

## Update of IPR AQ schema version 1.0 – *final*

**Date: 30/03/2017**

This document briefly describes changes from 1.0.7 to 1.0.8

Expert included:

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**Revisions comments by:** Artur Gsella and Michel Houssiau (EEA), Jaume Targa, Tony Bush, Katharina Scheleidt, Barbara Magagna, Rune Ødegård, Patrick van Hooydonk, Wim Mol (ETC/ACM)

**Comments from countries:** UK, Germany and Luxembourg

This document, summarises any updates agreed. Please see original review for elements with NO CHANGE agreed. The table below includes:

- Element investigated
- Element number according to IPR mapping document
- Comment
- Change/Possible impact
- Decision on whether to implement the change in 2016/2017

Element investigated	No.	Comment	Change/Possible Update	Possible Impact	Conclusion						
<b>B - AQD_Zone</b>											
No changes											
<b>C - AQD_AssessmentRegime</b>											
.../aqd:zone	C.1	In order to improve reporting for pollutants with monitoring objectives at MS level (e.g. AEI, ozone precursors, deposition, additional PAH) , aqd:zone should be improved #18061	Make aqd:zone in C voidable in the schema  Countries already use: <aqd:zone nilReason="inapplicable"/>	Impacts on existing systems negligible. This change will ensure that all MO assessments at a national level are reported in the same way. Highly beneficial.  <table border="1"> <tr> <td>EEA</td> <td>Low</td> </tr> <tr> <td>JRC</td> <td>None</td> </tr> <tr> <td>Countries</td> <td>Low</td> </tr> </table>	EEA	Low	JRC	None	Countries	Low	<b>ELEMENT MADE VOIDABLE</b>
EEA	Low										
JRC	None										
Countries	Low										
<b>D – Fixed measurement metadata</b>											

	Element investigated	No.	Comment	Change/Possible Update	Possible Impact	Conclusion						
Assessment methods – fixed/indicative measurements (D)	AQD_SamplingPoint/ aqd:assessmentType	D.4.2	Definition of fixed/indicative can vary depending depending on data coverage. Currently, it is recommended to use the intended type, however, this is not very stable and can cause confusion if country update it every year... (Indicative measurements are likely to be stay indicative unless important configuration is done (better process; more measurements etc...)).	assessmentType is already defined in C taking into account yearly variation. Delete this element it will be clear from the process information what sort of measurement it is.	<table border="1"> <tr> <td>EEA</td> <td>Low</td> </tr> <tr> <td>JRC</td> <td>None</td> </tr> <tr> <td>Countries</td> <td>Low</td> </tr> </table>	EEA	Low	JRC	None	Countries	Low	Agreed to change cardinality 1 to <b>CARDINALITY IS 0 TO 1</b>
	EEA	Low										
	JRC	None										
	Countries	Low										
AQD_SamplingPoint/ aqd:usedAQD	D.5.1.8	Team's views this element as largely redundant. DfC defines what is used for compliance, EOI etc. DfD is just a list of measurements that have been operating	Delete make voluntary	<table border="1"> <tr> <td>EEA</td> <td>Low</td> </tr> <tr> <td>JRC</td> <td>None</td> </tr> <tr> <td>Countries</td> <td>Low</td> </tr> </table>	EEA	Low	JRC	None	Countries	Low	Agreed to change cardinality 1 to <b>CARDINALITY IS 0 TO 1</b>	
EEA	Low											
JRC	None											
Countries	Low											
AQD_SamplingPoint/ aqd:environmentalObjective	D.5.1.9	Redundant/Duplication of information	This is already in C. This information is essential in C not D	This simplifies reporting. However, it is included in the IPR Decision	Agreed to change. However, cardinality <b>KEPT as 0..*</b>							
<b>AQD_SamplingPoint</b>												
	AQD_SamplingPoint/ aqd:changeAEIStations	D.5.1.10	This is a free text element which does not add much	Any updates on AEI stations should be tracked via		Agreed to change.						

Element investigated	No.	Comment	Change/Possible Update	Possible Impact	Conclusion
		value. <a href="#">#69311</a> The way D & C are implemented	dataflow C were MS provide clear link for SamplingPoints used for AEI calculation		However, cardinality <b>KEPT as 0..1</b>
AQD_SamplingPoint/aqd:assessmentMethodWSS	D.5.5.1	Not appropriate element. This was solved in v1.0 adding aqd:adjustmentMethods	aqd:adjustmentMethods added in v1.0 Should this element be deleted?		Agreed to change. However, cardinality <b>KEPT as 0..1</b>
AQD_SamplingPoint/aqd:assessmentMethodNS	D.5.5.2	Not appropriate element. This was solved in v1.0 adding aqd:adjustmentMethods	aqd:adjustmentMethods added in v1.0 Should this element be deleted?		Agreed to change. However, cardinality <b>KEPT as 0..1</b>
aqd:adjustmentMethods	D.5.5.3	This element is there to be able to link (for example) a SamplingPoint with the method used for NS or WSS. However, this must be provided at G level. Is it necessary at SPO. Specially when the adjustmentMethod might change every year  <a href="#">#70173</a>	Agree on a methodology in reporting those Assessment Methods for WS & NS. Current guidance is to use. Currently in UG “ <i>The ef:involvedIn element is a voluntary INSPIRE information element which provides information on activities the Sampling Point is involved in. Within AQ e- ©Reporting it can be used to indicate where a sampling point is involved in e.g. estimation of the AEI,</i>		Agreed to change. However, cardinality <b>KEPT as 0..1</b>

	Element investigated	No.	Comment	Change/Possible Update	Possible Impact	Conclusion
				winter-°@sanding or – salting, nature sources calculation, EMEP monitoring etc.”		
	AQD_SamplingPoint/ aqd:zone	D.4. 3	As discussed since day one this element is wrongly placed. Also it generates redundant information	This should be deleted. A samplingPoint may belong to different zones. Linkage between SamplingPoints and Zones are done in C.	However, this is included in IPR (Annex II, Part D,i,4)	Agreed to change. However, cardinality <b>KEPT as 0..*</b>
	<b>AQD_SamplingPointProcess</b>					
	aqd:dataQuality	D.5. 1.6. 5	Not mandatory if not AQD_used	Should be made voidable		<b>ELEMENT MADE VOIDABLE</b>
Assessment methods – model/objective	<b>AQD_Model</b>					
	.../aqd:environmentalObjective	D.7. 2.8	Redundant/Duplication of information	This is already in C. This information is essential in C	This simplifies reporting. However, it is included in the IPR Decision	Agreed to change cardinality 1 to <b>CARDINALITY IS 0 TO *</b>
	.../aqd:assessmentType		Essential information to distinguish model & Expert Judgement	Need extra guidance. When does a model become Expert Judgement and vice versa	Example: UK has a model for NO2 annual mean. However, if not sufficient SamplingPoints with adequate data capture, an empirical relationship between NO2 annual/NO2 max hourly is used to assess against this	Kept to distinguish between model & expert judgement. Cardinality <b>KEPT as 0..1</b>
	.../aqd:usedAQD	new	This element is missing in AQD_Model <a href="#">#20643</a>			Add with cardinality 0..1
	<b>AQD_ModelArea</b>					

	Element investigated	No.	Comment	Change/Possible Update	Possible Impact	Conclusion
	.../sam:sampledFeature	D.7.2 .9.3	Model area and geometry usually comes with model results.	This could be made voidable as for AQD_Model, the geometry is in the data. A code list to briefly describe the area should be created (this code list will also be useful within AQD_RepresentativeArea)	Negligible for all	No Change

AQD_Attainment (G)	Aqd:percentileExceedance	new	Currently it is not possible to declare exceedance due to 90.4%ile	Add new conditional element	Negligible for all	Agreed to add element on percentile 90.4 (Cardinality 0 to 1 like the others)				
	.../aqd:stationUsed	A.2 .5. 6	Wrong name	Should change to aqd:samplingPointInExceedance	<table border="1"> <tr> <td>EEA</td> <td>Medium</td> </tr> <tr> <td>Countries</td> <td>Medium</td> </tr> </table>	EEA	Medium	Countries	Medium	Need to keep to ensure backward compatibility – no change!
	EEA	Medium								
	Countries	Medium								
	.../aqd:modelUsed	A.2 .5. 6	Wrong name	Should change to aqd:sModelInExceedance	<table border="1"> <tr> <td>EEA</td> <td>Medium</td> </tr> <tr> <td>Countries</td> <td>Medium</td> </tr> </table>	EEA	Medium	Countries	Medium	Need to keep to ensure backward compatibility – no change!
	EEA	Medium								
Countries	Medium									
.../aqd:methodsFulfillingDQO		New element		Negligible for all	Agreed to add element (Cardinality 0 to * like the others)					
.../aqd:sensitivePopulation	A.2 .6. 3	Not in IPR	Remove	None	REMOVE					
.../aqd:infrastructureServices	A.2 .6. 4	Not in IPR	Remove	None	REMOVE					

All associations with xlinkns to featuretypes got the value 'byReference' for the tag 'inlineOrByReference' and all voidable associations/attributes got the value 'true' for the tag 'nillable'.

Elements which require xlinkns have been updated type="gml:ReferenceType" (instead of other Content)

**Reporting Header:**

aqd:content type="gml:FeaturePropertyType" -> type="gml:ReferenceType"

aqd:delete type="gml:FeaturePropertyType" -> type="gml:ReferenceType"

**Zone:**

aqd:predecessor type="aqd:AQD\_ZonePropertyType" -> type="gml:ReferenceType"

aqd:LAU type="au:AdministrativeUnitPropertyType" -> type="gml:ReferenceType"

**AssessmentRegime:**

aqd:zone

aqd:zone type="aqd:AQD\_ZonePropertyType" -> type="gml:ReferenceType"

**Samplingpoint:**

aqd:zone type="aqd:AQD\_ZonePropertyType" -> type="gml:ReferenceType"

**AssessmentMethods:**

aqd:samplingPointAssessmentMetadata type="aqd:AQD\_SamplingPointPropertyType" -> type="gml:ReferenceType"

aqd:modelAssessmentMetadata type="aqd:AQD\_ModelPropertyType" -> type="gml:ReferenceType"

**ExceedanceArea:**

stationUsed type="aqd:AQD\_SamplingPointPropertyType" modelUsed" -> type="gml:ReferenceType"

modelUsed type="aqd:AQD\_ModelPropertyType" -> type="gml:ReferenceType"

administrativeUnit type="au:AdministrativeUnitPropertyType" -> type="gml:ReferenceType"

**Attainment:**

zone type="aqd:AQD\_ZonePropertyType" -> type="gml:ReferenceType"  
assessment type="aqd:AQD\_AssessmentRegimePropertyType" -> type="gml:ReferenceType"

**Model:**

zone type="aqd:AQD\_ZonePropertyType" -> type="gml:ReferenceType"

**SamplingPointCollection:**

samplingPoint type="aqd:AQD\_SamplingPointPropertyType" -> type="gml:ReferenceType"

**Plan:**

exceedanceSituation type="aqd:AQD\_AttainmentPropertyType" -> type="gml:ReferenceType"

**Evaluation Scenario:**

usedInPlan type="aqd:AQD\_PlanPropertyType" -> type="gml:ReferenceType"  
sourceApportionment type="aqd:AQD\_SourceApportionmentPropertyType" -> type="gml:ReferenceType"

**SourceApportionment:**

parentExceedanceSituation type="aqd:AQD\_AttainmentPropertyType" -> type="gml:ReferenceType"  
usedInPlan type="aqd:AQD\_PlanPropertyType" -> type="gml:ReferenceType"

**Measures:**

exceedanceAffected type="aqd:AQD\_SourceApportionmentPropertyType" -> type="gml:ReferenceType"  
usedForScenario type="aqd:AQD\_EvaluationScenarioPropertyType" -> type="gml:ReferenceType"

**Scenario:**

measuresApplied type="aqd:AQD\_MeasuresPropertyType" -> type="gml:ReferenceType"

End