

Contents

AQD_ReportHeader..... 2

AQD_Zones..... 3

AQD_SamplingPoint 4

AQD_Sample & AQD_RepresentativeArea 5

AQD_SamplingPointProcess..... 6

AQD_Station..... 7

AQD_Network 8

AQD_Model 9

AQD_ModelProcess & AQD_ModelArea..... 10

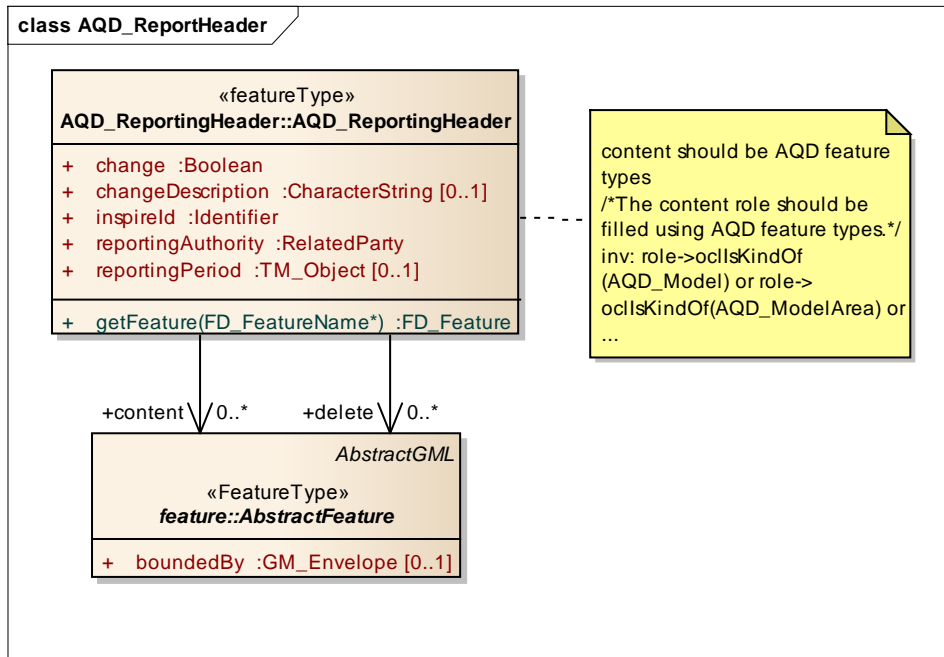
AQD_AggregationProcess 11

Codelists 12

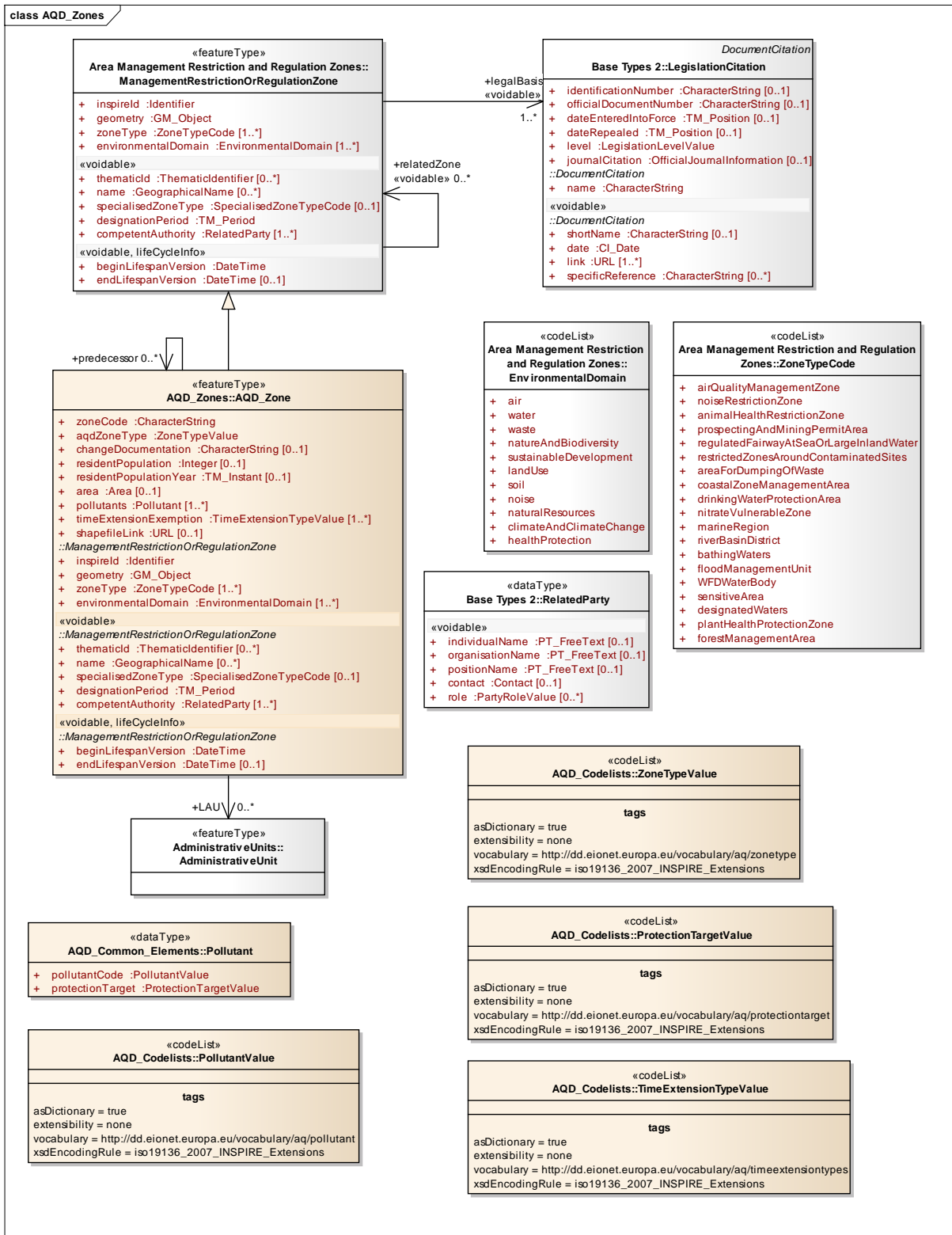
AQD_Assessment 17

AQD_Attainment 18

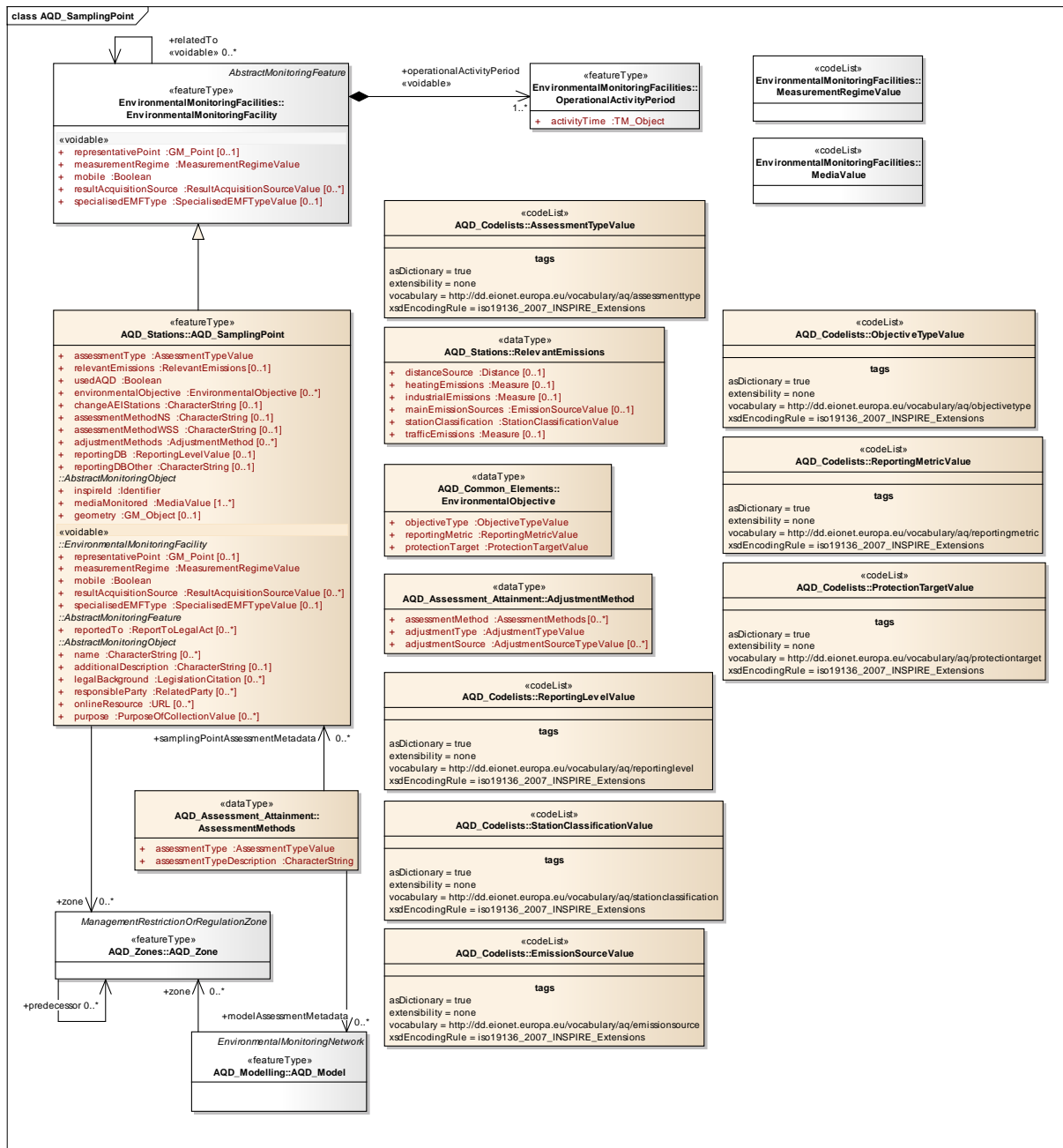
AQD_ReportHeader



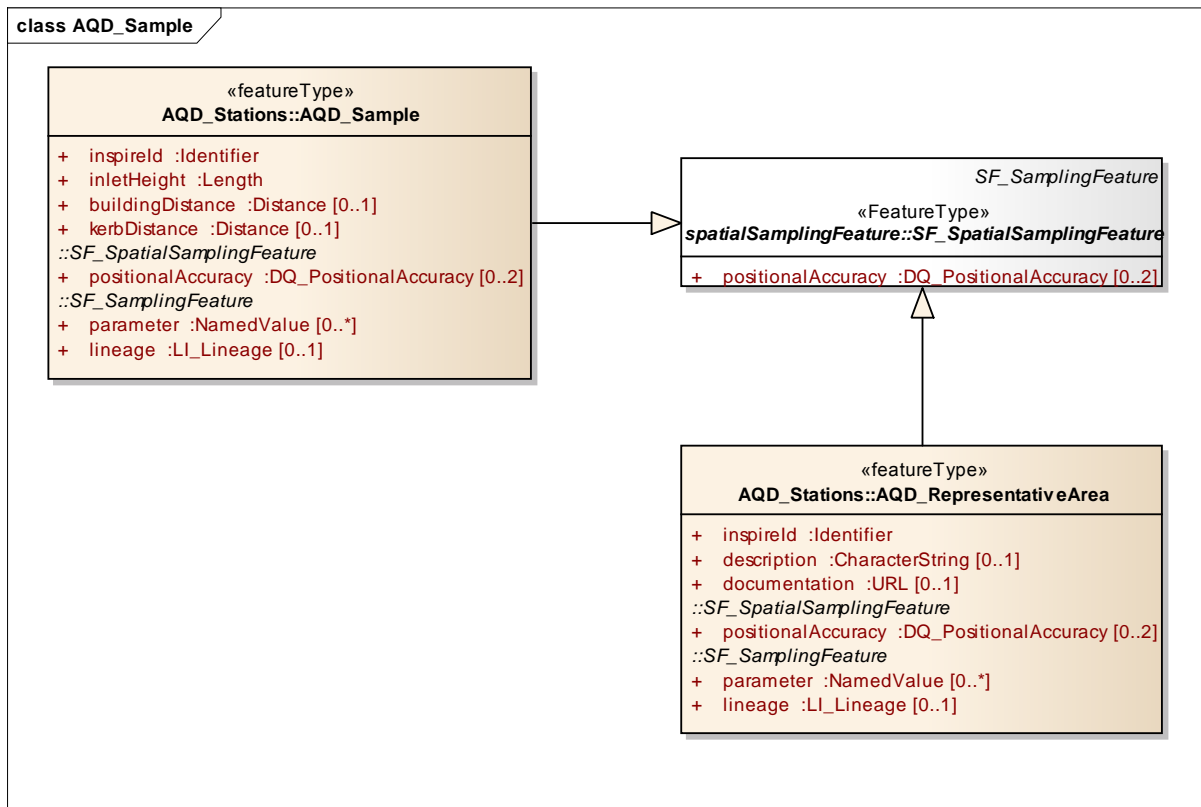
AQD_Zones



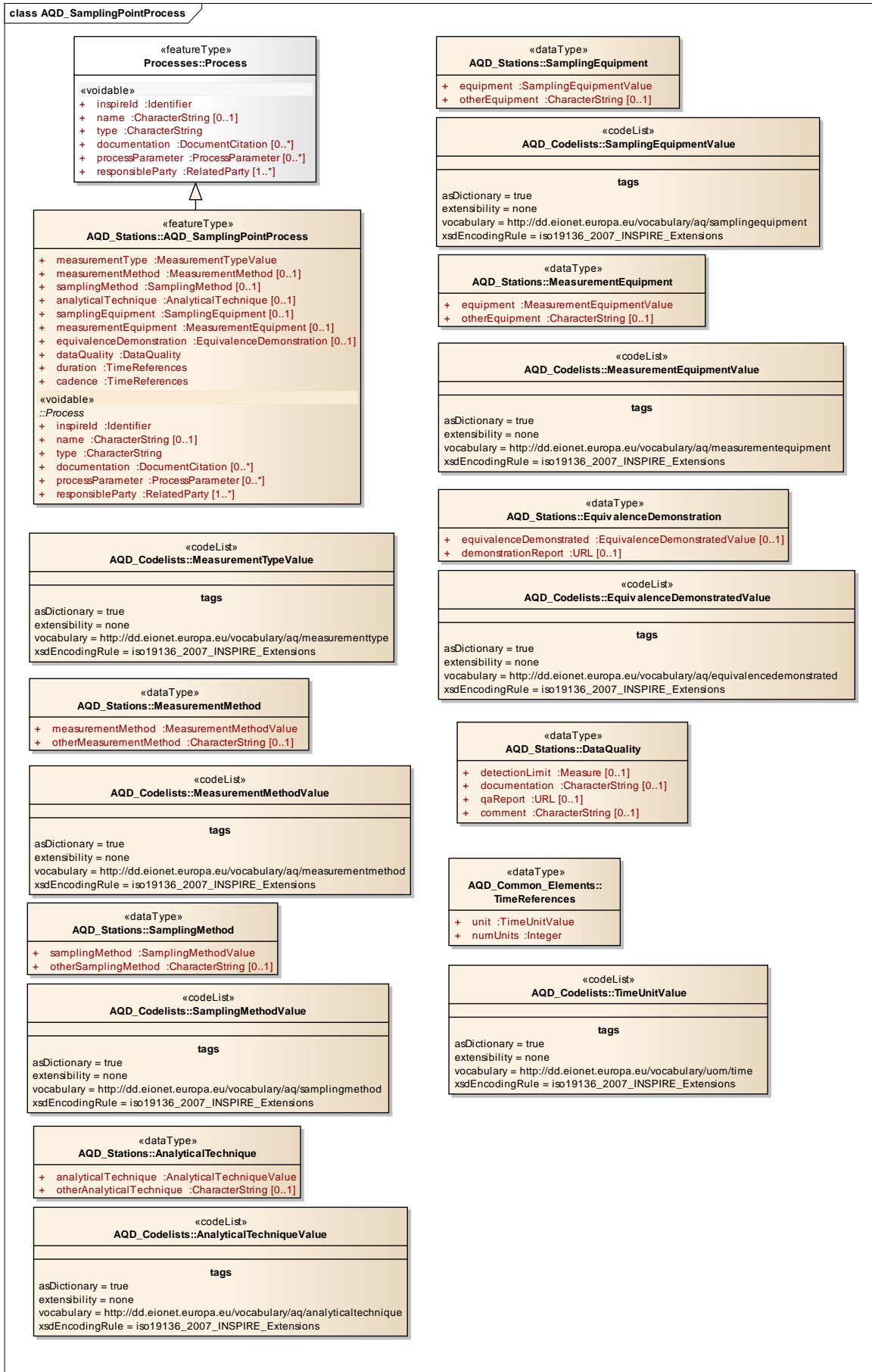
AQD_SamplingPoint



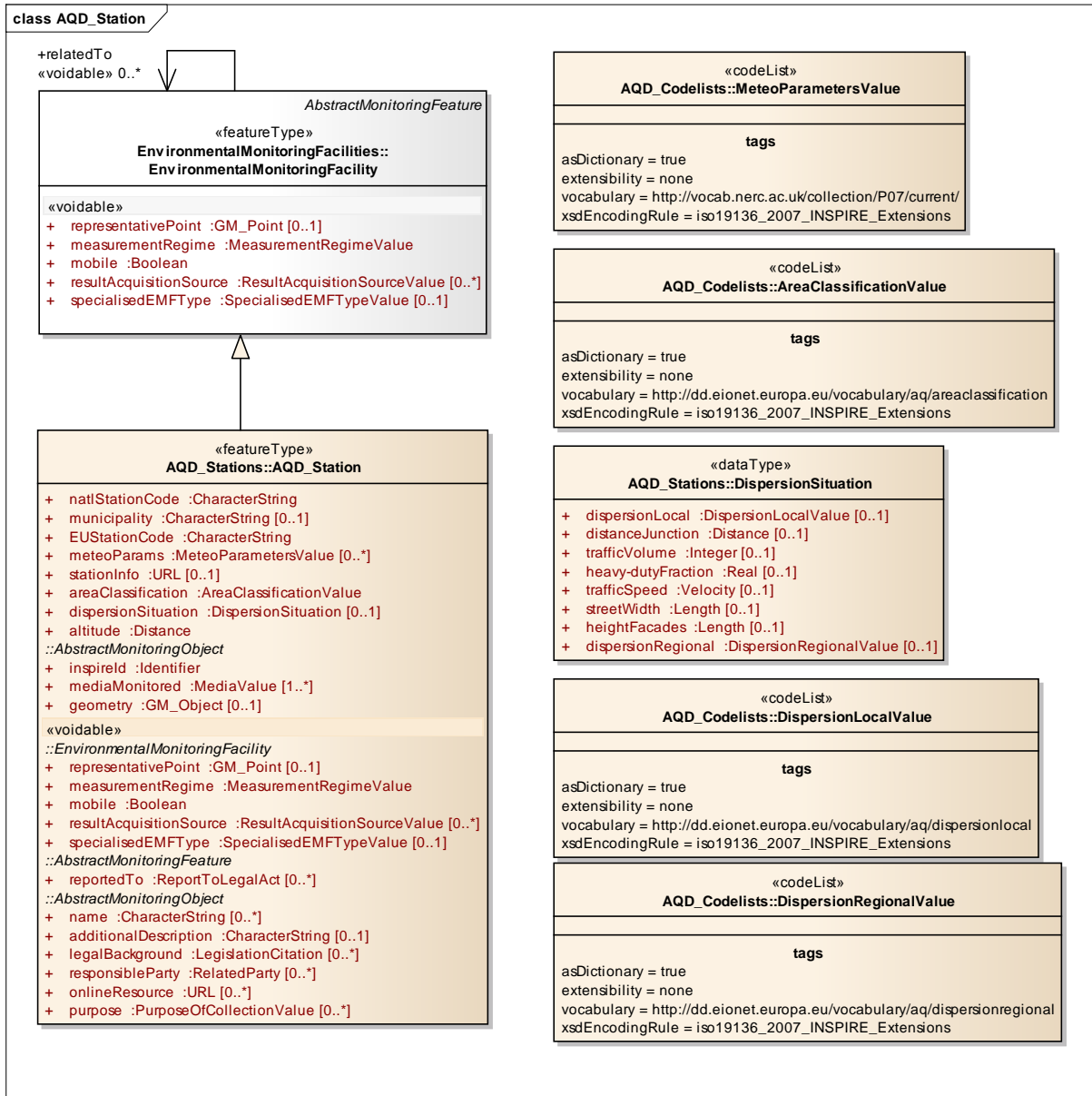
AQD_Sample & AQD_RepresentativeArea



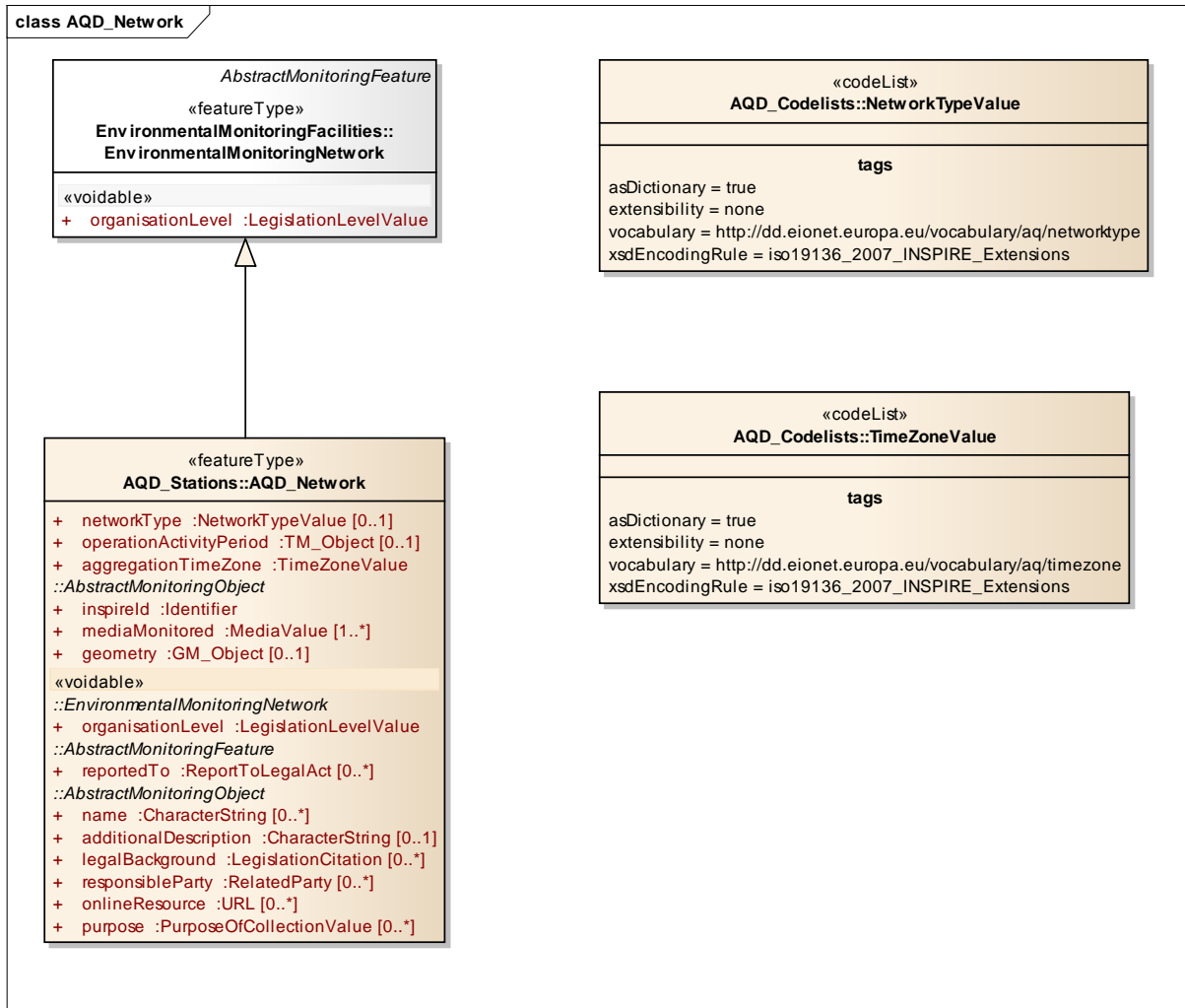
AQD_SamplingPointProcess



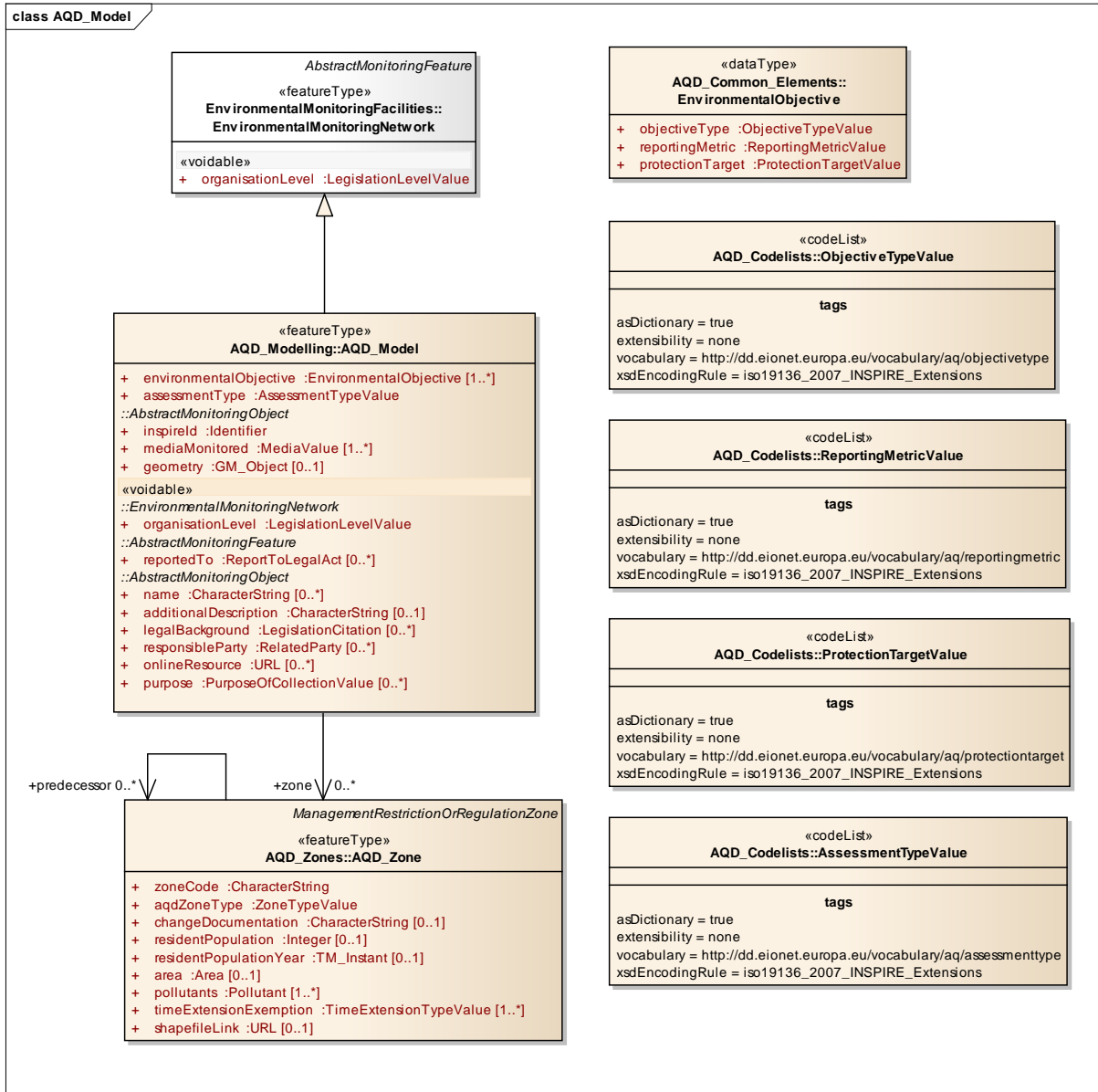
AQD_Station



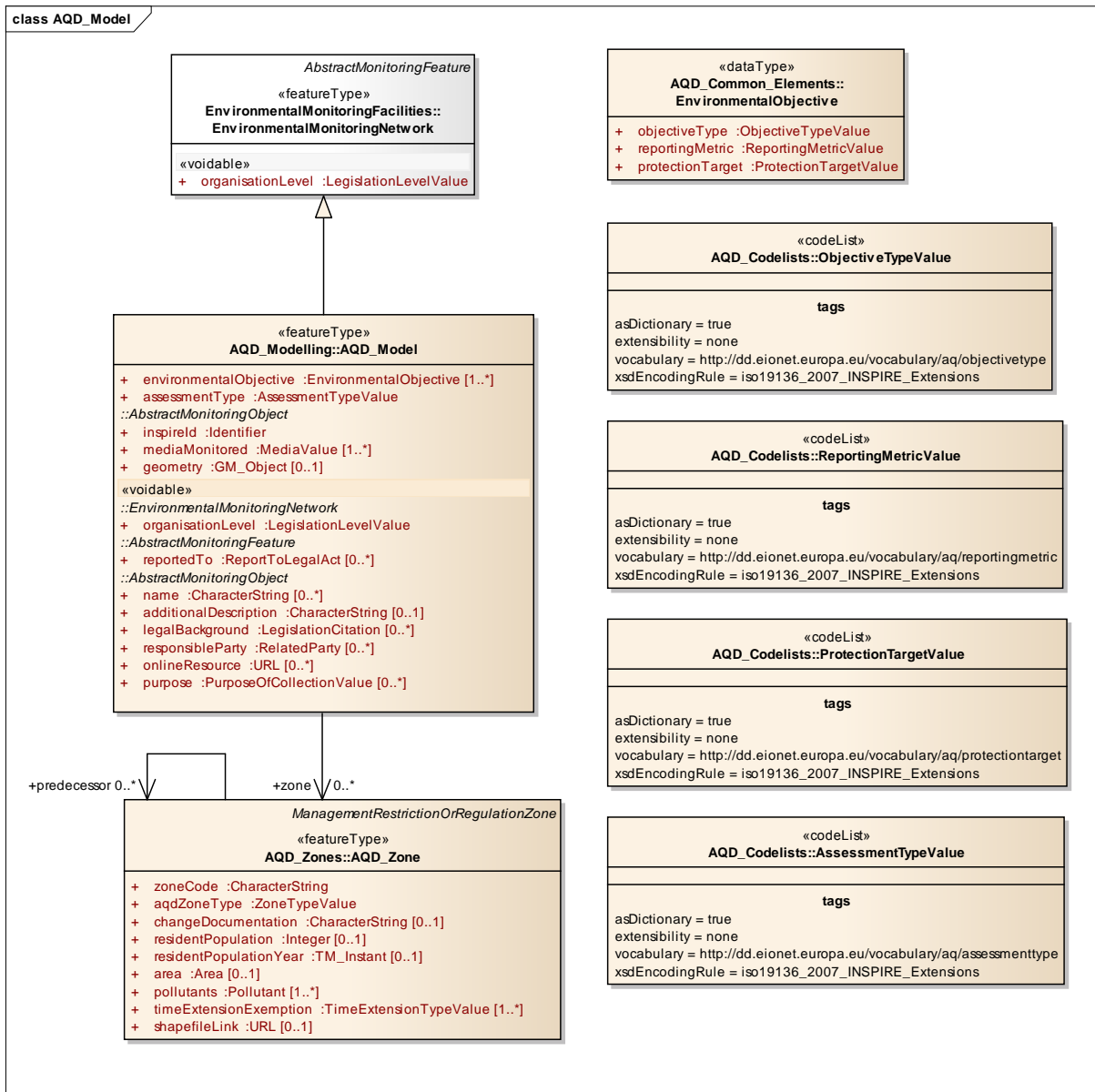
AQD_Network



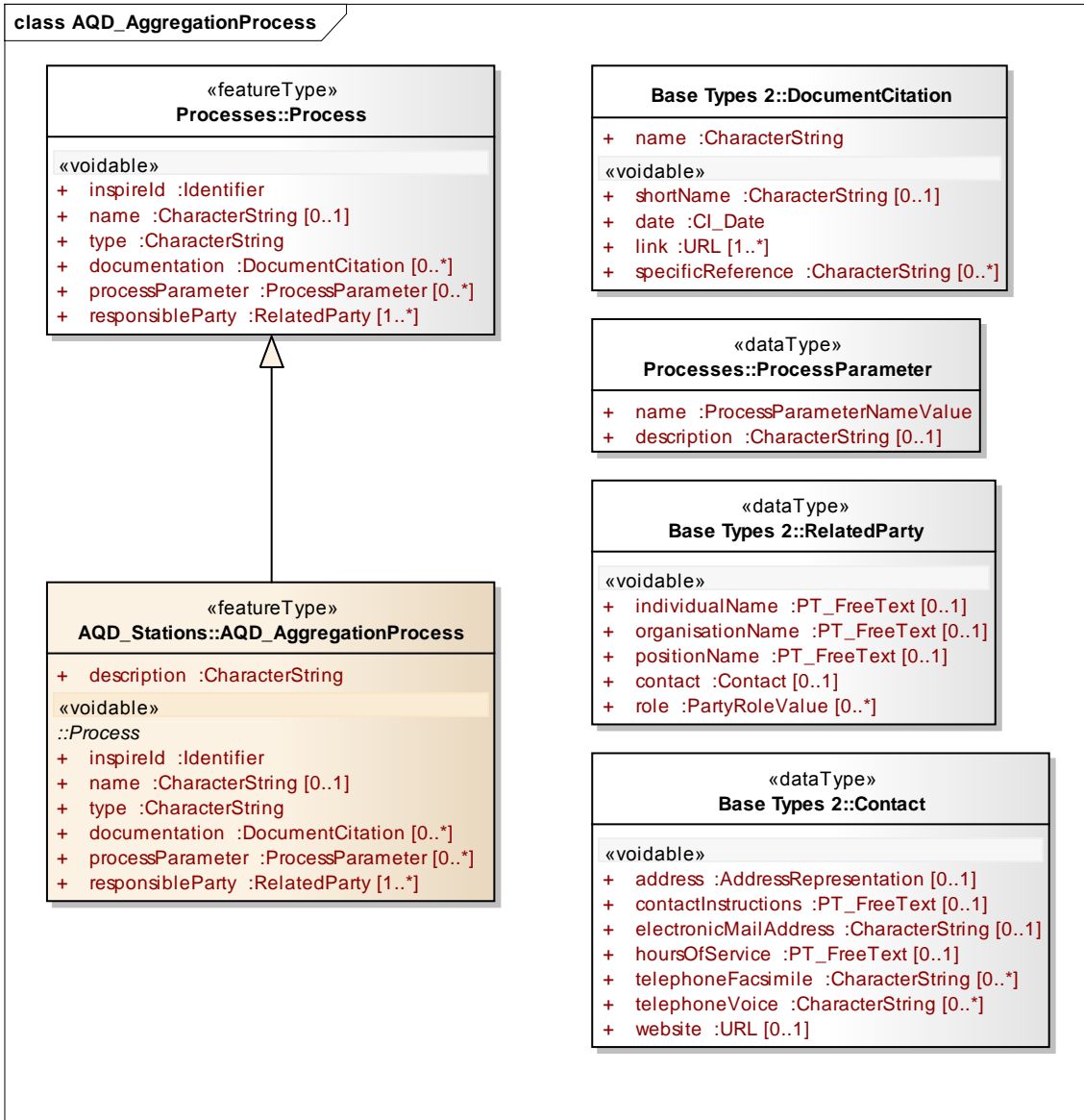
AQD_Model



AQD_ModelProcess & AQD_ModelArea



AQD_AggregationProcess



Codelists

class AQD_Codelist_1

«codeList» AQD_Codelists::AssessmentThresholdExceedanceValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/assessmentthresholdexceedance xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Administrative Level
 local
 national
 regional

«codeList» AQD_Codelists::AdministrativeLevelValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/administrativelevel xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Analytical Technique
 Graphite furnace atomic absorption spectrometry (GF-AAS) (Pb, As, Cd, Ni (Reference), (Hg))
 Cold vapour atomic absorption spectrometry (CV AAS) (Hg)
 Flame atomic absorption spectrometry (F-AAS)
 High resolution continuum source atomic absorption spectrometry (HR-CS-AAS) (Pb, As, Cd, Ni (Ref.))
 Zeeman atomic absorption spectrometry (Zeeman AAS)=Graphite furnace atomic absorption spectrometry with Zeeman Background correction (Pb, As, Cd, Ni)
 Cold vapour atomic fluorescence spectrometry (CV AFS) (Hg)
 Colorimetric with p-rosaline (SO₂)
 Gas chromatography (GC) + flame ionisation (FID) (GC/FID) (VOC)
 Gas chromatography (GC) + flame ionisation (FID) + ECD (VOC)
 [Gas chromatography + mass spectrometry (GC-MS) (VOC, PAH, B(a)P (Reference))
 Griess-Saltzman reaction (NO₂)
 Gravimetry (PM₁₀, PM_{2.5}, PM₁ (Reference))
 High performance liquid chromatography – fluorescence detection (HPLC-FLD) (PAH)
 High performance liquid chromatography – UV/vis detection
 High performance liquid chromatography – Mass spectrometry
 Hydride generation electrothermal – atomic absorption spectrometry (HG ET AAS =FIAS-Furnace coupling technique (FI-FU)
 Inductive coupled plasma atomic emission spectrometry (ICP-AES=ICP-OES) (As, Ni)
 Inductive coupled plasma mass spectrometry (ICP-MS) (Pb, As, Cd, Ni)
 (Inductive coupled plasma optical emission spectrometry (ICP-OES) =ICP-AES)
 Potentiometry
 Reflectometry
 Spectrophotometry
 Thermal-optical carbon analysis
 Titration
 Volumetry
 X-ray fluorescence spectrometry (XRF) (As, Cd, Pb, Ni)
 Other, please specify

«codeList» AQD_Codelists::AnalyticalTechniqueValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/analyticaltechnique xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Area Classification
 Urban
 Suburban
 Rural – not specified
 Rural - Near city
 Rural - Regional
 Rural - Remote

«codeList» AQD_Codelists::AreaClassificationValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/areaclassification xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Assessment Threshold Exceedance
 Below lower assessment threshold (= <LAT)
 Between lower and upper assessment threshold (>LAT=<UAT)
 Above upper assessment threshold (> UAT)
 Not applicable

«codeList» AQD_Codelists::AssessmentTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/assessmenttype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Assessment Type
 Fixed measurement
 Indicative measurement
 Modelling
 Objective estimation

«codeList» AQD_Codelists::DispersionLocalValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/dispersionlocal xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Dispersion Local
 Detached buildings or one-sided compact buildings
 Elevated terrain, nearby buildings or trees
 Elevated terrain, no nearby buildings or trees
 Flat terrain, nearby buildings or trees
 Flat terrain, no nearby buildings or trees
 Street canyon

class AQD_Codelist_2

«codeList»
AQD_Codelists::DispersionRegionalValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/dispersionregional
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Dispersion Regional
 Plane terrain
 Hilly terrain
 Mountainous terrain – slope
 Mountainous terrain – ridge, pass or summit
 High alpine terrain
 Valley in hilly terrain
 Valley in mountainous terrain
 Basin in hilly terrain
 Basin in mountainous terrain
 Basin partly surrounded by mountains
 Coast with plane terrain in interior
 Coast with mountainous terrain in interior

«codeList»
AQD_Codelists::EquivalenceDemonstratedValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/equivalencedemonstrated
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Equivalence Demonstrated
 Equivalence demonstrated
 Equivalence not demonstrated
 Demonstration not necessary, reference method used
 Demonstration not possible, no reference method defined by Directive

«codeList»
AQD_Codelists::AdjustmentTypeValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/adjustmenttype
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Exceedance Adjustment
 MoT
 WSS
 NS
 None

«codeList»
AQD_Codelists::LAUCodeValue

tags

asDictionary = true
 extensibility = none
 vocabulary = TBD
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Main emission sources (aligned to CRF Categories)
 Agriculture (4)
 Domestic (1.A.4, 1.A.5)
 Energy (1.A.1)
 Fugitive emissions (1.B)
 Industry (1.A.2, 2)
 Long-range transport
 Secondary aerosols
 Solvents (3)
 Transport (1.A.3)
 Waste (6)
 Other

«codeList»
AQD_Codelists::EmissionSourceValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/emissionsource
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Measure Classification
 Emission control equipment for small and medium sized stationary combustion sources / replacement of combustion sources
 Retrofitting emission control equipment to vehicles
 Low emission fuels for small, medium and large scale stationary sources and in mobile sources
 – Regulations for fuel quality
 – Shift to installations using low emission fuels
 – Other
 Measures to reduce pollution through permit systems and economic instruments
 – LCP permits and national plans going beyond BAT
 – IPPC permits beyond BAT
 – Introduction/increase of environment taxes
 – Introduction/increase of environment charges
 – Tradable permit system
 – Introduction/increase of environmental funding
 – Other
 Public information/Education
 – Internet
 – Radio
 – Television
 – Leaflets
 – Other
 Public procurement
 – New vehicles, including low emission vehicles
 – Cleaner vehicle transport services
 – Low emission stationary combustion sources
 – Low emission fuels for stationary and mobile sources
 – Other
 Traffic planning and management
 – Low emission zones
 – Congestion pricing zones
 – Differentiation of parking fees
 – Management of parking places
 – Effective reduction of speed limits and control
 – Slow modes (e.g. expansion of bicycle and pedestrian infrastructure)
 – Freight transport
 – Effective improvement of public transport
 – Land use planning to ensure sustainable transport facilities
 – Encouragement of shift of transport modes
 – Other
 Other, please specify

«codeList»
AQD_Codelists::MeasureClassificationValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/measureclassification
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList»
AQD_Codelists::MeasureImplementationStatusValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/measureimplementationstatus
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Measure Implementation Status
 Planning
 Preparation
 Implementation
 Evaluation
 Annulation
 Other

«codeList»
AQD_Codelists::MeasureTypeValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/measuretype
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Measure Type
 Measure integrated in Air Quality Plan
 Short term measure
 Measure geared at the protection of sensitive groups
 Measure outside of Air quality or Short term Action Plan
 Coordinated measure with other MS
 Other, please specify

«codeList»
AQD_Codelists::MeasurementEquipmentValue

tags

asDictionary = true
 extensibility = none
 vocabulary = http://dd.eionet.europa.eu/vocabulary/aaq/measurementequipment
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList»
AQD_Codelists::CurrenciesValue

tags

asDictionary = true
 extensibility = any
 vocabulary = http://dd.eionet.europa.eu/vocabulary/common/currencies/
 xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::MeasurementMethodValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/measurementmethod xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::MeasurementTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/measurementtype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::MeteoParametersValue
tags
asDictionary = true extensibility = none vocabulary = http://vocab.nerc.ac.uk/collection/P07/current/ xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::AdjustmentSourceTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/adjustmentsourcetype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::NetworkTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/networktype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::ObjectiveTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/objectivetype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::PollutantValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/pollutant xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Measurement Method
 UV fluorescence (SO₂ (Reference))
 Chemiluminescence (NO_x (Reference))
 Beta ray attenuation (PM₁₀, PM_{2.5})
 Tapered Element Oscillating Microbalance (TEOM) (PM₁₀, PM_{2.5})
 Tapered Element Oscillating Microbalance (TEOM) with Filter Dynamics Measurement System (FDMS) (PM₁₀, PM_{2.5})
 UV absorption (O₃ (Reference))
 Non-dispersive infrared /spectroscopy (NDIR) (CO (Reference))
 Infrared gas filter correlation (CO)
 Sampling, reflectrometry
 Absorption, membrane separation, conductance detection
 Differential Optical Absorption Spectroscopy (DOAS) (SO₂, NO₂)
 Other, please specify
 Gas chromatography followed by flame ionization detection (VOC's)
 Gas chromatography followed by mass spectrometry (GC-MS) (VOC's)
 Reflectrometry (Black Smoke)

Measurement Type
 Active or passive sampling
 Automatic analyzer
 Remote sensor

Meteo Parameters
 Wind velocity
 Wind direction
 Pressure
 Temperature
 Absolute humidity
 Mixing height
 Relative humidity
 Duration of sunlight
 Precipitation
 Wind component south-north
 Wind component west-east
 Wind component vertical
 Volume of air
 Direct solar UV radiation
 Direct solar radiation
 Global radiation
 Diffused radiation
 Reflected radiation
 Direct solar visible radiation
 Direct solar IR radiation
 No meteo measured

Network Type
 Local
 Urban
 Regional
 Entire country
 Other

Environmental Objective Type
 Alert threshold (ALT)
 Critical level (CL)
 Exposure concentration obligation (ECO)
 Exposure reduction target (ERT)
 Information Threshold (INT)
 Long term objective (LTO)
 Limit Value (LV)
 Monitoring objective (MO)
 Target Value (TV)

Pollutants
 SO₂
 NO₂
 NO_x1
 O₃
 CO
 PM₁₀
 PM_{2.5}
 ...

«codeList» AQD_Codelists::ExceedanceReasonValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/exceedancereason xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Protection Target
 Health
 Vegetation/ecosystem
 Health and vegetation/ecosystem
 not specified

«codeList» AQD_Codelists::ReportingLevelValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/reportinglevel xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Reporting metric
 Number of hours in exceedance in a calendar year
 Days when maximum daily 8-hour mean exceeded the target value averaged over three years
 Days when maximum daily 8-hour mean exceeded the long term objective in one calendar year
 Number of days in exceedance in a calendar year
 Average over the Wintermonths (1st October of year x-1 to 31st March of year x)
 Days when maximum daily 8-hour mean exceeded the limit value AOT40 (May-July)
 Annual average
 Average Exposure Indicator
 Deducted hours in exceedance in a calendar year
 Deducted days in exceedance in a calendar year
 Deduction of annual average

«codeList» AQD_Codelists::ReportingMetricValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/reportingmetric xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::SamplingEquipmentValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/samplingequipment xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Sampling method
 Whole air canister sampling
 Active solid adsorbent sampling
 Diffusive solid adsorbent sampling
 Sampling with DNPH;
 Sampling with HMP;
 Sampling with bisulfite and chromotropic acid;
 HVS - manual filter change 30 m³/h
 HVS -automatic filter change 30 m³/h
 MVS - manual filter change 15 m³/h
 LVS- manual filter change 2,3 m³/h
 LVS - automatic filter change 2,3 m³/h
 LVS automatic filter change 1 m³/h
 deposition: cylindrical deposition gauge
 deposition: wet-only
 deposition: wet and dry
 Deposition: Bulk
 Other, please specify

«codeList» AQD_Codelists::SamplingMethodValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/samplingmethod xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::SpatialScaleValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/spatialscale xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Spatial Scale
 Local
 Town as part of zone
 Zone/Agglomeration
 National

«codeList» AQD_Codelists::StationClassificationValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/stationclassification xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Station Classification
 Traffic
 Industrial
 Background

class AQD_Codelist_5

«codeList» AQD_Codelists::StatusAQPlanValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/statusaqplan xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Status AQPlan In preparation In formal adoption process First year of implementation, adopted during reporting year Implementation Under revision Ended, no revision foreseen
--

«codeList» AQD_Codelists::TimeExtensionTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/timeextensiontypes xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Time Extension Exemption PM10-24hr PM10-annual NO2-1hr NO2-annual Bz-annual None

«codeList» AQD_Codelists::TimeScaleValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/timescale xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Time Scale Short term (less than 1 year) Medium term (one year) Long term (more than 1 year)
--

«codeList» AQD_Codelists::TimeUnitValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/uom/time xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

Time Unit Hour Day Week Month Year Other, please specify

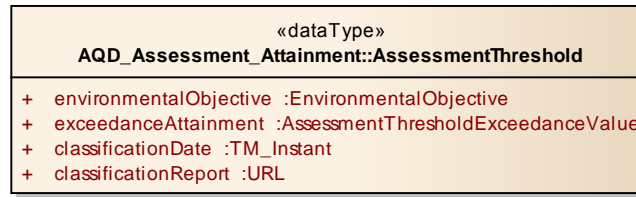
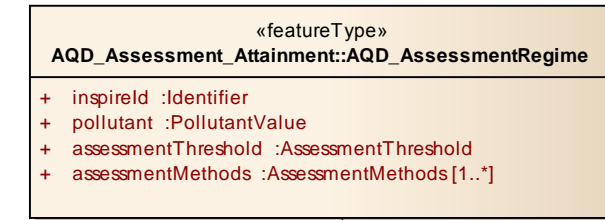
«codeList» AQD_Codelists::TimeZoneValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/timezone xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

«codeList» AQD_Codelists::ZoneTypeValue
tags
asDictionary = true extensibility = none vocabulary = http://dd.eionet.europa.eu/vocabulary/aq/zonetype xsdEncodingRule = iso19136_2007_INSPIRE_Extensions

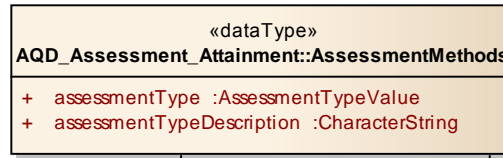
Zone Type Agglomeration Non-agglomeration
--

AQD Assessment

class AQD_Assessment



if assessmentType is Fixed measurement or Indicative measurement, samplingPointAssessmentMetadata shall be given
 /*if assessmentType is Fixed measurement or Indicative measurement, samplingPointAssessmentMetadata shall be given.*/
 inv: implies(assessmentType = AssessmentTypeValue::'Fixed measurement' or assessmentType = AssessmentTypeValue::'Indicative measurement', samplingPointAssessmentMetadata->notEmpty() and modelAssessmentMetadata->empty())



if assessmentType is modelling or objective estimation, modelAssessmentMetadata shall be given
 /*if assessmentType is modelling or objective estimation, modelAssessmentMetadata shall be given.*/
 inv: implies(assessmentType = AssessmentTypeValue::'Modelling' or assessmentType = AssessmentTypeValue::'Objective estimation', samplingPointAssessmentMetadata->notEmpty() and modelAssessmentMetadata->notEmpty())

