



QA/QC: Summary of improved checks & improvements for 2021 reporting





QA/QC – KEY elements to “TAKE HOME”

- PAY ATTENTION TO “Data quality” results when submitting XMLs

Overview Edit properties Manage workflow history History **Data quality**

Results of automatic data quality checks

This page displays summary information from all automatic data quality checks for this envelope. If you want to see more detailed results, just follow the "Show more.." links to the individual feedback items.

ES_H_PPs_2018.xml

- **ERROR:** This XML file did NOT pass the following ERROR check(s): H26 [Show more...](#)
- **INFO:** XML Schema validation passed without errors. [Show more...](#)



QA/QC – KEY elements to “TAKE HOME”

- QA in CDR requires CROSS-checks between data-flows
- IF an XML is not RELEASED and ACCEPTED, the data in the XML is not HARVESTED
- Errors might exist in “I” if “H” is not released



QA/QC – KEY elements to “TAKE HOME”

- If unresolved issues:
- *DO NOT JUST LEAVE ENVELOPES IN DRAFT*
- **CONTACT US on AQD IPR e-Reporting Helpdesk:**
aqipr.helpdesk@eionet.europa.eu
- **ASK US FOR A BILATERAL MEETING**



QA/QC

- Importance of qa/qc
- Reminder of categories
- On-going improvements on H-K
- Key links between H-K & order of submission
- Improvements & updates on H-K



Check categories

reminder!!!

- Categories:
 - BLOCKER
 - ERROR
 - WARNING
 - INFO
 - OK
 - SKIPPED



Check categories

reminder!!!

- **BLOCKER:**

- **A critical error.** The envelope can not be released. Normally, a blocker is an error in the format of the file, or in the structure or content of the data. Such a critical error makes it impossible for the delivery to be harvested and integrated into the database. The envelope can only be released if every incorrect file is removed and replaced by corrected files.



Check categories

reminder!!!

- **ERROR:**
 - **An important error.** The envelope can be released, but part of its content may be excluded from the European database
 - Data Reporters are strongly advised to correct errors.
 - A clarification or a resubmission **WILL** be requested, when the data is processed and the final feedback is added to the envelope.



Check categories

reminder!!!

- **WARNING :**

- **An issue that may be an error.** Data Reporters are advised to check the correctness of the records or values that raised the warning. The envelope can be released.
- Data Reporters are strongly advised to check warnings.
- A clarification or a resubmission **MAY** be requested, when the data is processed and the final feedback is added to the envelope.



Check categories

reminder!!!

- **INFO:**
 - Other issues related to the quality of the data or content of the submission.
 - The envelope can be released.



Check categories

reminder!!!

- OK:
 - The automatic QC did not detect quality issues.
 - The envelope can be released.



Check categories

reminder!!!

- **SKIPPED:**
 - Data check has been executed, but there was "Nothing found to check", typically because of missing optional data



Improvements on QA in 2020

- Constant review to ensure QA works 100%
- Improvements on small bugs
- Improvements on important bugs on cross-checks
- Substantial improvement on EEA's infrastructure:
 - Better and quicker cross-checks
 - Minimise unexpected errors
 - Improve individual times, quicker envelope runtime, less backlog...



Query	Process time in milliseconds	Process time in seconds
Common Variables	1092 ms.	1.092 s.
NS	0 ms.	0 s.
VOCAB	0 ms.	0 s.
K0	2759 ms.	2.759 s.
K01	0 ms.	0 s.
K02	0 ms.	0 s.
K03	656 ms.	0.656 s.
K04	1 ms.	0.001 s.
K05	0 ms.	0 s.
K06	0 ms.	0 s.
K07	0 ms.	0 s.
K08	0 ms.	0 s.
K09	0 ms.	0 s.
K10	40 ms.	0.04 s.
K11	2133 ms.	2.133 s.



Improvements on QA in 2020

H03

Compile & feedback upon the total number of updated plans records included in the delivery. BLOCKER will be returned if XML is an update and ALL localId (100%) are different to previous delivery (for the same YEAR).

6 issues
found [Hide records](#)

gml:id	aqd:inspireId	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/PPs_ES0901_ES0902_PM10_NO2_2018	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/PPs_ES1308_NO2_2018	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/Pps_ES0118_NO2_2018	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/PPs_ES0128_PM10_2018	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/PPs_ES0307_PM10_2018	Sparql
ATTR_PP_s_ES0901_ES0902_PM10_NO2_2018	ES.BDCA.AQD/PPs_ES1301_NO2_2018	Sparql



Improvements on QA in 2020

SPARQL endpoint

Operations

[SPARQL Functions](#)

Query:

```
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX aqd: <http://rdfdata.eionet.europa.eu/airquality/ontology/>
PREFIX aq: <http://reference.eionet.europa.eu/aq/ontology/>
PREFIX dcterms: <http://purl.org/dc/terms/>
PREFIX rod: <http://rod.eionet.europa.eu/schema.rdf#>

SELECT ?subject ?declaration year(?startOfPeriod) as ?reportingYear
WHERE {
  VALUES ?label { 'ES.BDCA.AQD/PPs_ES0901_ES0902_PM10_NO2_2018' }
  GRAPH ?source {
    ?subject a aqd:AQD_Plan .
    ?subject aqd:inspireId ?inspireId.
    ?inspireId rdfs:label ?label.
    ?inspireId aqd:namespace ?name.
    ?inspireId aqd:localId ?localId.
  }
  ?source dcterms:isPartOf ?envelope .
  ?envelope rod:startOfPeriod ?startOfPeriod .
  ?subject aqd:declarationFor ?declaration .

  FILTER ( year(?startOfPeriod) = 2018 )
}
```

Output format:

HTML

Hits per page

20

Use owl:SameAs ☐

Execute

2 items found, displaying all items.1

subject	
http://cdr.eionet.europa.eu/es/eu/aqd/h/envx8iia/ES_H_PPs_2018.xml#ATTR_PPs_ES0901_ES0902_PM10_NO2_2018	http://reference.eionet.europa.eu/aq/ontology/aqd:AQD_Plan
http://cdr.eionet.europa.eu/es/eu/aqd/h/envx9c0cg/ES_H_PPs_2018.xml#ATTR_PPs_ES0901_ES0902_PM10_NO2_2018	http://reference.eionet.europa.eu/aq/ontology/aqd:AQD_Plan



Improvements on QA in 2020

- Enable EEA to harvest & process data
- Ensure linkages between H-K to B-G are correct
- Ensure data makes sense and data can be used



Improvements on QA in 2020

- One XML per ENVELOPE

Files in this envelope			
1	ES_H_PPs_2017.xml	04 Dec 2019	75.3 KB
Feedback for this envelope			
	AutomaticQA result for file ES_H_PPs_2017.xml: Check Obligations		
	AutomaticQA result for file ES_H_PPs_2017.xml: XML Schema valid		
	AutomaticQA result for: AirQuality Dataflow H (Posted automatically)		
	Confirmation of receipt (Posted automatically on 11 Dec 2019)		
	Technically accepted (Posted automatically on 11 Dec 2019)		

Files in this envelope	
1	H DE DEZDXX0001A Muenchen 2019 2020 10 27 12 23 922.xml
2	H DE DEZDXX0001A Augsburg 2019 2020 10 14 14 03 746.xml
3	H DE DEZDXX0001A Muenchen 2004 2020 10 14 14 08 131.xml
4	H DE DEZIXX01015A Muenchen 2012 2020 11 02 11 34 715.xml
5	H DE DEZIXX0105A Muenchen 2018 2020 11 02 10 33 570.xml
6	H DE DEZIXX01015A Muenchen 2017 2020 11 02 10 49 654.xml
7	H DE DEZIXX01015A Hildesheim 2008 2020 11 02 10 47 44.xml
8	H DE DEZJXX0006A Bochum LRP Ruhrgebiet TP Ost 2011 2020 1
9	H DE DEZNXX0001A Leipzig 2019 2020 08 03 13 38 888.xml



Improvements on QA in 2020

- One XML per ENVELOPE
 - Ensure completeness
 - Compare with previous submissions
 - Track re-uploads



Improvements on QA in 2020

- LATEST envelope per YEAR
 - Same philosophy as B-G
 - Ensure completeness
 - Improve cross-checks
 - Allows for error free re-uploads



Upgrade/downgrade “Error type”

- H10, I10, J10 & K10 Blockers — ensure correct namespace
- Checks linkage to EEA’s vocabulary are Blockers
- H12 Blocker: Plan MUST link correctly to an ATTAINMENT (G) **
- I11 Blocker: Source Apportionment MUST link correctly to an AQ Plan (H) **
- I12 Blocker: Source Apportionment MUST link correctly to an ATTAINMENT (G) **



Upgrade/downgrade “Error type”

- K11 Blocker: Measures MUST link correctly to a Source Apportionment (I) OR an ATTAINMENT (G) **
- K12 INFO: if measures are link to Evaluation Scenarios (J), it needs to be correct.



Upgrade/downgrade “Error type”

- J11 Blocker: Evaluation Scenario MUST link correctly to an AQ Plan (H) **
- J12 Error/blocker: Evaluation Scenario shall link to Source Apportionment (I) **



Upgrade/downgrade “Error type”

- Evaluation scenarios MUST link correctly with Measures (K) both**
 - J27 baseline measures
 - J32 projection measures
 - (Latest envelope per year!)



Improvement on H-K

- Improve speed
- Correct output layout
- Small bugs
- Ensure cross-checks function



Improvement on linking to SamplingPoint

- Important improvement on I30 to I32
 - When linking to Sampling Points majority of countries incorrectly link to Stations EoiCode (not even Station localid).

Like in G -> aqd:stationUsed MUST link to SPO



Improvement on H-K (2021)

- On-going analysis to detect issues with reported data & links
- On-going analysis to detect bugs in qa
- Improve existing bugs in some checks



Improvement on H-K (2021)

- Ensure completeness of envelopes
- Allow the re-use of measures already submitted (latest envelop year!)



Any Questions?



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B-G

H-K

2014

G -Attainments
Exceedante = T

H
Plans

I
J

K
Measures

2016

G -Attainments
Exceedance = F

Continue

2018

G -Attainments
Exceedance = F

B-G

H-K

2014

G -Attainments

2nd

submission

Correction



Exceedance continues

2016

G -Attainments



**If information
update, you
submit**

Continue

2018

G -Attainments

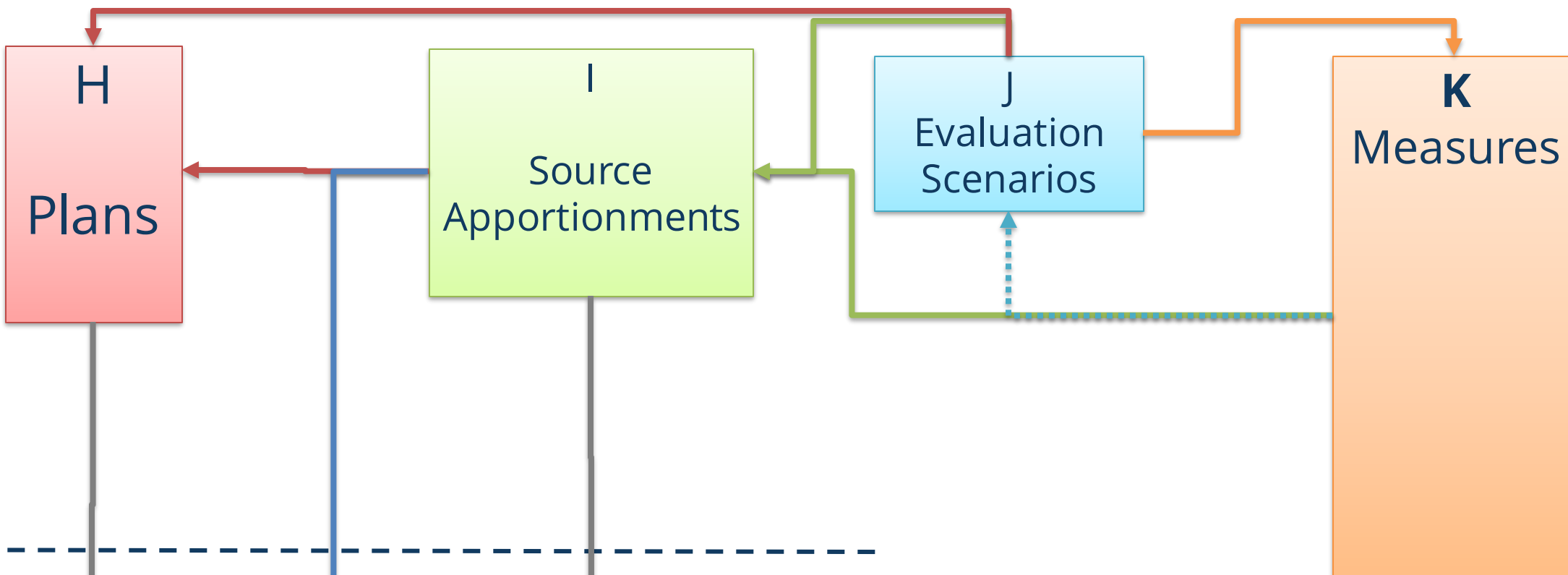


**If information
update, you
submit**



Crosschecks between H-K – Submission order!

H-K



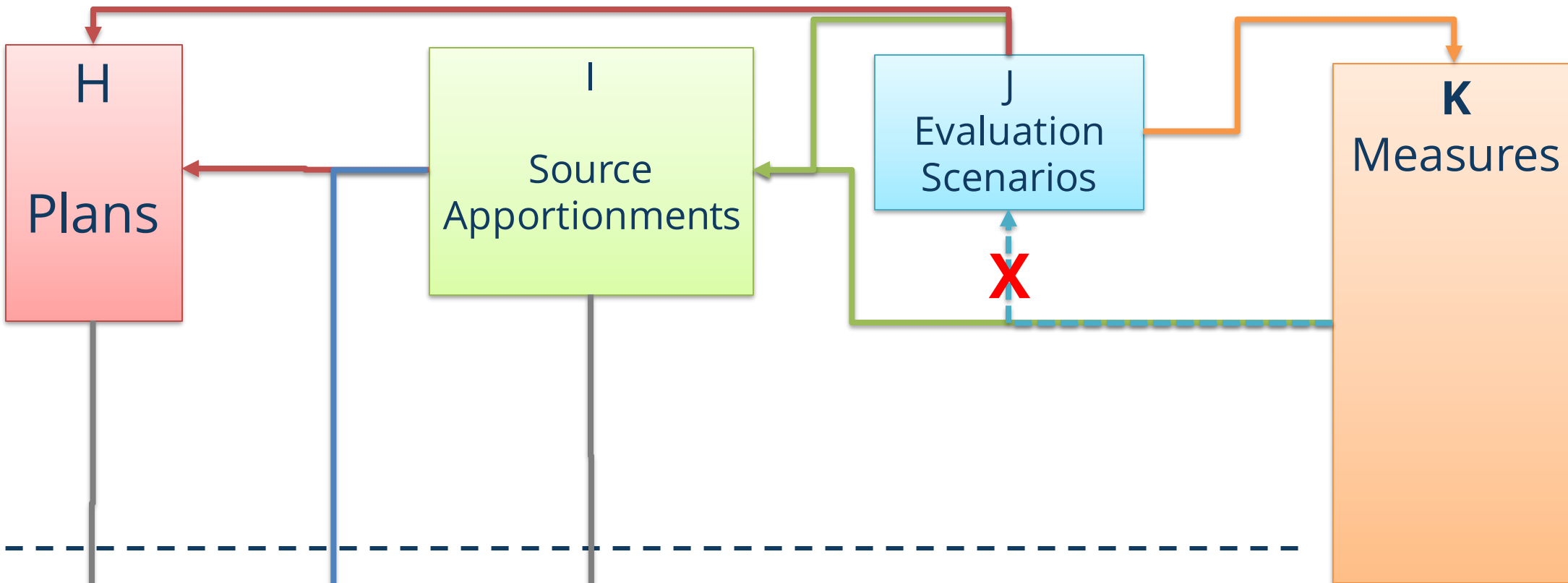
B-G



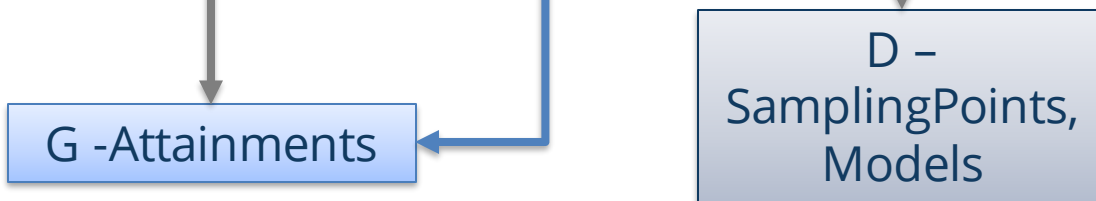


Crosschecks between H-K

H-K



B-G





Crosschecks between H-K

H-K

B-G

