Air Quality e-Reporting
Submission procedures for reporting to Eionet CDR
(updated 24/06/2024)

1. Reporting cycle and deadlines

The Air Quality e-Reporting cycle is shown in Annex 1. Submissions are organised in three separate packages:

- data flows B to G,
- data flows preliminary B (pB) and preliminary C (pC),
- data flows H to K.

1.1. Data flows B to G

By 30 September YY, the EU Member States must report information on Zones, Assessment regimes, Assessment methods and Attainment as well as validated assessment data for YY-1 calendar year under the IPR Decision 2011/850/EU:

- Zones & Agglomeration (data flow B) Article 6
- Assessment Regimes (data flow C) Article 7
- Assessment Methods metadata (data flow D) – for fixed and indicative measurements [1] Art. 8 & 9
- Assessment Methods metadata (data flow D1b) – for models and objective estimation [1] Art. 8 & 9
- Primary validated assessment data - measurements (Article 10) (data flow E1a) Article 10
- Primary validated assessment data - modelled (data flow E1b) Article 10
- Attainment of environmental objectives (data flow G) Article 12

The request for the other EEA member countries not covered by the Air Quality Directive and IPR concerns only:

- Assessment Methods metadata (data flow D) – for fixed and indicative measurements [1] Art. 8 & 9
- Assessment Methods metadata (data flow D1b) – for models and objective estimation [1] Art. 8 & 9
- Primary validated assessment data - measurements (Article 10) (data flow E1a) Article 10
- Primary validated assessment data - modelled (data flow E1b) Article 10

[1] Following agreement by the European Commission and as discussed at the first Technical IPR (TIPR) meeting organised in Copenhagen in April 2016, the D data flow is now split into two envelopes: the D envelope (the title remains the same for internal structure) should be used for reporting meta-information on fixed and indicative measurement while the D1b envelope should be used for reporting meta-information on models and objective estimation. Note that this split of the D data flow does not modify the reporting requirements under Commission Decision of 12 December 2011, but is just intended to simplify the data handling and associated reporting by the Member States.

Note that countries will still be able to report a combined D should they wish (in the 'D' envelope), although this file will not be processed automatically – please inform EEA in advance if you plan to report a D dataset that combines modelled and fixed measurement meta-information in one file/envelope.

These data flows will be **submitted by 30th September YY**. When necessary, e.g. QA/QC check feedback or correction request, resubmissions will follow the procedure described in section 4 of the present document. **With the exception of data flow D, any resubmission done after the deadline (30th September YY) will require explicit justification and prior approval by the Commission** as per art.5 §5 of the IPR Decision 2011/850/EU, before it can be processed by EEA – refer to section 4.

1.2. Data flows preliminary B (pB) and preliminary C (pC)

By 31 December YY, the EU Member States must report under Decision 2011/850/EU on YY+1 prognosis Zones and Assessment regimes.

- Preliminary Information on Zones & Agglomeration (data flow pB) Article 6
- Preliminary Information on Assessment Regimes (data flow pC) Article 7

These data flows will be **submitted by 31st December YY**. As these data concern zones and assessment regimes foreseen for the coming year, it is not considered that these should be subsequently modified. However, when necessary, **resubmission with explicit justification done after the deadline (31st December YY)** following the procedure described in section 4 of the present document, will be done **before 30 March YY+1 upon prior approval by the Commission** as per art.5 §5 of the IPR Decision 2011/850/EU before it can be processed by EEA – refer to section 4. **After this date, any resubmission of pB or pC will be rejected and not processed**.

1.3. Data flows H to K

By 31 December YY, the EU Member States must also report under Decision 2011/850/EU on Air quality plans, Source apportionment, Scenarios and Measures for YY-2:

- Information on Air Quality Plans (data flow H) Article 13
- Information on Source Apportionment (data flow I) Article 13
- Information on the Scenario for the Attainment Year (data flow J) Article 13
- Information on Measures (data flow K) Art. 13&14

If necessary, resubmission of updated details can be done up to YY+4. **However, reporters should contact the AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu) before resubmitting data for previous reporting years.**

2. Tools and support for countries

2.1. The European Air Quality Portal (AQ Portal)

The European Air Quality Portal (or AQ Portal) contains technical details and services that facilitate the reporting of official air quality information from EU Member States and other EEA member and co-operating countries.

This portal is very important for all national reporters as any announcements from the EEA will be made from there and at the portal, users can find detailed description of the data requirements as well as information on quality assurance checks and aggregation rules. Some of the main documents, available in the section Toolbox are:

- the IPR guidance document established by the European Commission (part 1 and part 2),
- the User Guide to XML and Data model,
- the Quality Assurance and Control rules for e-Reporting and
- the Aggregation rules.

Several tools, developed for the AQ e-Reporting system, are also accessible there. They are divided into several categories:

- data flows monitors: these tools allow the reporters to follow the status of their submissions.
- data tables: these tables present the data and information reported with the data flows B to K (also allowing data download).
- data download: these tools allow to download the data contained in the EEA database. This covers mainly E1a and E2a data and part of the meta-information and geometries of zones and agglomerations.
- air quality now: tools dedicated specifically dedicated to E2a – UTD (data flow not covered in the present document).
- data analysis and stats: these tools allow to dig into the data and statistics contained in the EEA databases and to present them either in maps, graphs or tables.
- focus on cities: tools more specifically dedicated air quality in cities.
- compliance status: these tools present the attainment status of zones and agglomerations.
- impact on health: tools dedicated to health risk assessment.

2.2. Reporting systems

RAVEN

RAVEN reporting system is a web-based reporting system initiated and financially supported by the European Environmental Agency (EEA). RAVEN is coordinated and developed by NILU.
RAVEN is an Open-Source Web based Air Quality Data Validation and e-Reporting System, comprising multiple modules that are designed to give the reporters total control over the monitoring data, including a complete metadata inventory. Designed for reporting to ReportNet 2, it follows the correct data format and structure and is fully compliant with the “User Guide to XML & Data Model v3.4” and fulfils the AQ e-Reporting quality checks.

P&P tool for data flows H – K (PaPeRs)

Unless the Member State has developed its own IPR compliant system for H – K data flows, the information for these data flows can also be transmitted in XML files generated by the PaPeRs tool developed by JRC and available at the AQ Portal.

Commercial reporting software tools

Several companies are marketing software tools for reporting and support to countries on a commercial basis. **EEA is unable to offer support if problems are experienced by countries using such third-party reporting tools**.

AQUI - Discontinued

AQUI software was provided by EEA to countries as an interim reporting system for the first two years of reporting of the AQ e-Reporting system. The software was designed to support countries in their reporting while they developed their own national system compatible with the e-Reporting requirements. **Since December 2015, the use of AQUI is not supported by the EEA**.

2.3. AQ e-Reporting helpdesk

In case of problems as well as for any question or clarification related to e-Reporting and the procedures to be followed, please do not hesitate to contact the AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu).

3. Submission and upload to Eionet Central Data Repository (CDR)

The reporting cycle including deadlines for submission and resubmission is graphically presented in Annex 1.

3.1. Delivery

- The countries will deliver all the data flows into the CDR as XML files.
- The date of delivery recognised by EEA is the date of 'effective release' of envelope(s). 'Effective release' means **an uploaded file, which has passed the AQ e-Reporting QA checks in CDR without blockers** (see sections 3.3 and 5).

3.2. Reporting sequence for upload of files

Data flows B to G

There is a sequential series of quality assurance (QA) checks performed on the submitted files as they are uploaded to the Central Data Repository (CDR). Due to the need to perform consistency checks across different data flows, a specific reporting sequence should be followed. The sequence is dictated by the links existing between the different data flows:

- QA checks on data **flow B** are based on the XML delivered.
- QA checks on data **flow D and D1b** are based on the XML delivered.
- QA checks on **data flow C** are based on checks within the delivered XML itself and cross-checks on data submitted (B and D/D1b). This means **data sets B & D/D1b have to be already effectively released (i.e. without any blockers) and imported (harvested) into CDR database**.
- QA checks on **data flow G** are based on checks within the delivered XML itself and cross-checks on data submitted (B, C, D/D1b and E1a) and correctly processed in EEA's Content Registry. It means that you can run cross-checks with B, C, D/D1b, E1a when your data set G is in draft but your **data sets B, C, D/D1b & E1a have to be already effectively released (i.e. without any blockers) and imported (harvested) into the CDR database**.

Countries should therefore release data flows B and D/D1b first, then after a short period (in principle 10-15 min., i.e. time for the system to process B and D/D1b to perform crosschecks) release data flow C and data flow E1a and finally data flow G. This submission sequence is shown in figure below.

Data flows preliminary B (pB) and preliminary C (pC)

The same sequence rules apply to delivery of pB and pC data flows. Please note that **in this case, QA checks on pC will be done based on the information of the latest D/D1b delivered**.

Data flows H to K

Similarly to what happens in data flows B to G, a specific submission sequence should be followed for data flows H to K in order to allow the verification of the links between the data flows by the QA system in CDR. The submission of data flows H to K is supposed to follow a successful submission of data flows B to G for the same reporting year.

Please note that reporters are required to submit each dataset as a single file in a single envelope. The content of each released envelope will replace what was previously delivered for the same reporting year.

The sequence of submissions depends on the links between the data flows:

- QA checks on data flow H are based on the XML delivered and cross-checks on data submitted in data flow G.

- QA checks on data flow I are based on the XML delivered and cross-checks on data submitted in data flows D/D1b, G and H. This means that dataset H must already be released and imported in the EEA Content Registry.

- QA checks on data flow K are based on the XML delivered and cross-checks on data submitted in data flow I. This means that dataset I must already be released and imported in the EEA Content Registry. Please note that the links between data flow K and J are considered redundant because the data model already includes links from J to K in data flow J. Reporters are invited to not include such links as they will not be taken into consideration in the QA checks and will not be imported in the CDR database.

- QA checks on data flow J is based on the XML delivered and cross-checks on data submitted in data flows H, I and K). This means that dataset H, I and K must already be released and imported in the EEA Content Registry.

Countries should therefore release data flow H, then after a short period release data flow I followed by K and finally J. The submission sequence is shown in the below figure.

Data flows H, I and J should describe the AQ Plans reported in a specific reporting year, thus **all the links between these data flows are expected to be resolved in the same reporting year**.

Example:
When submitting the Source Apportionment for 2018 (data flow I) and making a reference to the AQ Plan with LocalID *Plan_A*, the QA checks will look for an AQ Plan with the same LocalID submitted for reporting year 2018. If the AQ Plan *Plan_A* was submitted for reporting year 2016 it will not be linked to the 2018 Source Apportionment and an error will result.

However, Evaluation Scenarios (data flow J) can link to the baseline or projection scenario, to measures in data flow K delivered in previous reporting years. **When referencing a specific measure in data flow J, the link in the CDR database will be made to the most recent delivered measure with the specified LocalID.**

Example:
Measure with LocalID *Measure_A* is delivered for reporting year 2016. Measure with LocalID *Measure_B* is delivered for 2016 and 2018. When submitting the Evaluation Scenario in data flow J for reporting year 2018, referencing measures with LocalIDs *Measure_A* and *Measure_B*, will result in linking *Measure_A* in 2016 and *Measure_B* in 2018.

Reporters are required to submit each data flow as a single file in a single envelope. **The content of each released envelope will replace what was previously delivered for the same reporting year.**

Example:
Submitting a first envelope of data flow H containing *Plan_A* and *Plan_B* and a second one containing a *Plan_B* and *Plan_*C will result in delivering in the CDR database *Plan_B* from the second envelope and *Plan_C*.

Namespace reported in H to K needs to conform to the code listed in the namespace Code list – Namespace (direct access https://dd.eionet.europa.eu/vocabulary/aq/namespace/view) for the reporting country. Reporters using PaPeRs should verify that the namespace is correctly set up in the system.

Please note that links between I and G in different reporting years are not allowed. When the Source Apportionments reported in I are based on analysis made on a previous exceedance situations, the year of the analysis should be specified in the element *aqd:referenceYear* in data flow I.

For all data flows, countries should check import/harvest status of their files using data monitor accessible at the AQ portal, before processing subsequent data sets. In case of problem with data harvesting into CDR databases countries should contact AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu).

3.3. CDR reporting procedure for all data flows

Submission steps are the following (see also figures in Annex 2):

1. Create an envelope and activate the task in draft mode. As 'period' make sure you indicate the year of the data for which you are reporting on:

- Data flows B to G on YY-1 (reporting deadline 30 September YY), indicate YY-1.
- Data flows pB and pC for YY+1 (reporting deadline 31 December YY), indicate YY+1.
- Data flows H to K for YY-2 (reporting deadline 31 December YY), indicate YY-2 or YY-1.

The reporting year indicated in envelope period must be consistent with reporting year under the XML's Reporting Header.

2. Upload your file. As you are in draft mode the file is not publicly accessible and it can be deleted and re-uploaded if needed.

3. Run manually the specific QA checks on data structure which are available for this envelope. The time taken for running the checks is dependent upon the respective data flow and size of file as well as the system's load. However normally feedback should be provided within minutes for an 'average' delivery.

4. Go through the QA results and identify anomalies. In the AQ portal, use the Code list – Quality control and assurance on CDR (direct link: https://dd.eionet.europa.eu/vocabulary/aq/cdrqaqc/view) to get detailed descriptions of the checks.

   - Pay particular attention on those messages in RED corresponding to errors in RED, Regerror in PURPLE or blockers in DARK RED. The presence of blockers will prevent (block) the effective release until the corresponding issues are corrected. The presence of errors and/or Regerrors will trigger a request for correction, automatically produced for data flows C, pC, D/D1b, G, H, I J and K after release, i.e. this will not block the release of the envelope.
   - The warnings in ORANGE are other problems which need your attention. These will not prevent the release of the envelope and will not trigger a correction request. However, they could have knock on effects concerning QA for other data flows as well as later feedback and data processing.

5. Review and correct any errors and anomalies: you can delete the data file from the envelope in draft, reload a new (corrected) data file, and then rerun the QA checks. Iterate as needed.

6. When you are satisfied with the delivery content, 'release' the envelope. Please note that releasing the envelope is not possible if the manual QA checks (step 3) have not been run at least once. When the 'Release' button is clicked, checks will run automatically with automatic feedback posted back in the CDR envelope. The envelope will be effectively released only if no blockers are detected.

   If blockers occur, an error message is issued and the envelope will be automatically turned back in draft mode. If no blockers occur, the delivery will be 'effectively released' and a confirmation will be posted in the CDR envelope together with the automatic feedback. Once 'effectively released' countries no longer have the possibility to revoke the envelope into draft mode.

7. Before processing subsequent data sets, please check import/harvest status of the uploaded files using data monitor accessible at the AQ portal. In case of any problem with data harvesting into CDR databases please contact AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu).

8. Once ‘effectively released’, data files will then go through the final step.

- For the data flows C, pC, D/D1b, G, H, I, J and K, the process is automatic: the CDR envelope is finalised with or without request for corrections posted in the envelope, depending on the results of the automatic checks.
- For data flow E1a, this step is similar but aside from the fact that there will be no correction request whatever errors and warnings found by the automatic checks. All E1a envelopes will automatically be finalised by 1 October (submission deadline being 30 September) and, by default, unless unvalidated by the reporter (see below) the final status of the envelopes will correspond to “Technically accepted” which means that the data can be used for the AQ report and other EEA official products.
  NOTE: The EEA provides tools which allow the reporters to verify, before the deadline of 30th September the correctness and completeness of the submission. The tools include data quality reports from the automatic checks in CDR as explained above, as well as viewers available at the AQ Portal. Please consult the technical note ‘How to follow and check submissions’ in the toolbox section of the AQ Portal .
  If considered necessary, the reporter has the possibility to invalidate the submission for use in AQ reports by clicking the button ‘Not to be used for AQ report’ in CDR. By doing so, the final status of the envelope will be set to a status corresponding to end but with an associated correction request; the data will not be used in the AQ report and other official EEA products. They 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 submitted together with a justification.
- For the data flows B and pB, this step remains partly a manual process. So, countries should be aware that this step can take up to several days following submission of the relevant files. This step will lead to the completion of the CDR envelope with or without a request for corrections posted in the envelope.

Regardless of any potential request for corrections at this stage, the envelope will then be finalised, and the data imported in the EEA’s system. The B, C, D and G data will be available in the system outputs (data viewers) after 24 hours (Note: it might be more in peak reporting periods). The statistical viewers including the statistics (F) automatically calculated from the validated measured data (E1a) are updated once a week (Monday evenings) up to every day during the reporting period.

4. Resubmission of data flows

The reporting cycle including deadlines for submission and resubmission is graphically presented in Annex 1.

4.1. Concepts

- For any resubmission, the European Commission requires countries to describe the differences between the updated and original information and provide the reasons (justification) for the update (i.e. as per Commission Implementing Decision 2011/850/EU, Article 5). This can be done by including the required information in a Word/PDF document and including this within the respective envelope together with the re-submitted data flow (see also section 4.2).
- Resubmission deadlines are:
  - The reporting deadline for data flows B, C, D/D1, E1a, E1b and G is 30 September YY. Any resubmission done after this date will be processed only if the justification provided is accepted by DG Env.
  - The reporting deadline for data flows pB and pC is 31 December YY. Any resubmission done after this date will be processed only if the justification provided is accepted by DG Env. Resubmission done after the 31 March YY+1, justified or not, will NOT be processed.
  - For data flows H to K: at present, no resubmission deadline (in practice YY+4; if later contact the AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu)).
- The following rules for resubmission must be respected:
  - Any resubmission (updated or corrected data file) will have to be made in a new envelope.
  - For all data flows except E1a and E1b, always redeliver the whole data set and not only the modified/corrected part.
- In case of correction of data flows E1a:
  - If you have invalidated submission by clicking the button 'Not to be used for AQ report' in CDR, redeliver the complete data set corresponding to the one in the invalidated envelope – to make sure that it will be used in the AQ report.
  - If you would like to correct just one of many files, redeliver the corrected part only.
- In case of correction of data flow E1b, redeliver either the complete data set or the corrected part only.
- If relevant follow the sequence B, C, D/D1b, E1a/E1b, G or H, I, K and J when resubmitting.

4.2. Provision of justification for resubmissions

Following the provision of Art.5 of the Implementing Decision 2011/850/EU, all resubmissions must be accompanied by a justification letter explaining the reason for resubmitting as well as details on the modifications/correction done.

However, in case the resubmission follows a request for correction as explained in the submission procedure (section 3.3), the justification for resubmission can simply refer to the feedback report earlier produced together with the correction request.

NOTE: The justification document must be uploaded in the CDR envelope together with the corrected data flow file.

In case of data resubmissions for data flows B to G as well as pB and pC done after the corresponding deadlines, the reporter will have no possibility to release the envelope himself. The only possibility will be to press the button 'Justification provided' which will trigger an automatic email to

the European Commission (ENV-AIR@ec.europa.eu)

with AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu) in CC

informing the European Commission and the EEA that a resubmission has been made. The resubmission will only be released and processed by EEA – ETC HE after receiving confirmation from the European Commission that there are sufficient grounds for the resubmission. For more details on the resubmission process, please consult the technical note 'Guidelines for submitting after the official deadline' in the toolbox section of the AQ Portal.

Please note that the Commission might need to re-assess the content of any specific submission throughout the reporting year. If shortcomings on the information provided by the MS are then detected, the Commission will contact the MS by email to ask for further clarification.

4.3. Specific provision for the resubmission of H to K

For each data flow (as necessary), resubmit, in one single envelope, a single XML file containing both the unmodified and modified elements previously delivered.

If the previous delivery contained multiple XML files, submit one single file by merging the modified files with the unmodified ones (if any).

5. Automatic QA checks

A number of automatic quality checks are performed by the Eionet CDR system to ensure the integrity of the data reported under air quality e-Reporting. These checks are categorised as:

- 'Blocking' issues – critical errors that prevent the submitted file being accepted and processed by the e-Reporting system. Countries must correct the identified issue and redeliver the respective data flow.
- 'Regerror' – a special type of errors linked to legal requirements.
- 'Errors' – issues which will trigger a request for correction after release for most of the data flows.
- 'Warnings' – non-critical issues that do not prevent the processing of the reported data flow, but which need to be checked by country experts.
- Information items – a summary of certain reported information and key parameters e.g. number of zones reported.

As few 'blocking' checks are applied as possible. These checks only identify certain critical problems following two key principles:

- the identified problem prevents the data being correctly processed by the air quality e-Reporting system;
- the identified problem indicates that an important inconsistency with another data flow occurs.

The blocking issues pertain to the following categories:

- 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 QA checks.

These blockers are necessary to avoid importing incoherent data and information in the EEA database. The full list of QA checks is accessible here.

6. Good practice requirements

6.1. Naming envelopes on Eionet CDR

For clarity, follow unambiguous rules and common sense in naming your envelopes and data files on Eionet CDR. It is always recommended to include the reporting year as well as a version number (instead of e.g. using adjective such as corrected_final, final_2, final_correct_1 etc.)

Example:

Envelope name	Data flow name
DataFlow D 2023	DataFlowD_2022.xml
DataFlow H 2023	DataFlowD_2021.xml

6.2. Envelope period

Make sure to indicate the correct reporting year. The reporting year is the year you are reporting on. So, this means for the different deliveries and data flows:

September delivery YY:	data flows B to G	on YY-1
December delivery YY:	data flows pB and pC	on YY+1
December delivery YY:	data flows H to K	on YY-2 or YY-1

The envelope (start) year must be equal to the year specified in gml:beginPosition element (in aqd:AQD_ReportingHeader). If you specified also the end year on the envelope - it must be equal to the year given in gml:endPosition element (in aqd:AQD_ReportingHeader).

If you need to correct the year on the envelope, you can do this in 'Edit properties' tab.

6.3. Local IDs

Local IDs must be:

- UNIQUE through history and YEAR INDEPENDENT
  Example:
  for pB, B & D,
  e.g. for 2020: ZON_XX0104 and SP_XX8781_7_8, in 2021, if the objects remain the same, they have the same local Ids: ZON_XX0104 and SP_XX8781_7_8

- UNIQUE through history and YEAR SPECIFIC
  Example:
  for pC, C & G,
  e.g. for 2020/2021:
  ARE_XX0108_20_LV_H_aMean_2020 and ATT_XX0108_20_LV_H_aMean_2020, in 2021 they must have new local Ids, e.g.: ARE_XX0108_20_LV_H_aMean_2021 and ATT_XX0108_20_LV_H_aMean_2021.

WARNINGS

LOCAL ID's WHICH ARE UNIQUE THROUGH HISTORY AND YEAR INDEPENDENT SHOULD ONLY BE CHANGED IF THE OBJECT ITSELF HAS CHANGED.

DO NOT CHANGE THEM UNLESS STRICTLY NECESSARY AND ONLY AFTER HAVING PREVIOUSLY CONTACTED THE EEA.

IF YOU CHANGE THE SAMPLING POINT LOCAL ID's, PLEASE REPORT SYSTEMATICALLY THE LOCAL IDs WHICH ARE CHANGED BY USING THE ELEMENT 'ef:supersedes'.

6.4. Delivering data flows from previous years

Once you have delivered your files for the latest reporting year, do not re-deliver data flows for previous years without contacting the AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu) first.

6.5. Year specific and year independent data flows

pC, C and G are year specific which means that they contain data and information only for the specified reporting year. Similarly, data flows H, I, J are year specific because they contain information describing AQ Plans delivered in a specific reporting year. All references between these data flows should be resolved in the same reporting year. Measures declared in data flow K are still reported in envelopes related to the year they were developed, however they could be referenced by Evaluation Scenarios in J in future reporting years.

pB and B are year independent although the attributes might change from year to year (e.g. population number may change from one year to another). Data flows pB and B may contain exactly the same zones (with the same local Ids) as in previous years if there are no changes in zoning.

D is also year independent and is not specific to the reporting year: it contains the most up-to-date information including the historical meta-information on measurement techniques, sampling points, stations and networks as well as the information for the coming year. Do not forget that D is used to accept UTD data as well as pC which means that it might/must contain up-to-dated meta-information and not only the meta-information strictly necessary for YY-1 and YY reporting years. However, the start year in D data set (gml:beginPosition in element aqd:AQD_ReportingHeader) should be always equal to the reporting year (YY-1), independently from how far in the past it goes. The end year (gml:endPosition in element aqd:AQD_ReportingHeader) can be the current or future year, e.g. if you include data corresponding to your UTD it will be YY, if you include the preliminary reporting for next year, the end year will be YY+1.

6.6. More than one Observing Capabilities at the same Sampling Point

Keep in mind that if you report **more than one Observing Capabilities** within the same Sampling Point with corresponding time series, they **should not overlap in time**.

6.7. Reporting BaP and heavy metals

The code corresponding to **BaP** and **heavy metals** monitoring performed in line with the AQ Directive are shown below and can be found in the Code list – Air quality pollutants (direct link: https://dd.eionet.europa.eu/vocabulary/aq/pollutant/view):

- 5012 Pb in PM10
- 5013 Hg in PM10
- 5014 Cd in PM10
- 5015 Ni in PM10
- 5018 As in PM10
- 5029 BaP in PM10

Make sure to use the proper codes in a consistent way throughout the different data flows pB, pC and B to G.

6.8. Update data in E1a

Resubmit the time series to be updated (see resubmission procedure). The new data will overwrite the previous ones. Note that inside the XML file the tag om:resultTime should report the time when the XML output was generated for each om:OM_Observation. When resubmitting E1a, **data from each observation will be uploaded only if om:resultTime is more recent than the value in CDR database for the same observation**. Otherwise, the new data will not replace previously reported time series.

Keep also in mind that **E1a overwrites E2a**.

To "delete" data indicate "-999" as value and set the validity flag to -1. By doing so, these "deleted" data will not be used for any further processing including aggregation and statistics calculation.

6.9. Deleting a sampling point and its associated time series in E1a

Remove the meta information (Sampling Point and Observing Capability) associated to the time series in D. By doing so, the new D will be blocked on release, and you will be asked to confirm the deletion. Once your confirmation received, we will release the new D. The corresponding data in E1a will then become "orphan" in the air quality e-Reporting system and will not be used for any further processing and use.

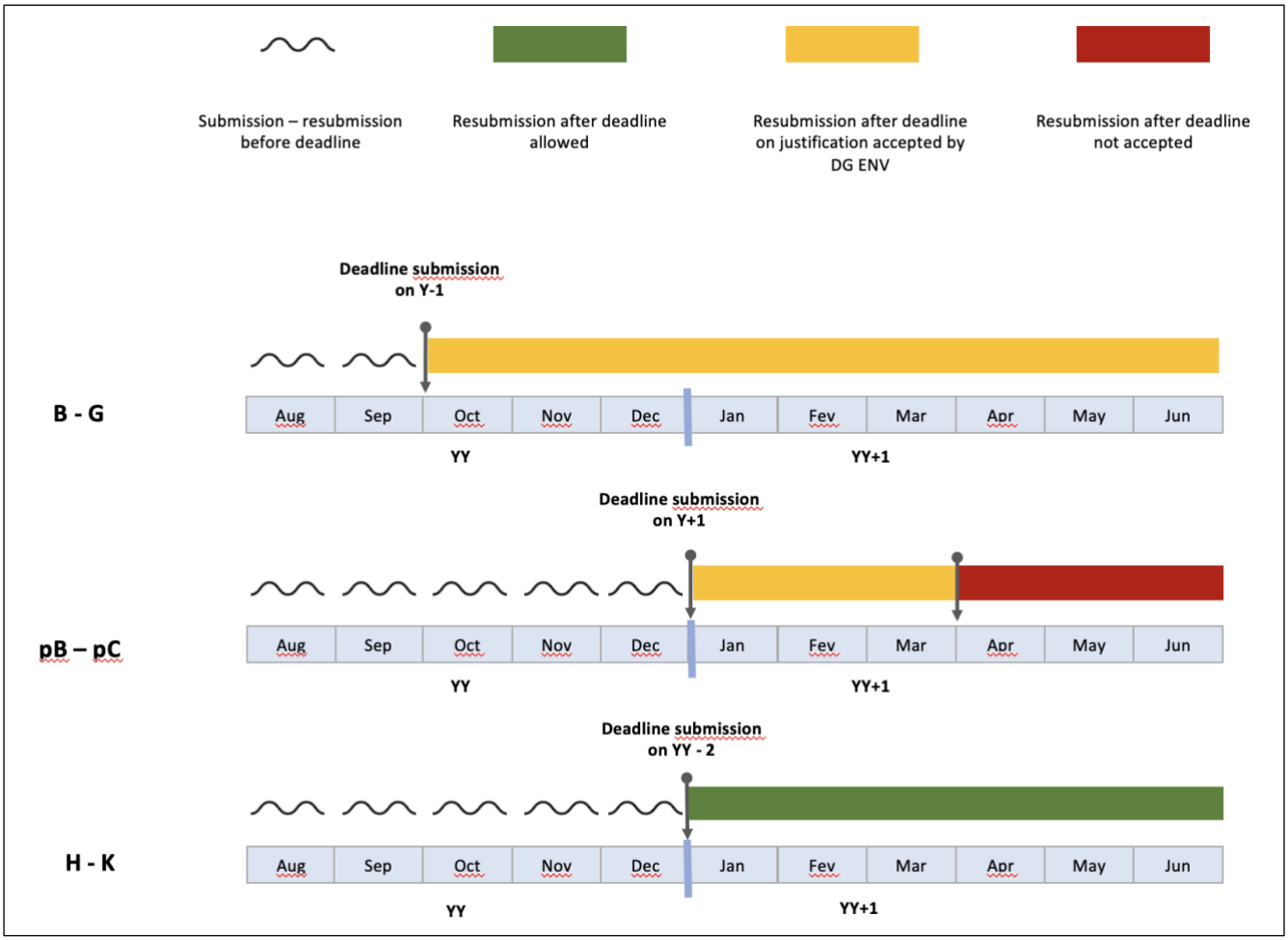
6.10. Reporting data in E1a with different sampling durations (element primaryObservation: day, hour, var)

Report the data in separate data array blocks corresponding to the different sampling durations. All the data within one block must have the same sampling duration. Make sure that the different blocks do not overlap in time otherwise the submission will be blocked.

7. Helpdesk

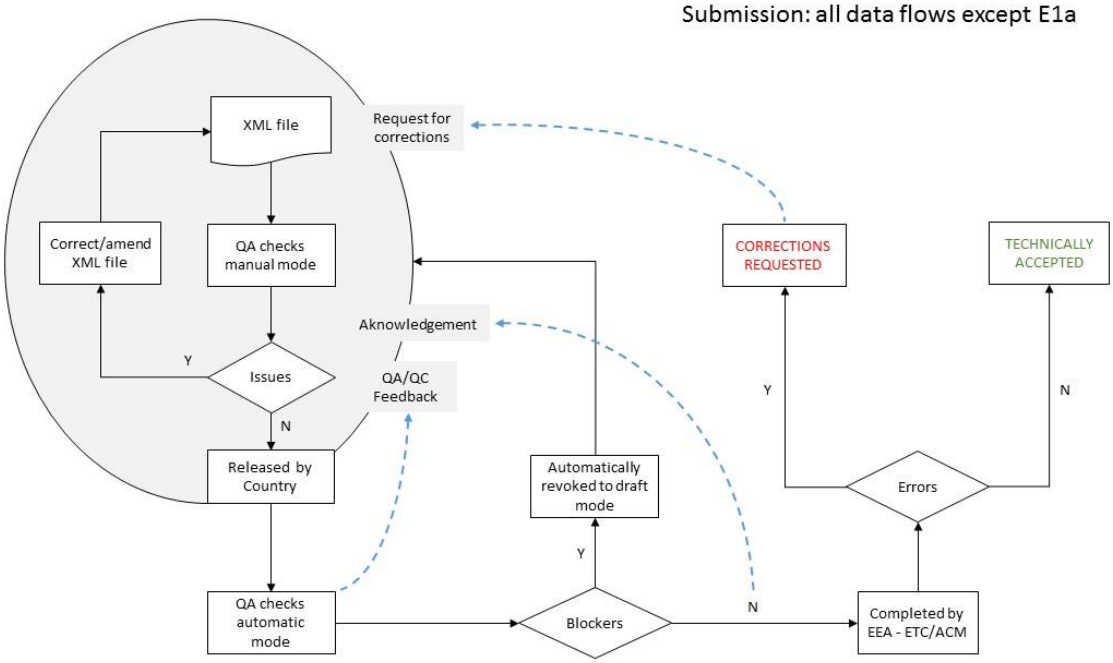
In case of problem as well as for any question or clarification related to e-Reporting and the procedures to be followed, please do not hesitate to contact the AQ e-Reporting helpdesk (aqipr.helpdesk@eionet.europa.eu).

Annex 1: AQ e-Reporting cycle and deadlines

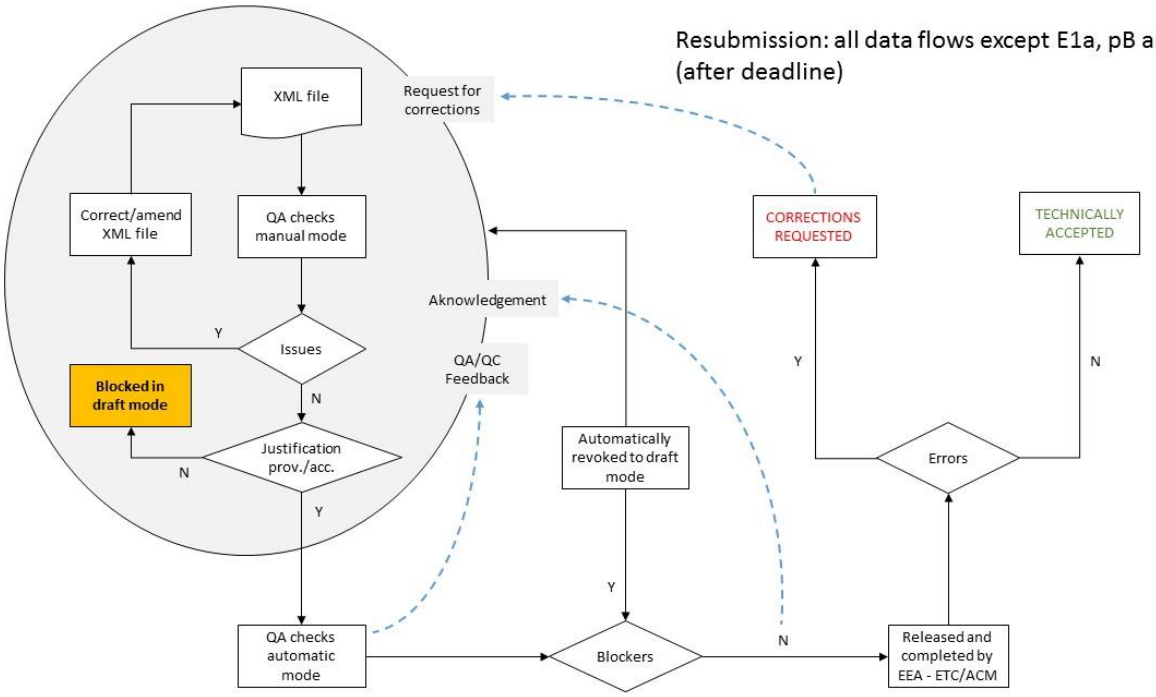


Annex 2: Submission – resubmission procedure

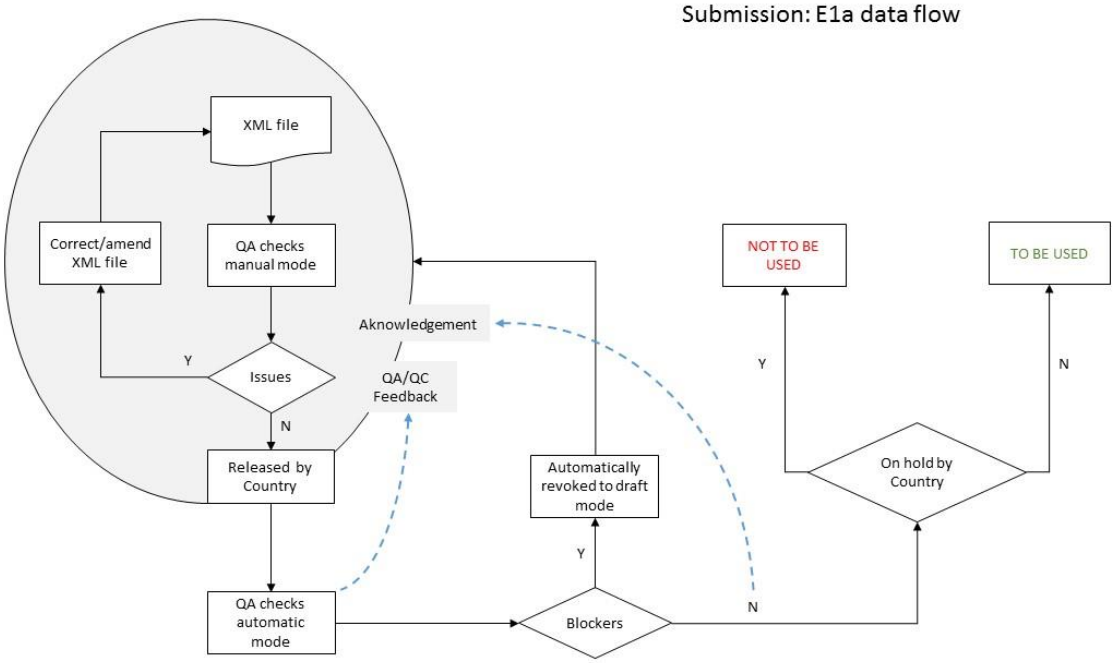
Submission: all data flows except E1a



Resubmission: all data flows except E1a, pB and pC (after deadline)



Submission: E1a data flow



Resubmission: E1a data flow (after deadline)