status of Implementation ▪ Implementation Period ▪ Projections scenario in which the PaM is included ▪ Entities responsible for implementing the policy ▪ Indicators used to monitor and evaluate progress over time (ex post or ex ante) ▪ Reference to assessments and underpinning technical reports ▪ General comments <ul style="list-style-type: none"> ○ Table 2 Available results of ex ante and ex post assessments of the effects of individual or groups of policies and measures on mitigation of climate change: <ul style="list-style-type: none"> ▪ Policy impacting EU ETS or ESD emissions ▪ Ex ante assessment ▪ Ex post assessment ○ Table 3 Available projected and realised costs and benefits of individual or groups of policies and measures on mitigation of climate change: <ul style="list-style-type: none"> ▪ Projected costs and benefits ▪ Realised costs and benefits <p>The information stored in the web questionnaire will be stored in an XML file.</p>
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR National policies and measures (climate change mitigation): exists in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>National policies and measures (climate change mitigation) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 4) and then proceeds with the following:</p> <ol style="list-style-type: none"> 5. Selects to access the web questionnaire page. 6. Submits the data to be reported. 7. Saves the data. 8. Validates the data. 9. Selects optional to see the print preview of the reported data. 10. Closes the web questionnaire and returns to the delivery page. 11. Adds additional files related to the delivery, if any.

	<p>12. Runs automatic QA validations on the created XML file, to assess the quality of the reported data, if wishes so.</p> <p>13. Completes the delivery and releases the envelope.</p> <p>14. The system releases the envelope, the files included are considered to be officially delivered and a confirmation of receipt and automatic feedback is stored automatically in the envelope's feedback area.</p> <p>The files go for review by the EEA or ETC/ACM which provide additional feedback to the reporter.</p> <p>15. Based on the feedback received, and if no modifications are needed, reporter activates the task and selects to finish the delivery.</p> <p>16. The system closes the envelope and the delivery is considered fully final.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope could be created in order to resubmit the data.</p>
<p>Process Output</p>	<p>Envelope is closed.</p> <p>The XML file of the questionnaire along with the additional files uploaded are released.</p>
<p>Exceptions to Normal Process Flow</p>	<p>Modifications based on feedback received: The additional feedback received by the EC, EEA or ETC/ACM might indicate that some changes should be applied to the delivered data. The reporter might act in any of the two following ways in order to redeliver the data:</p> <ol style="list-style-type: none"> 1. After step 12, selects to activate the envelope, modify the existing web questionnaire and redeliver it. 2. Create a new envelope and complete a new web questionnaire taking into account the feedback received.

3.6.8 Reporting obligation for: Projections (greenhouse gas emissions and removals)

3.6.8.1 General information

Under Article 14(1) (b) of the EU MMR Member State shall report, every two years, total greenhouse gas (GHG) projections as well as separate estimates for emissions covered under the EU ETS and under ESD. Once adopted, the Effort Sharing Regulation (ESR) will replace the ESD from 2021 onwards.

Reporting period	Reporting frequency for this obligation is 24 months (biennial data-flow) with the next report due: 15/03/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mmr-reporter)
Reporting to	European Commission (EC)
Useful links	<ul style="list-style-type: none"> Reporting guidelines for projections: http://cdr.eionet.europa.eu/help/mmr/Guidance%20for%20reporting%20of%20ETS%20and%20ESD%20projections%20under%20MMR.pdf ROD reference: https://rod.eionet.europa.eu/obligations/697

3.6.8.2 Reporting process

Name of Process	Projections (greenhouse gas emissions and removals)
Process Owner	Data steward
Process Purpose	<p>National projections shall take into consideration any policies and measures adopted at Union level and shall include:</p> <ul style="list-style-type: none"> projections without measures where available, projections with measures, and, where available, projections with additional measures; total greenhouse gas projections and separate estimates for the projected greenhouse gas emissions for the emission sources; the impact of policies and measures identified pursuant to Article 13. Where such policies and measures are not included, this shall be clearly stated and explained; results of the sensitivity analysis performed for the projections; all relevant references to the assessment and the technical reports that underpin the projections referred to in paragraph 4.
Process Scope	MS shall report to the Commission national projections of anthropogenic greenhouse gas emissions by sources and removals by sinks, organized by gas or group of gases (HFCs and PFCs). Those projections shall include quantitative estimates for a sequence of four future years ending with 0 or 5 immediately following the reporting year.
Process Input	<ul style="list-style-type: none"> Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schema/mmr-projections/projections-Article23table1v6.XSD/view The following MMR projections information should be reported: <ul style="list-style-type: none"> MS Category Year Gas Unit Scenario

	<ul style="list-style-type: none"> ○ NotationKey ○ Value <p>The reported files are either XML or XLS. MS might also upload complementary documents for explanations in PDF or Word format.</p>
Process prerequisites	<ul style="list-style-type: none"> ● Country folder for MMR Projections (greenhouse gas emissions and removals): exists in the CDR ● The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Projections (greenhouse gas emissions and removals) reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>QA validations: The automatic QA validations to assess the quality of the files / data reported executed for Projections (greenhouse gas emissions and removals) are outlined in the following files:</p> <ul style="list-style-type: none"> ● http://cdr.eionet.europa.eu/help/mmr/GHG%20Projections_Checklist%20for%20Member%20States_prior%20submission_2018.pdf ● http://cdr.eionet.europa.eu/help/mmr/QAQC%20procedure%20for%20national%20and%20Union%20GHG%20projections%20(2017).pdf <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
Process Output	<p>Envelope is closed.</p> <p>The XML or XLSX files along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	NA

3.6.9 Reporting obligation for: National adaptation actions

3.6.9.1 General information

Under Article 15 the EU MMR Member State shall report, every four years, their national adaptation actions. MS aim to plan adaptation actions, prevent inappropriate adaptation and ensure consistency across public policy measures relating to adaptation. They aim to present measures designed to help them prepare for and exploit new climatic conditions.

Reporting period	Reporting frequency for this obligation is 48 months with the next report due: 15/03/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environment Agency, UN Framework Convention on Climate Change
Useful links	<ul style="list-style-type: none"> • Reporting guidelines: http://cdr.eionet.europa.eu/help/150202_MMR_guidelines_final.pdf • ROD reference: https://rod.eionet.europa.eu/obligations/703

3.6.9.2 Reporting process

Name of Process	National adaptation actions
Process Owner	Data steward
Process Purpose	By 15 March 2015, and every four years thereafter, aligned with the timings for reporting to the UNFCCC, Member States shall report to the Commission information on their national adaptation planning and strategies.
Process Scope	Information on Member States' national adaptation planning and strategies, outlining their implemented or planned actions to facilitate adaptation to climate change. That information shall include the main objectives and the climate-change impact category addressed, such as flooding, sea level rise, extreme temperatures, droughts, and other extreme weather events.
Process Input	<ul style="list-style-type: none"> • The following MMR National adaptation actions information should be reported: <ul style="list-style-type: none"> ○ Policy and legal framework <ul style="list-style-type: none"> ▪ Summary description of national adaptation framework including: <ul style="list-style-type: none"> • Adaptation Strategies • Adaptation action plans (NAP) at national, subnational, territorial, or sectoral levels ▪ Implementation means ▪ Schedule and planned review/revision and updating for the adaptation strategy and/or NAP ○ Impacts, vulnerability and adaptation assessments <ul style="list-style-type: none"> ▪ National (screening NAS) ▪ Sectoral & Other (territorial) ○ Research programs <ul style="list-style-type: none"> ▪ National Programmes ▪ Key research initiatives (added value)

	<ul style="list-style-type: none"> ○ Climate Services / Met Office <ul style="list-style-type: none"> ▪ Observation ▪ Climate projections and services ○ Web Portal(s) / Adaptation platform(s) ○ Monitoring, Indicators, Methodologies ○ Training and education resources ○ National Communication to the UNFCCC <p>The reported files are either PDF or Word. MS might also upload complementary documents for explanations in PDF or Word format.</p>
Process prerequisites	<ul style="list-style-type: none"> ● Country folder for MMR National adaptation actions: exists in the CDR ● The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>National adaptation actions reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>Since the files uploaded for this reporting obligation are Word or PDF documents, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
Process Output	<p>Envelope is closed.</p> <p>The PDF or Word files along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	NA

3.6.10 Reporting obligation for: Financial and technology support provided to developing countries

3.6.10.1 General information

Following the entry into force of the MMR, MS shall submit to the Commission, pursuant to Article 16 of the MMR, all relevant information on their financial and technology support provided to developing countries. These reporting provisions are essentially aligned with the requirements of the biennial report to the United Nations Framework for Convention to Climate Change (UNFCCC).

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 30/09/2018
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environment Agency, UN Framework Convention on Climate Change
Useful links	ROD reference: https://rod.eionet.europa.eu/obligations/704

3.6.10.2 Reporting process

Name of Process	Financial and technology support provided to developing countries
Process Owner	Data steward
Process Purpose	MS shall cooperate with the Commission to allow timely coherent reporting on support provided to developing countries.
Process Scope	Reporting of information on support provided to developing countries, including information on support for mitigation, adaptation, capacity-building and technology transfer and, if possible, information as to whether financial resources are new and additional. Information on financial flows based on the so-called "Rio markers" for climate change mitigation-related support and climate change adaptation-related support introduced by the OECD Development Assistance Committee and methodological information concerning the implementation of the climate change Rio markers methodology. Information on private financial flows shall include information on the definitions and methodologies used to determine any figures.
Process Input	<ul style="list-style-type: none"> • The information related to Financial and technology support provided to developing countries that should be reported is organized in three tables: <ul style="list-style-type: none"> ○ Table 7 - Provision of public financial support: summary information in <Year XXXX>; ○ Table 7(a) - Provision of public financial support: contribution through multilateral channels in <Year XXXX>; ○ Table 7(a) - Provision of public financial support: contribution through bilateral, regional and other channels in <Year XXXX>. <p>The reported files are Excel. MS might also upload complementary documents for explanations in PDF or Word format.</p>
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR Financial and technology support provided to developing countries: exists in the CDR • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.

Process Flow	<p>Financial and technology support provided to developing countries reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12).</p> <p>Since the files uploaded for this reporting obligation are Excel documents, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release.</p> <p>Data resubmission: In case a resubmission of the files is required, a new envelope will need to be created.</p>
Process Output	<p>Envelope is closed.</p> <p>The XLS files along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	<p>NA</p>

3.6.11 Reporting obligation for: Use of auctioning revenue and project credits

3.6.11.1 General information

Under Article 17 of the EU MMR Member State shall report, every year for year X-1, the use of auctioning revenue and project credits.

Reporting period	Reporting frequency for this obligation is 12 months (annual data-flow) with the next report due: 31/07/2019
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: EEA
Useful links	<ul style="list-style-type: none"> Reporting guidelines for projections: http://cdr.eionet.europa.eu/help/mmr/MMR-Art17-ReportingManual-v2.pdf ROD reference: https://rod.eionet.europa.eu/obligations/698

3.6.11.2 Reporting process

Name of Process	Use of auctioning revenue and project credits
Process Owner	Data steward
Process Purpose	MS shall submit to the Commission for the year X-1: <ul style="list-style-type: none"> a detailed justification of the use of credits from project types that cannot be used by operators in the EU ETS; information on the use of revenues during the year X-1 generated by the Member State by auctioning allowances and aviation allowances; information regarding hydroelectric power production project activities with a generating capacity exceeding 20 MW; auctioning revenue not disbursed in previous year.
Process Scope	MS shall report to the Commission about the use of auctioning revenue and project credits for the year X-1 which the Commission will use to produce aggregated Union information reports and make them available to the public in an easily accessible form.
Process Input	<ul style="list-style-type: none"> Schemas and documents: uploaded in the Data Dictionary (DD) system - http://dd.eionet.europa.eu/schema/mmr-article17/MMRArticle17Questionnaire.xsd/view The following MMR Use of auctioning revenue and project credits data sets should be reported through a web questionnaire which is divided in five (5) tables: <ul style="list-style-type: none"> Table 1 Revenues generated from auctioning of allowances in year X-1: The amount of revenues generated from auctioning of allowances: <ul style="list-style-type: none"> Total amount of revenues generated from auctioning of allowances; Of which amount of revenues generated from auctioning of allowances pursuant to Article 10 of Directive 2003/87/EC; Of which amount of revenues generated from auctioning of allowances pursuant to Article 3d(1) or (2) of Directive 2003/87/EC;

- Total amount of revenues from auctioning of allowances or equivalent financial value used for the purposes specified in paragraph 3 of Article 10, and Article 3d, paragraph 4 of Directive 2003/87/EC;
 - Of which amount of revenues from auctioning of allowances used for the purposes specified in Article 10, paragraph 3 of Directive 2003/87/EC (if data are available for separate reporting);
 - Of which amount of revenues from auctioning of allowances used for the purposes specified in Article 3d, paragraph 4 of Directive 2003/87/EC (if data are available for separate reporting);
 - Total amount of auctioning revenues generated or the equivalent in financial value committed in years before 2017 generated and not disbursed in the years before the year 2017 and carried-over for disbursement in the year 2017;
 - Explanation on methodology used for currency exchange for the information provided in tables 1 to 5;
 - Please provide the definitions used for 'commitment' and 'disbursement' as part of their report. Consistent definitions should be used across the tables.
- **Table 2** Use of revenues from auctioning of allowances for domestic and Union purposes pursuant to Article 3d and 10 of Directive 2003/87/EC
- Purpose for which revenues were used (e.g. programme, act, action or project title)
 - Short description
 - Amount for the year X-1
 - 1000 Euros
 - 1000 in Domestic Currency
 - Status
 - Revenues pursuant to
 - Article 3d
 - Article 10
 - Type of use
 - Financial instrument
 - Implementing Agency
 - Additional information
- **Table 3** Use of revenues from auctioning of allowances for international purposes. For the following two cases:
- Total amount used as specified under Articles 10(3) and Article 3d(4) of Directive 2003/87/EC for supporting third countries other than developing countries;
 - Total amount used as specified under Articles 10(3) and Article 3d(4) of Directive 2003/87/EC for supporting developing countries;
- The information outlined below is reported:
- Amount committed in the year X-1

- 1000 Euros
 - 1000 in Domestic Currency
 - Amount disbursed in the year
 - 1000 Euros
 - 1000 in Domestic Currency
 - Eventual explanation on allocation decisions.
- **Table 4** Use of revenues from auctioning of allowances to support developing countries through multilateral channels pursuant to Article 3d and 10 of Directive 2003/87/EC. For the following cases:
 - Total amount for supporting developing countries through multilateral channels;
 - of which used, if applicable, via multilateral funds;
 - Global Energy Efficiency and Renewable Energy Fund (GEEREF) (Article 10 (3)(a) of Directive 2003/87/EC);
 - Adaptation Fund under the UNFCCC (Article 10, paragraph 3(a) of Directive 2003/87/EC);
 - Special Climate Change FUND (SCCF) under the UNFCCC;
 - Green Climate Fund under the UNFCCC;
 - Least Developed Countries Fund;
 - UNFCCC Trust Fund for Supplementary Activities;
 - For multilateral support to REDD+ activities;
 - Other multilateral climate-related funds (please specify);

The information outlined below is reported:

 - Amount for the year X-1
 - 1000 Euros
 - 1000 Domestic Currency
 - Status
 - Type of support
 - Financial instrument
 - Sector
 - Information not available
 - Additional information
- **Table 5** Use of revenues from auctioning of allowances pursuant to Article 3d and 10 of Directive 2003/87/EC for bilateral or regional support to developing countries:
 - Programme/ project title
 - Recipient country/ region
 - Amount for the year X-1
 - 1000 Euros
 - 1000 in Domestic Currency

	<ul style="list-style-type: none"> ▪ Status ▪ Type of support ▪ Sector ▪ Financial instrument ▪ Implementing Agency ▪ Information not available ▪ Additional information <p>The information stored in the web questionnaire will be stored in an XML file.</p>
Process prerequisites	<ul style="list-style-type: none"> • Country folder for MMR Use of auctioning revenue and project credits: exists in the CDR. • The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	<p>Use of auctioning revenue and project credits reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 4) and then proceeds with the following:</p> <ol style="list-style-type: none"> 5. Selects to access the web questionnaire page. 6. Submits the data to be reported. 7. Saves the data. 8. Validates the data. 9. Selects optional to see the print preview of the reported data. 10. Closes the web questionnaire and returns to the delivery page. 11. Adds additional files related to the delivery, if any. 12. Runs automatic QA validations on the created XML file, to assess the quality of the reported data, if he/she wishes so. 13. Completes the delivery and releases the envelope. 14. The system releases the envelope, the files included are considered to be officially delivered and a confirmation of receipt and automatic feedback is stored automatically in the envelope's feedback area. <p>The files go for review and additional feedback is provided to the reporter by the EEA [to be clarified].</p> <ol style="list-style-type: none"> 15. Based on the feedback received, and if no modifications are needed, reporter activates the task and selects to finish the delivery. 16. The system closes the envelope and the delivery is considered fully final. <p>Data resubmission: In case a resubmission of the files is required, a new envelope could be created in order to resubmit the data.</p>
Process Output	<p>Envelope is closed.</p> <p>The XML file along with the additional files uploaded are released.</p>
Exceptions to Normal Process Flow	<p>Modifications based on feedback received: The additional feedback received might indicate that some changes should be applied to the delivered data. The reporter might act in any of the two following ways in order to redeliver the data:</p> <ul style="list-style-type: none"> • After step 12, selects to activate the envelope, modify the existing web questionnaire and redeliver it.

- Create a new envelope and complete a new web questionnaire taking into account the feedback received.

3.6.12 Reporting obligation for: Biennial reports and national communications

3.6.12.1 General information

The Union and the Member States shall submit biennial reports in accordance with Decision 2/CP.17 of the Conference of the Parties to the UNFCCC (Decision 2/CP.17), or subsequent relevant decisions adopted by the bodies of the UNFCCC, and national communications in accordance with Article 12 of the UNFCCC to the UNFCCC Secretariat.

Reporting period	Reporting frequency for this obligation is 24 months (biennial data-flow) with the next report due: 01/01/2020
Responsible for reporting	National reporting contacts: MMR reporters (extranet-mm-reporter)
Reporting to	European Commission (EC) Other clients using this reporting: European Environment Agency, UN Framework Convention on Climate Change
Useful links	ROD reference: https://rod.eionet.europa.eu/obligations/705

3.6.12.2 Reporting process

Name of Process	Biennial reports and national communications
Process Owner	Data steward
Process Purpose	Copies of the Member States' national communications and biennial reports should be submitted to the UNFCCC Secretariat every two years.
Process Scope	The report provides information on the historical and projected progress made per MS regarding its contribution to the achievement of joint European Union (EU) quantified economy-wide emission reduction target under the UNFCCC, including information on target, historic emissions, projected emissions and references to where further information can be found. Furthermore the report includes information on provision of financial, technological and capacity-building support by the MS to Parties not included in Annex I to the Convention.
Process Input	Annex I Parties shall use the BR Common Tabular Format (CTF) application when preparing their tabular format of the BRs (decision 19/CP.18). The BR CTF application is accessible only for the nominated national CTF compilers. The reported files are Excel. MS might also upload complementary documents for explanations in PDF or Word format.
Process prerequisites	<ul style="list-style-type: none">Country folder for MMR Biennial reports and national communications: exists in the CDR.The MS Reporter has an Eionet account with the necessary access rights for uploading the data.
Process Flow	Biennial reports and national communications reporting process follows the steps outlined in section "Initial Delivery to CDR" (Steps 1 to 12). Since the files uploaded for this reporting obligation are Excel documents, QA validation steps are not applicable. However, when the Reporter selects to release the envelope, the system will attempt to run the QA validations automatically, but no files will be found to analyze and the system will proceed with the release. Data resubmission: In case a resubmission of the files is required, a new envelope could be created.

Process Output	Envelope is closed. The XLS files along with the additional files uploaded are released.
Exceptions to Normal Process Flow	NA

APPENDIX 1: REFERENCES AND RELATED DOCUMENTS

ID	Reference or Related Document	Source or Link/Location
1	OTRS helpdesk system - user's guide	https://taskman.eionet.europa.eu/projects/eionet/wiki/Otrsguide
2	Eionet helpdesk service request	https://taskman.eionet.europa.eu/projects/reportnet/wiki/Eionet_helpdesk_service_request
3	Air Quality Directive IPR	http://rod.eionet.europa.eu/instruments/650
4	Air Quality e-Reporting - Submission procedures for reporting to Eionet CDR	http://www.eionet.europa.eu/aaportal/doc/AQ_IPR_submission_procedure_2018.pdf
5	USER GUIDE TO XML & DATA MODEL v3.3.0	http://www.eionet.europa.eu/aaportal/doc/UserGuide2_AQD_XML_v3.3.0.pdf
6	Reporting and exchanging air quality information using e-Reporting	https://www.eea.europa.eu/publications/reporting-and-exchanging-air-quality
7	Water Framework Directive (consolidated)	http://rod.eionet.europa.eu/instruments/516
8	Annex 6: Reporting on the River Basin Management Plans - a user manual	http://cdr.eionet.europa.eu/help/WFD/WFD_52_1_2016/Annex6.pdf
9	Reporting guidance on "Implementation of planned Programme of Measures" (2018) according to Article 15 (3) of the Water Framework Directive	http://cdr.eionet.europa.eu/help/WFD/WFD_76_2_2018/Documents/PoM_2018_ReportingGuidance
10	Industrial Emissions Directive (IED)	https://rod.eionet.europa.eu/instruments/654
11	Reporting obligation for: Nationally designated areas (CDDA)	http://rod.eionet.europa.eu/obligations/32
12	CDDA dataset definition	http://dd.eionet.europa.eu/datasets/2740/view
13	CDDA version 16 (2018) reporting guidelines version 1.1	http://cdr.eionet.europa.eu/help/cdda/CDDAv16%202018%20guidelines%20v1.1.pdf
14	New Drinking Water Directive (consolidated)	http://rod.eionet.europa.eu/instruments/545
15	Create Eionet account	https://taskman.eionet.europa.eu/projects/reportnet/wiki/Create_Eionet_account
16	Make delivery to CDR	https://taskman.eionet.europa.eu/projects/reportnet/wiki/Make_delivery_to_CDR
17	Define reporting requirements	https://taskman.eionet.europa.eu/projects/reportnet/wiki/Define_reporting_requirements
18	Creating a dataflow	https://taskman.eionet.europa.eu/projects/reportnet/wiki/Creating_a_dataflow

APPENDIX 2: FIGURES

Figure 1: Planning an implementation of a dataflow	7
Figure 2: Helpdesk - ticket processing.....	11
Figure 3: Helpdesk - ticket delegation	13
Figure 4: Helpdesk - ticket external delegation	14
Figure 5: Dataflow process creation	16
Figure 6: Generic process of initial delivery to CDR & resubmission	18
Figure 7: E2a data flow reporting process	40
Figure 8: Reporting order for WFD	53
Figure 9: EU Registry is streaming the reporting of Industrial Emissions	65
Figure 10: Geographical hierarchy of the EU Registry.....	66

APPENDIX 3: ROLES AND ACTORS

The network of EIONET (European Environment Information and Observation Network) consists of the European Environment Agency (EEA) and its member and cooperating countries. It consists of the EEA itself, six European Topic Centres (ETCs) and a network of around 1000 experts from 39 countries in up to 400 national bodies dealing with environmental information. These experts are the National Focal Points (NFPs) and the National Reference Centres (NRCs).

European Topic Centres (ETCs): A consortium of organisations from EEA member countries with expertise in a specific environmental area contracted by the EEA to support the EEA work programme.

National Focal Points (NFPs): An expert or group of experts in a national environmental organisation nominated and funded by the country and authorised to be the main contact point for the EEA, other Eionet members, and relevant actors. The NFP coordinates the national network consisting of numerous National Reference Centres (NRCs) in order to support the implementation of the EEA work programme

National Reference Centres (NRCs): An individual or group with relevant expertise in a national environmental organisation nominated and funded by the country to work with the EEA and relevant ETCs in specific environmental areas related to the EEA work programme.

Business reporters: Some data is delivered by businesses. E.g. Ozone Depleting Substances and Fluorinated Gases dataflows. The latter has over a thousand reporting companies. These communities are managed via a dedicated information system or a special branch in the Eionet directory.

European Commission (DG Environment and others): Reportnet is increasingly supporting non-Eionet dataflows. For these dataflows, the coordination happens between different DGs in the European Commission and EEA.