

Commission Regulation (EU) No 1089/2010 of 23 November 2010
implementing Directive 2007/2/EC of the European Parliament and of
the Council as regards interoperability of spatial data sets and services

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ANNEX I

COMMON TYPES, DEFINITIONS AND REQUIREMENTS

1. TYPES DEFINED IN EUROPEAN AND INTERNATIONAL STANDARDS
2. COMMON DATA TYPES
 - 2.1. Identifier (Identifier)
 - Attributes of the data type Identifier
 - Constraints of the data type Identifier
 - 2.2. Related Party (RelatedParty)
 - Attributes of the data type RelatedParty
 - Constraints of the data type RelatedParty
 - 2.3. Contact (Contact)
 - Attributes of the data type Contact
 - 2.4. Document Citation (DocumentCitation)
 - Attributes of the data type DocumentCitation
 - 2.5. Legislation Citation (LegislationCitation)
 - Attributes of the data type LegislationCitation
 - Constraints of the data type LegislationCitation
 - 2.6. Official Journal Information (OfficialJournalInformation)
 - Attributes of the data type OfficialJournalInformation
 - 2.7. Thematic Identifier (ThematicIdentifier)

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Attributes of the data type ThematicIdentifier

3. COMMON ENUMERATIONS
 - 3.1. Vertical Position (VerticalPositionValue)
4. COMMON CODE LISTS
 - 4.1. Condition of Facility (ConditionOfFacilityValue)
 - Values for the code list ConditionOfFacilityValue
 - 4.2. Country Code (CountryCode)
 - 4.3. Legislation Level (LegislationLevelValue)
 - 4.4. Party Role (PartyRoleValue)
 - Values for the code list RelatedPartyRoleValue
 - 4.5. Climate and Forecast Standard Names (CFStandardNamesValue)
 - 4.6. Gender (GenderValue)
 - Values for the code list GenderValue
5. GENERIC NETWORK MODEL
 - 5.1. Spatial Object Types
 - 5.1.1. Cross Reference (CrossReference)
 - 5.1.2. Generalised Link (GeneralisedLink)
 - 5.1.3. Grade Separated Crossing (GradeSeparatedCrossing)
 - 5.1.4. Link (Link)
 - 5.1.5. Link Sequence (LinkSequence)
 - 5.1.6. Link Set (LinkSet)
 - 5.1.7. Network (Network)
 - 5.1.8. Network Area (NetworkArea)
 - 5.1.9. Network Connection (NetworkConnection)
 - Attributes of the spatial object type NetworkConnection
 - Association roles of the spatial object type NetworkConnection
 - Constraints of the spatial object type NetworkConnection
 - 5.1.10. Network Element (NetworkElement)
 - 5.1.11. Network Property (NetworkProperty)
 - 5.1.12. Node (Node)
 - 5.2. Data Types
 - 5.2.1. Directed Link (DirectedLink)
 - 5.2.2. Link Reference (LinkReference)
 - Attributes of the data type LinkReference
 - Constraints of the data type LinkReference
 - 5.2.3. Network Reference (NetworkReference)
 - 5.2.4. Simple Linear Reference (SimpleLinearReference)
 - 5.2.5. Simple Point Reference (SimplePointReference)
 - 5.3. Code Lists
 - 5.3.1. Connection Type (ConnectionTypeValue)
 - 5.3.2. Link Direction (LinkDirectionValue)
6. COVERAGE MODEL
 - 6.1. Coverages (Base)
 - 6.1.1. Spatial object types
 - 6.1.1.1. Coverage (Coverage)
 - Attributes of the spatial object type Coverage
 - 6.2. Coverages (Domain And Range)
 - 6.2.1. Spatial object types

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- 6.2.1.1. Coverage (Domain And Range Representation) (CoverageByDomainAndRange)
 - Attributes of the spatial object type CoverageByDomainAndRange
 - Constraints of the spatial object type CoverageByDomainAndRange
- 6.2.1.2. Rectified Grid Coverage (RectifiedGridCoverage)
 - Constraints of the spatial object type RectifiedGridCoverage
- 6.2.1.3. Referenceable Grid Coverage (ReferenceableGridCoverage)
 - Constraints of the spatial object type ReferenceableGridCoverage
- 6.2.2. Data types
 - 6.2.2.1. Coverage Function (CoverageFunction)
 - Attributes of the union type CoverageFunction
 - 6.2.2.2. Grid Function (GridFunction)
 - Attributes of the data type GridFunction
- 7. OBSERVATIONS MODEL
 - 7.1. Observation References
 - 7.1.1. Spatial object types
 - 7.1.1.1. Observation Set (ObservationSet)
 - Attributes of the spatial object type ObservationSet
 - Association roles of the spatial object type ObservationSet
 - 7.2. Processes
 - 7.2.1. Spatial object types
 - 7.2.1.1. Process (Process)
 - Attributes of the spatial object type Process
 - 7.2.2. Data types
 - 7.2.2.1. Process Parameter (ProcessParameter)
 - Attributes of the data type ProcessParameter
 - 7.2.3. Code lists
 - 7.2.3.1. Process Parameter Name (ProcessParameterNameValue)
 - 7.3. Observable Properties
 - 7.3.1. Data types
 - 7.3.1.1. Constraint (Constraint)
 - Attributes of the data type Constraint
 - 7.3.1.2. Category Constraint (CategoryConstraint)
 - Attributes of the data type CategoryConstraint
 - 7.3.1.3. Range Constraint (RangeConstraint)
 - Attributes of the data type RangeConstraint
 - 7.3.1.4. Range Bounds (RangeBounds)
 - Attributes of the data type RangeBounds
 - 7.3.1.5. Scalar Constraint (ScalarConstraint)
 - Attributes of the data type ScalarConstraint
 - 7.3.1.6. Other Constraint (OtherConstraint)
 - Attributes of the data type OtherConstraint
 - 7.3.1.7. Statistical Measure (StatisticalMeasure)
 - Attributes of the data type StatisticalMeasure
 - Association roles of the data type StatisticalMeasure
 - 7.3.2. Enumerations
 - 7.3.2.1. Comparison Operator (ComparisonOperatorValue)

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- 8.1.3.2. Input Or Output (InputOutputValue)
- 8.2. Requirements for Activity Complexes

ANNEX II

REQUIREMENTS FOR SPATIAL DATA THEMES LISTED IN ANNEX I TO DIRECTIVE 2007/2/EC

1. COORDINATE REFERENCE SYSTEMS
 - 1.1. Definitions
 - 1.2. Datum for three-dimensional and two-dimensional coordinate reference systems
 - 1.3. Coordinate Reference Systems
 - 1.3.1. Three-dimensional Coordinate Reference Systems
 - 1.3.2. Two-dimensional Coordinate Reference Systems
 - 1.3.3. Compound Coordinate Reference Systems
 1. For the horizontal component of the compound coordinate reference system,...
 2. For the vertical component, one of the following coordinate reference...
 - 1.3.4. Other Coordinate Reference Systems
 - 1.4. Coordinate Reference Systems used in the View Network Service
 - 1.5. Coordinate Reference System Identifiers
 1. Coordinate reference system parameters and identifiers shall be managed in...
 2. Only identifiers contained in a common register shall be used...
2. GEOGRAPHICAL GRID SYSTEMS
 - 2.1. Definitions
 - 2.2. Grids
 - 2.2.1. Equal Area Grid
 - 2.2.2. Zoned Geographic Grid
 1. When gridded data is delivered using geodetic coordinates as specified...
 2. The resolution levels are defined in Table 1.
 3. The grid shall be based on the ETRS89-GRS80 geodetic coordinate...
 4. The origin of the grid shall coincide with the intersection...
 5. The grid orientation shall be south-north and west-east according to...
 6. For grid referencing in regions outside of continental Europe data...
 7. This grid shall be subdivided in zones. The south-north resolution...
 8. The grid shall be designated Grid_ETRS89-GRS80z n_res , where n...
3. GEOGRAPHICAL NAMES
 - 3.1. Spatial Object Types
 - 3.1.1. Named Place (NamedPlace)
 - 3.2. Data Types
 - 3.2.1. Geographical Name (GeographicalName)

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- 3.2.2. Pronunciation Of Name (PronunciationOfName)
 - Attributes of the data type PronunciationOfName
 - Constraints of the data type PronunciationOfName
- 3.2.3. Spelling Of Name (SpellingOfName)
- 3.3. Code Lists
 - 3.3.1. Grammatical Gender (GrammaticalGenderValue)
 - 3.3.2. Grammatical Number (GrammaticalNumberValue)
 - 3.3.3. Name Status (NameStatusValue)
 - 3.3.4. Named Place Type (NamedPlaceTypeValue)
 - 3.3.5. Nativeness (NativenessValue)
- 3.4. Layers
- 4. ADMINISTRATIVE UNITS
 - 4.1. Structure of the Spatial Data Theme Administrative Units
 - 4.2. Administrative Units
 - 4.2.1. Spatial object types
 - 4.2.1.1. Administrative Boundary (AdministrativeBoundary)
 - Attributes of the spatial object type AdministrativeBoundary
 - Association roles of the spatial object type AdministrativeBoundary
 - 4.2.1.2. Administrative Unit (AdministrativeUnit)
 - Attributes of the spatial object type AdministrativeUnit
 - Association roles of the spatial object type AdministrativeUnit
 - Constraints of the spatial object type AdministrativeUnit
 - 4.2.1.3. Condominium (Condominium)
 - Attributes of the spatial object type Condominium
 - Association roles of the spatial object type Condominium
 - 4.2.2. Data Types
 - 4.2.2.1. Residence Of Authority (ResidenceOfAuthority)
 - Attributes of the data type ResidenceOfAuthority
 - 4.2.3. Enumerations
 - 4.2.3.1. Legal Status (LegalStatusValue)
 - Allowed values for the enumeration LegalStatusValue
 - 4.2.3.2. Technical Status (TechnicalStatusValue)
 - Allowed values for the enumeration TechnicalStatusValue
 - 4.2.4. Code Lists
 - 4.2.4.1. Administrative Hierarchy Level (AdministrativeHierarchyLevel)
 - 4.3. Maritime Units
 - 4.3.1. Spatial object types
 - 4.3.1.1. Baseline (Baseline)
 - Attributes of the spatial object type Baseline
 - Association roles of the spatial object type Baseline
 - 4.3.1.2. Maritime Boundary (MaritimeBoundary)
 - Attributes of the spatial object type MaritimeBoundary
 - 4.3.1.3. Maritime Zone (MaritimeZone)

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- Attributes of the spatial object type MaritimeZone
- Association roles of the spatial object type MaritimeZone
- 4.3.2. Data types
 - 4.3.2.1. Baseline Segment (BaselineSegment)
 - Attributes of the data type BaselineSegment
 - 4.3.3. Code lists
 - 4.3.3.1. Baseline Segment Type (BaselineSegmentTypeValue)
 - Values for the code list BaselineSegmentTypeValue
 - 4.3.3.2. Maritime Zone Type (MaritimeZoneTypeValue)
 - Values for the code list MaritimeZoneTypeValue
- 4.4. Theme-specific Requirements
 - 1. Each instance of spatial object type AdministrativeUnit, except for the...
 - 2. Each instance of spatial object type AdministrativeUnit, except for those...
 - 3. If an administrative unit is co-administered by two or more...
 - 4. Administrative units at the same level of administrative hierarchy shall...
 - 5. Instances of the spatial object type AdministrativeBoundary shall correspond to...
 - 6. The spatial extent of a condominium may not be part...
 - 7. Condominiums can only be administered by administrative units at country...
- 4.5. Layers
 - Layers for the spatial data theme Administrative Units
- 5. ADDRESSES
 - 5.1. Definitions
 - 5.2. Spatial Object Types
 - 5.2.1. Address (Address)
 - Attributes of the spatial object type Address
 - Association roles of the spatial object type Address
 - Constraints of the spatial object type Address
 - 5.2.2. Address Area Name (AddressAreaName)
 - 5.2.3. Address Component (AddressComponent)
 - 5.2.4. Administrative Unit Name (AdminUnitName)
 - 5.2.5. Postal Descriptor (PostalDescriptor)
 - Attributes of the spatial object type PostalDescriptor
 - Constraints of the spatial object type PostalDescriptor
 - 5.2.6. Thoroughfare Name (ThoroughfareName)
 - 5.3. Data Types
 - 5.3.1. Address Locator (AddressLocator)
 - Attributes of the data type AddressLocator
 - Association roles of the data type AddressLocator
 - Constraints of the data type AddressLocator
 - 5.3.2. Address Representation (AddressRepresentation)
 - 5.3.3. Geographic Position (GeographicPosition)
 - 5.3.4. Locator Designator (LocatorDesignator)
 - 5.3.5. Locator Name (LocatorName)
 - 5.3.6. Part Of Name (PartOfName)
 - 5.3.7. Thoroughfare Name Value (ThoroughfareNameValue)
 - 5.4. Code Lists

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- 5.4.1. Geometry Method (GeometryMethodValue)
- 5.4.2. Geometry Specification (GeometrySpecificationValue)
- 5.4.3. Locator Designator Type (LocatorDesignatorTypeValue)
- 5.4.4. Locator Level (LocatorLevelValue)
- 5.4.5. Locator Name Type (LocatorNameTypeValue)
- 5.4.6. Part Type (PartTypeValue)
- 5.4.7. Status (StatusValue)
- 5.5. Theme-specific Requirements
 - 5.5.1. The Address Position
 1. In the data set, the position of the address shall...
 2. If an address has more than one position, the specification...
 - 5.5.2. Association roles
 1. The withinScopeOf association role shall be populated for all locators...
 2. The association role parentAddress shall be populated for all addresses...
 3. An address shall have an association to the name of...
- 5.6. Layers
- 6. CADASTRAL PARCELS
 - 6.1. Spatial Object Types
 - 6.1.1. Basic Property Unit (BasicPropertyUnit)
 - Attributes of the spatial object type BasicPropertyUnit
 - Association roles of the spatial object type BasicPropertyUnit
 - Constraints of the spatial object type BasicPropertyUnit
 - 6.1.2. Cadastral Boundary (CadastralBoundary)
 - Attributes of the spatial object type CadastralBoundary
 - Association roles of the spatial object type CadastralBoundary
 - Constraints of the spatial object type CadastralBoundary
 - 6.1.3. Cadastral Parcel (CadastralParcel)
 - Attributes of the spatial object type CadastralParcel
 - Association roles of the spatial object type CadastralParcel
 - Constraints of the spatial object type CadastralParcel
 - 6.1.4. Cadastral Zoning (CadastralZoning)
 - Attributes of the spatial object type CadastralZoning
 - Association roles of the spatial object type CadastralZoning
 - Constraints of the spatial object type CadastralZoning
 - 6.2. Code Lists
 - 6.2.1. Cadastral Zoning Level (CadastralZoningLevelValue)
 - 6.3. Theme-specific Requirements
 - 6.3.1. Geometry Representation
 1. The value domain of spatial properties defined in this Section...
 2. If cadastral boundaries are provided, the cadastral boundaries corresponding to...
 - 6.3.2. Modelling of object references
 - 6.3.3. Coordinate Reference Systems
 - 6.4. Portrayal Rules
 - 6.4.1. Layers
- 7. TRANSPORT NETWORKS
 - 7.1. Definitions
 - 7.2. Structure of the Spatial Data Theme Transport Networks
 - 7.3. Common Transport Elements

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- 7.3.1. Spatial Object Types
 - 7.3.1.1. Access Restriction (AccessRestriction)
 - 7.3.1.2. Condition Of Facility (ConditionOfFacility)
 - 7.3.1.3. Maintenance Authority (MaintenanceAuthority)
 - 7.3.1.4. Marker Post (MarkerPost)
 - 7.3.1.5. Owner Authority (OwnerAuthority)
 - 7.3.1.6. Restriction For Vehicles (RestrictionForVehicles)
 - 7.3.1.7. Traffic Flow Direction (TrafficFlowDirection)
 - Attributes of the spatial object type TrafficFlowDirection
 - Constraints of the spatial object type TrafficFlowDirection
 - 7.3.1.8. Transport Area (TransportArea)
 - Attributes of the spatial object type TransportArea
 - Constraints of the spatial object type TransportArea
 - 7.3.1.9. Transport Link (TransportLink)
 - Attributes of the spatial object type TransportLink
 - Constraints of the spatial object type TransportLink
 - 7.3.1.10. Transport Link Sequence (TransportLinkSequence)
 - Attributes of the spatial object type TransportLinkSequence
 - Constraints of the spatial object type TransportLinkSequence
 - 7.3.1.11. Transport Link Set (TransportLinkSet)
 - Attributes of the spatial object type TransportLinkSet
 - Association roles of the spatial object type TransportLinkSet
 - Constraints of the spatial object type TransportLinkSet
 - 7.3.1.12. Transport Network (TransportNetwork)
 - 7.3.1.13. Transport Node (TransportNode)
 - Attributes of the spatial object type TransportNode
 - Constraints of the spatial object type TransportNode
 - 7.3.1.14. Transport Object (TransportObject)
 - 7.3.1.15. Transport Point (TransportPoint)
 - Attributes of the spatial object type TransportPoint
 - Constraints of the spatial object type TransportPoint
 - 7.3.1.16. Transport Property (TransportProperty)
 - Attributes of the spatial object type TransportProperty
 - Constraints of the spatial object type TransportProperty
 - 7.3.1.17. Vertical Position (VerticalPosition)
- 7.3.2. Enumerations
 - 7.3.2.1. Transport Type (TransportTypeValue)
- 7.3.3. Code Lists
 - 7.3.3.1. Access Restriction (AccessRestrictionValue)
 - 7.3.3.2. Restriction Type (RestrictionTypeValue)
- 7.4. Air Transport Network
 - 7.4.1. Spatial Object Types
 - 7.4.1.1. Aerodrome Area (AerodromeArea)
 - 7.4.1.2. Aerodrome Category (AerodromeCategory)
 - Attributes of the spatial object type AerodromeCategory

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- Constraints of the spatial object type
AerodromeCategory
- 7.4.1.3. Aerodrome Node (AerodromeNode)
- 7.4.1.4. Aerodrome Type (AerodromeType)
 - Attributes of the spatial object type AerodromeType
 - Constraints of the spatial object type AerodromeType
- 7.4.1.5. Air Link (AirLink)
- 7.4.1.6. Air Link Sequence (AirLinkSequence)
- 7.4.1.7. Air Node (AirNode)
- 7.4.1.8. Air Route (AirRoute)
- 7.4.1.9. Air Route Link (AirRouteLink)
- 7.4.1.10. Airspace Area (AirspaceArea)
- 7.4.1.11. Apron Area (ApronArea)
- 7.4.1.12. Condition Of Air Facility (ConditionOfAirFacility)
 - Constraints of the spatial object type
ConditionOfAirFacility
- 7.4.1.13. Designated Point (DesignatedPoint)
- 7.4.1.14. Element Length (ElementLength)
 - Attributes of the spatial object type ElementLength
 - Constraints of the spatial object type ElementLength
- 7.4.1.15. Element Width (ElementWidth)
 - Attributes of the spatial object type ElementWidth
 - Constraints of the spatial object type ElementWidth
- 7.4.1.16. Field Elevation (FieldElevation)
 - Attributes of the spatial object type FieldElevation
 - Constraints of the spatial object type FieldElevation
- 7.4.1.17. Instrument Approach Procedure
(InstrumentApproachProcedure)
- 7.4.1.18. Lower Altitude Limit (LowerAltitudeLimit)
 - Attributes of the spatial object type
LowerAltitudeLimit
 - Constraints of the spatial object type
LowerAltitudeLimit
- 7.4.1.19. Navaid (Navaid)
- 7.4.1.20. Procedure Link (ProcedureLink)
- 7.4.1.21. Runway Area (RunwayArea)
- 7.4.1.22. Runway Centreline Point (RunwayCentrelinePoint)
- 7.4.1.23. Standard Instrument Arrival (StandardInstrumentArrival)
- 7.4.1.24. Standard Instrument Departure
(StandardInstrumentDeparture)
- 7.4.1.25. Surface Composition (SurfaceComposition)
 - Attributes of the spatial object type
SurfaceComposition
 - Constraints of the spatial object type
SurfaceComposition
- 7.4.1.26. Taxiway Area (TaxiwayArea)
- 7.4.1.27. Touch Down Lift Off Area (TouchDownLiftOff)
- 7.4.1.28. Upper Altitude Limit (UpperAltitudeLimit)
 - Attributes of the spatial object type
UpperAltitudeLimit
 - Constraints of the spatial object type
UpperAltitudeLimit
- 7.4.1.29. Use Restriction (UseRestriction)

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Attributes of the spatial object type UseRestriction
Constraints of the spatial object type UseRestriction

- 7.4.2. Code Lists
 - 7.4.2.1. Aerodrome Category (AerodromeCategoryValue)
 - 7.4.2.2. Aerodrome Type (AerodromeTypeValue)
 - 7.4.2.3. Air Route Link Class (AirRouteLinkClassValue)
 - 7.4.2.4. Air Route Type (AirRouteTypeValue)
 - 7.4.2.5. Air Use Restriction (AirUseRestrictionValue)
 - 7.4.2.6. Airspace Area Type (AirspaceAreaTypeValue)
 - 7.4.2.7. Navaid Type (NavaidTypeValue)
 - 7.4.2.8. Point Role (PointRoleValue)
 - 7.4.2.9. Runway Type (RunwayTypeValue)
 - 7.4.2.10 Surface Composition (SurfaceCompositionValue)
- 7.5. Cable Transport Network
 - 7.5.1. Spatial Object Types
 - 7.5.1.1. Cableway Link (CablewayLink)
 - 7.5.1.2. Cableway Link Sequence (CablewayLinkSequence)
 - 7.5.1.3. Cableway Link Set (CablewayLinkSet)
 - 7.5.1.4. Cableway Node (CablewayNode)
 - 7.5.2. Code Lists
 - 7.5.2.1. Cableway Type (CablewayTypeValue)
- 7.6. Railway Transport Network
 - 7.6.1. Spatial Object Types
 - 7.6.1.1. Design Speed (DesignSpeed)
 - Attributes of the spatial object type DesignSpeed
 - Constraints of the spatial object type DesignSpeed
 - 7.6.1.2. Nominal Track Gauge (NominalTrackGauge)
 - Attributes of the spatial object type
NominalTrackGauge
 - Constraints of the spatial object type
NominalTrackGauge
 - 7.6.1.3. Number Of Tracks (NumberOfTracks)
 - Attributes of the spatial object type NumberOfTracks
 - Constraints of the spatial object type NumberOfTracks
 - 7.6.1.4. Railway Area (RailwayArea)
 - 7.6.1.5. Railway Electrification (RailwayElectrification)
 - Attributes of the spatial object type
RailwayElectrification
 - Constraints of the spatial object type
RailwayElectrification
 - 7.6.1.6. Railway Line (RailwayLine)
 - 7.6.1.7. Railway Link (RailwayLink)
 - 7.6.1.8. Railway Link Sequence (RailwayLinkSequence)
 - 7.6.1.9. Railway Node (RailwayNode)
 - 7.6.1.10 Railway Station Area (RailwayStationArea)
 - 7.6.1.11 Railway Station Code (RailwayStationCode)
 - Attributes of the spatial object type
RailwayStationCode
 - Constraints of the spatial object type
RailwayStationCode
 - 7.6.1.12 Railway Station Node (RailwayStationNode)
 - Attributes of the spatial object type
RailwayStationNode

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- 7.7.1.15 Constraints of the spatial object type RoadWidth
Speed Limit (SpeedLimit)
Attributes of the spatial object type SpeedLimit
Constraints of the spatial object type SpeedLimit
- 7.7.1.16 Vehicle Traffic Area (VehicleTrafficArea)
- 7.7.2. Enumerations
 - 7.7.2.1. Functional Road Class (FunctionalRoadClassValue)
 - 7.7.2.2. Minimum Or Maximum Lane Number (MinMaxLaneValue)
 - 7.7.2.3. Nature Of Speed Limit (SpeedLimitMinMaxValue)
- 7.7.3. Code Lists
 - 7.7.3.1. Area Condition (AreaConditionValue)
 - 7.7.3.2. Form Of Road Node (FormOfRoadNodeValue)
 - 7.7.3.3. Form Of Way (FormOfWayValue)
 - 7.7.3.4. Road Part (RoadPartValue)
 - 7.7.3.5. Road Service Type (RoadServiceTypeValue)
 - 7.7.3.6. Road Surface Category (RoadSurfaceCategoryValue)
 - 7.7.3.7. Service Facility (ServiceFacilityValue)
 - 7.7.3.8. Speed Limit Source (SpeedLimitSourceValue)
 - 7.7.3.9. Vehicle Type (VehicleTypeValue)
 - 7.7.3.10. Weather Condition (WeatherConditionValue)
- 7.8. Water Transport Network
 - 7.8.1. Spatial Object Types
 - 7.8.1.1. Beacon (Beacon)
 - 7.8.1.2. Buoy (Buoy)
 - 7.8.1.3. CEMT Class (CEMTClass)
Attributes of the spatial object type CEMTClass
Constraints of the spatial object type CEMTClass
 - 7.8.1.4. Condition Of Water Facility (ConditionOfWaterFacility)
Constraints of the spatial object type
ConditionOfWaterFacility
 - 7.8.1.5. Fairway Area (FairwayArea)
 - 7.8.1.6. Ferry Crossing (FerryCrossing)
 - 7.8.1.7. Ferry Use (FerryUse)
Attributes of the spatial object type FerryUse
Constraints of the spatial object type FerryUse
 - 7.8.1.8. Inland Waterway (InlandWaterway)
 - 7.8.1.9. Marine Waterway (MarineWaterway)
 - 7.8.1.10. Port Area (PortArea)
 - 7.8.1.11. Port Node (PortNode)
 - 7.8.1.12. Restriction For Water Vehicles (RestrictionForWaterVehicles)
Constraints of the spatial object type
RestrictionForWaterVehicles
 - 7.8.1.13. Traffic Separation Scheme (TrafficSeparationScheme)
 - 7.8.1.14. Traffic Separation Scheme Area
(TrafficSeparationSchemeArea)
 - 7.8.1.15. Traffic Separation Scheme Crossing
(TrafficSeparationSchemeCrossing)
 - 7.8.1.16. Traffic Separation Scheme Lane
(TrafficSeparationSchemeLane)
 - 7.8.1.17. Traffic Separation Scheme Roundabout
(TrafficSeparationSchemeRoundabout)
 - 7.8.1.18. Traffic Separation Scheme Separator
(TrafficSeparationSchemeSeparator)

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- 7.8.1.19. Water Link Sequence (WaterLinkSequence)
- 7.8.1.20. Water Node (WaterNode)
- 7.8.1.21. Water Traffic Flow Direction (WaterTrafficFlowDirection)
 - Constraints of the spatial object type WaterTrafficFlowDirection
- 7.8.1.22. Waterway (Waterway)
- 7.8.1.23. Waterway Link (WaterwayLink)
- 7.8.1.24. Waterway Node (WaterwayNode)
- 7.8.2. Enumerations
 - 7.8.2.1. CEMT Class (CEMTClassValue)
- 7.8.3. Code Lists
 - 7.8.3.1. Ferry Use (FerryUseValue)
 - 7.8.3.2. Form Of Waterway Node (FormOfWaterwayNodeValue)
- 7.9. Theme-specific Requirements
 - 7.9.1. Consistency between spatial data sets
 - 1. Transport Networks centreline representations and nodes shall always be located...
 - 2. Connectivity between Transport Networks across state borders and – where...
 - 7.9.2. Modelling of object references
 - 1. When linear referencing is used in Transport Networks data, the...
 - 2. An inter-modal connection shall always reference two elements which belong...
 - 7.9.3. Geometry representation
 - 1. Transport link ends shall be connected wherever an intersection exists...
 - 2. In a Transport Networks data set which contains nodes, these...
 - 7.9.4. Modelling of object references
 - 7.9.5. Centrelines
 - 7.9.6. Ensuring Network Connectivity
 - 1. Wherever a connection exists in a transport network, all connected...
 - 2. Link ends and nodes that are not connected shall always...
 - 3. In data sets where both transport links and nodes are...
- 7.10. Layers
- 8. HYDROGRAPHY
 - 8.1. Definitions
 - 8.2. Structure of the Spatial Data Theme Hydrography
 - 8.3. Hydro - base
 - 8.3.1. Spatial Object Types
 - 8.3.1.1. Hydro Object (HydroObject)
 - 8.3.2. Data Types
 - 8.3.2.1. Hydro Identifier (HydroIdentifier)
 - 8.4. Hydro - Network
 - 8.4.1. Spatial Object Types
 - 8.4.1.1. Hydro Node (HydroNode)
 - 8.4.1.2. Watercourse Link (WatercourseLink)
 - 8.4.1.3. Watercourse Link Sequence (WatercourseLinkSequence)
 - 8.4.1.4. Watercourse Separated Crossing (WatercourseSeparatedCrossing)
 - 8.4.2. Code Lists

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- 8.4.2.1. Hydro Node Category (HydroNodeCategoryValue)
- 8.5. Hydro - Physical Waters
 - 8.5.1. Spatial Object Types
 - 8.5.1.1. Crossing (Crossing)
 - 8.5.1.2. Dam Or Weir (DamOrWeir)
 - 8.5.1.3. Drainage Basin (DrainageBasin)
 - Attributes of the spatial object type DrainageBasin
 - Association roles of the spatial object type DrainageBasin
 - Constraints of the spatial object type DrainageBasin
 - 8.5.1.4. Embankment (Embankment)
 - 8.5.1.5. Falls (Falls)
 - 8.5.1.6. Fluvial Point (FluvialPoint)
 - 8.5.1.7. Ford (Ford)
 - 8.5.1.8. Hydro Point Of Interest (HydroPointOfInterest)
 - 8.5.1.9. Hydro Power Plant (HydroPowerPlant)
 - 8.5.1.10. Inundated Land (InundatedLand)
 - 8.5.1.11. Land-Water Boundary (LandWaterBoundary)
 - 8.5.1.12. Lock (Lock)
 - 8.5.1.13. Man-made Object (ManMadeObject)
 - 8.5.1.14. Ocean Region (OceanRegion)
 - 8.5.1.15. Pipe (Pipe)
 - 8.5.1.16. Pumping Station (PumpingStation)
 - 8.5.1.17. Rapids (Rapids)
 - 8.5.1.18. River Basin (RiverBasin)
 - 8.5.1.19. Shore (Shore)
 - 8.5.1.20. Shoreline Construction (ShorelineConstruction)
 - 8.5.1.21. Sluice (Sluice)
 - 8.5.1.22. Standing Water (StandingWater)
 - Attributes of the spatial object type StandingWater
 - Constraints of the spatial object type StandingWater
 - 8.5.1.23. Surface Water (SurfaceWater)
 - 8.5.1.24. Watercourse (Watercourse)
 - Attributes of the spatial object type Watercourse
 - Constraints of the spatial object type Watercourse
 - 8.5.1.25. Wetland (Wetland)
 - 8.5.2. Data Types
 - 8.5.2.1. Hydro Order Code (HydroOrderCode)
 - 8.5.2.2. Width Range (WidthRange)
 - 8.5.3. Enumerations
 - 8.5.3.1. Origin (OriginValue)
 - 8.5.4. Code Lists
 - 8.5.4.1. Crossing Type (CrossingTypeValue)
 - 8.5.4.2. Hydrological Persistence (HydrologicalPersistenceValue)
 - 8.5.4.3. Inundation (InundationValue)
 - 8.5.4.4. Shore Type (ShoreTypeValue)
 - 8.5.4.5. Water Level (WaterLevelValue)
- 8.6. Hydro - Reporting
 - 8.6.1. Spatial Object Types
 - 8.6.1.1. WFD Coastal Water (WFDCoastalWater)
 - Constraints of the spatial object type WFDCoastalWater
 - 8.6.1.2. WFD Ground Water Body (WFDGroundWaterBody)

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- 8.6.1.3. WFD Lake (WFDLake)
 - Constraints of the spatial object type WFDLake
- 8.6.1.4. WFD River (WFDRiver)
 - Constraints of the spatial object type WFDRiver
- 8.6.1.5. WFD River Or Lake (WFDRiverOrLake)
- 8.6.1.6. WFD Surface Water Body (WFDSurfaceWaterBody)
 - Attributes of the spatial object type WFDSurfaceWaterBody
 - Constraints of the spatial object type WFDSurfaceWaterBody
- 8.6.1.7. WFD Transitional Water (WFDTransitionalWater)
 - Constraints of the spatial object type WFDTransitionalWater
- 8.6.1.8. WFD Water Body (WFDWaterBody)
- 8.7. Theme-specific Requirements
 - 8.7.1. Consistency between spatial data sets
 - 1. Hydrography links, centrelines and nodes shall always be located within...
 - 2. Connectivity between hydrographic networks across state borders and – where...
 - 3. All attribution of objects in this schema shall be the...
 - 8.7.2. Identifier management
 - 1. If a geographical name is used as a unique hydrologic...
 - 2. The localId attribute of the external object identifier of a...
 - 8.7.3. Modelling of object references
 - 1. If the same real world object in a data set...
 - 2. When linear referencing is used in hydrographic Network data, the...
 - 8.7.4. Geometry representation
 - 1. If spatial objects are provided at different spatial resolutions, the...
 - 2. Watercourse links shall intersect wherever a connection exists between the...
 - 3. In a hydrographic network data set which contains nodes, these...
 - 4. The geometry shall be the same as the geometry used...
 - 8.7.5. Use of the DelineationKnown Attribute
 - 1. The attribute delineationKnown shall not be used to indicate that...
 - 2. The attribute delineationKnown shall not be used to indicate a...
 - 8.7.6. Centrelines
 - 8.7.7. Ensuring Network Connectivity
 - 1. Wherever a connection exists in a hydrographic network, all connected...
 - 2. Link ends and nodes that are not connected shall always...
 - 3. In data sets where both transport links and nodes are...
- 8.8. Layers
- 9. PROTECTED SITES
 - 9.1. Spatial Object Types
 - 9.1.1 Protected Site (ProtectedSite)
 - 9.2. Data Types

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- 9.2.1 Designation Type (DesignationType)
 - Attributes of the data type DesignationType
 - Constraints of the data type DesignationType
- 9.3. Enumerations
 - 9.3.1 Protection Classification (ProtectionClassificationValue)
- 9.4. Code Lists
 - 9.4.1. Designation Scheme (DesignationSchemeValue)
 - 9.4.2. Designation (DesignationValue)
 - 9.4.3. IUCN Designation (IUCNDesignationValue)
 - 9.4.4. National Monuments Record Designation (NationalMonumentsRecordDesignationValue)
 - 9.4.5. Natura2000 Designation (Natura2000DesignationValue)
 - 9.4.6. Ramsar Designation (RamsarDesignationValue)
 - 9.4.7. UNESCO Man And Biosphere Programme Designation (UNESCOManAndBiosphereProgrammeDesignationValue)
 - 9.4.8. UNESCO World Heritage Designation (UNESCOWorldHeritageDesignationValue)
- 9.5. Layers

ANNEX III

REQUIREMENTS FOR SPATIAL DATA THEMES LISTED IN ANNEX II TO DIRECTIVE 2007/2/EC

- 1. ELEVATION
 - 1.1. Definitions
 - 1.2. Structure of the Spatial Data Theme Elevation
 - 1.3. Elevation – Base Types
 - 1.3.1. Enumerations
 - 1.3.1.1. Elevation Property Type (ElevationPropertyTypeValue)
 - Values for the enumeration ElevationPropertyTypeValue
 - 1.3.1.2. Surface Type (SurfaceTypeValue)
 - Values for the enumeration SurfaceTypeValue
 - 1.4. Elevation – Grid Coverage.
 - 1.4.1. Spatial object types
 - 1.4.1.1. Elevation Grid Coverage (ElevationGridCoverage)
 - Attributes of the spatial object type ElevationGridCoverage
 - Association roles of the spatial object type ElevationGridCoverage
 - Constraints of the spatial object type ElevationGridCoverage
 - 1.4.2. Data types
 - 1.4.2.1. Elevation Grid Coverage Aggregation (ElevationGridCoverageAggregation)
 - Attributes of the data type ElevationGridCoverageAggregation
 - 1.5. Elevation - Vector Elements
 - 1.5.1. Spatial object types
 - 1.5.1.1. Elevation Vector Object (ElevationVectorObject)

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- Attributes of the spatial object type ElevationVectorObject
- 1.5.1.2. Spot Elevation (SpotElevation)
 - Attributes of the spatial object type SpotElevation
 - Constraints of the spatial object type SpotElevation
- 1.5.1.3. Contour Line (ContourLine)
 - Attributes of the spatial object type ContourLine
 - Constraints of the spatial object type ContourLine
- 1.5.1.4. Breakline (BreakLine)
 - Attributes of the spatial object type BreakLine
- 1.5.1.5. Void Area (VoidArea)
 - Attributes of the spatial object type VoidArea
- 1.5.1.6. Isolated Area (IsolatedArea)
 - Attributes of the spatial object type IsolatedArea
- 1.5.2. Data types
 - 1.5.2.1. Chart Datum (ChartDatum)
 - Attributes of the data type ChartDatum
- 1.5.3. Enumerations
 - 1.5.3.1. Contour Line Type (ContourLineTypeValue)
 - Values for the enumeration ContourLineTypeValue
- 1.5.4. Code lists
 - 1.5.4.1. Breakline Type (BreakLineTypeValue)
 - Values for the code list BreakLineTypeValue
 - 1.5.4.2. Spot Elevation Classification (SpotElevationClassValue)
 - 1.5.4.3. Spot Elevation Type (SpotElevationTypeValue)
 - Values for the code list SpotElevationTypeValue
- 1.6. Elevation - TIN
 - 1.6.1. Spatial object types
 - 1.6.1.1. Elevation TIN (ElevationTIN)
 - Attributes of the spatial object type ElevationTIN
- 1.7. Theme-specific Requirements
 - 1.7.1. Requirements on external object identifiers
 - (1) If elevation data is updated based on new source data,...
 - 1.7.2. Requirements for Elevation Grid Coverages
 - (1) By way of derogation from the requirement in Section 2.2...
 - (2) The domainExtent attribute of every ElevationGridCoverage instance shall be at...
 - (3) The elevation property values included within the range set of...
 - (4) All the ElevationGridCoverage instances, to which an aggregated ElevationGridCoverage instance...
 - (5) The contributing footprints of any two ElevationGridCoverage instances referred to...
 - (6) The union of the contributing footprints of the ElevationGridCoverage instances...
 - (7) The ElevationGridCoverage package shall be restricted to two-dimensional geometries.
 - (8) Information about the acquisition dates of data contained in elevation...
 - 1.7.3. Requirements for Elevation Vector Data
 - (1) Where elevation vector data sets are provided using 2-D geometries,...

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- (2) Where elevation vector data sets are provided using 2.5-D geometries,...
 - 1.7.4. Requirements for Elevation TINs
 - (1) The property values included within a single instance of ElevationTIN...
 - (2) Triangles intersecting a stop line shall be removed from a...
 - (3) The vector spatial objects provided as components of a TIN...
 - 1.7.5. Requirements on reference systems
 - (1) For measuring the depth of the sea floor where there...
 - (2) For measuring the depth of the sea floor in marine...
 - (3) The height of the reference level to which the depth...
 - (4) When providing an integrated land-sea elevation model, only one elevation...
 - 1.7.6. Requirements on data quality and consistency
 - (1) If measures other than ISO data quality measures have been...
 - (2) Connected contour line spatial objects shall have the same elevation...
 - (3) When the elevation values of break line spatial objects are...
 - (4) When a contour line spatial object and a break line...
 - (5) Contour line spatial objects having different elevation value shall neither...
 - (6) The boundary of an isolated area spatial object shall not...
 - 1.8. Layers
 - Layers for the spatial data theme Elevation
- 2. LAND COVER
 - 2.1. Definitions
 - 2.2. Structure of the Spatial Data Theme Land Cover
 - 2.3. Land Cover Nomenclature
 - 2.3.1. Data types
 - 2.3.1.1. Land Cover Nomenclature (LandCoverNomenclature)
 - Attributes of the data type LandCoverNomenclature
 - Constraints of the data type LandCoverNomenclature
 - 2.3.2. Code lists
 - 2.3.2.1. Land Cover Class (LandCoverClassValue)
 - 2.4. Land Cover Vector
 - 2.4.1. Spatial object types
 - 2.4.1.1. Land Cover Data Set (LandCoverDataset)
 - Attributes of the spatial object type LandCoverDataset
 - Association roles of the spatial object type LandCoverDataset
 - 2.4.1.2. Land Cover Unit (LandCoverUnit)
 - Attributes of the spatial object type LandCoverUnit
 - Constraints of the spatial object type LandCoverUnit
 - 2.4.2. Data types
 - 2.4.2.1. Land Cover Observation (LandCoverObservation)
 - Attributes of the data type LandCoverObservation
 - Constraints of the spatial object type LandCoverObservation
 - 2.4.2.2. Land Cover (LandCoverValue)
 - Attributes of the data type LandCoverValue
 - 2.5. Land Cover Raster
 - 2.5.1. Spatial object types

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- 2.5.1.1. Land Cover Grid Coverage (LandCoverGridCoverage)
 - Attributes of the spatial object type LandCoverGridCoverage
 - Constraints of the spatial object type LandCoverGridCoverage
- 2.6. Theme-specific Requirements
- 2.7. Layers
 - Layers for the spatial data theme Land Cover
- 3. ORTHOIMAGERY
 - 3.1. Definitions
 - 3.2. Spatial object types
 - 3.2.1. Orthoimage Coverage (OrthoimageCoverage)
 - Attributes of the spatial object type OrthoimageCoverage
 - Association roles of the spatial object type OrthoimageCoverage
 - Constraints of the spatial object type OrthoimageCoverage
 - 3.2.2. Mosaic Element (MosaicElement)
 - Attributes of the spatial object type MosaicElement
 - 3.2.3. Single Mosaic Element (SingleMosaicElement)
 - Attributes of the spatial object type SingleMosaicElement
 - 3.2.4. Aggregated Mosaic Element (AggregatedMosaicElement)
 - 3.3. Data types
 - 3.3.1. Orthoimage Aggregation (OrthoimageAggregation)
 - Attributes of the data type OrthoimageAggregation
 - 3.4. Code lists
 - 3.4.1. Interpolation Method (InterpolationMethodValue)
 - Values for the code list InterpolationTypeValue
 - 3.5. Theme-specific Requirements
 - 3.5.1. Requirements on external object identifiers
 - (1) If an orthoimage is updated based on new source data,...
 - 3.5.2. Requirements for Orthoimage Coverages
 - (1) By way of derogation from the requirement in Section 2.2...
 - (2) The footprint of an OrthoimageCoverage instance shall be spatially included...
 - (3) The value type of the metadata property carried by the...
 - (4) All the OrthoimageCoverage instances, to which an aggregated OrthoimageCoverage instance...
 - (5) The contributing footprint of an OrthoimageCoverage instance referred by an...
 - (6) The contributing footprints of any two OrthoimageCoverage instances referred to...
 - (7) The union of the contributing footprints of the OrthoimageCoverage instances...
 - 3.5.3. Requirements for mosaic elements
 - (1) All the mosaic elements related to an OrthoimageCoverage instance shall...
 - (2) The geometries delineating any two MosaicElement instances related to the...
 - (3) The union of the geometries delineating all MosaicElement instances related...
 - 3.5.4. Requirements on reference systems
 - (1) Data related to the spatial data theme Orthoimagery shall be...

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- (2) Only two-dimensional coordinate reference systems shall be used to represent...
 - 3.5.5. Requirements on data quality
 - (1) The measures ‘ root mean square error in X ’...
 - 3.6. Layers
 - Layers for the spatial data theme Orthoimagery
- 4. GEOLOGY
 - 4.1. Structure of the Spatial Data Theme Geology
 - 4.2. Geology
 - 4.2.1. Spatial object types
 - 4.2.1.1. Anthropogenic Geomorphologic Feature
(AnthropogenicGeomorphologicFeature)
Attributes of the spatial object type
AnthropogenicGeomorphologicFeature
 - 4.2.1.2. Borehole (Borehole)
Attributes of the spatial object type Borehole
Association roles of the spatial object type Borehole
 - 4.2.1.3. Fold (Fold)
Attributes of the spatial object type Fold
 - 4.2.1.4. Geologic Collection (GeologicCollection)
Attributes of the spatial object type
GeologicCollection
Association roles of the spatial object type
GeologicCollection
 - 4.2.1.5. Geologic Event (GeologicEvent)
Attributes of the spatial object type GeologicEvent
 - 4.2.1.6. Geologic Feature (GeologicFeature)
Attributes of the spatial object type GeologicFeature
Association roles of the spatial object type
GeologicFeature
 - 4.2.1.7. Geologic Structure (GeologicStructure)
 - 4.2.1.8. Geologic Unit (GeologicUnit)
Attributes of the spatial object type GeologicUnit
Association roles of the spatial object type
GeologicUnit
 - 4.2.1.9. Geomorphologic Feature (GeomorphologicFeature)
 - 4.2.1.10 Mapped Feature (MappedFeature)
Attributes of the spatial object type MappedFeature
Association roles of the spatial object type
MappedFeature
 - 4.2.1.11 Mapped Interval (MappedInterval)
 - 4.2.1.12 Natural Geomorphologic Feature
(NaturalGeomorphologicFeature)
Attributes of the spatial object type
NaturalGeomorphologicFeature
 - 4.2.1.13 Shear Displacement Structure (ShearDisplacementStructure)
Attributes of the spatial object type
ShearDisplacementStructure
 - 4.2.2. Data types
 - 4.2.2.1. Composition Part (CompositionPart)
Attributes of the data type CompositionPart
 - 4.2.2.2. Thematic Class (ThematicClass)

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Attributes of the data type ThematicClass

- 4.2.3. Code lists
 - 4.2.3.1. Anthropogenic Geomorphologic Feature Type
(AnthropogenicGeomorphologicFeatureTypeValue)
Values for the code list AnthropogenicGeomorphologicFeatureTypeValue
 - 4.2.3.2. Borehole Purpose (BoreholePurposeValue)
Values for the code list BoreholePurposeValue
 - 4.2.3.3. Collection Type (CollectionTypeValue)
Values for the code list CollectionTypeValue
 - 4.2.3.4. Composition Part Role (CompositionPartRoleValue)
Values for the code list CompositionPartRoleValue
 - 4.2.3.5. Event Environment (EventEnvironmentValue)
Values for the code list EventEnvironmentValue
 - 4.2.3.6. Event Process (EventProcessValue)
Values for the code list EventProcessValue
 - 4.2.3.7. Fault Type (FaultTypeValue)
Values for the code list FaultTypeValue
 - 4.2.3.8. Fold Profile Type (FoldProfileTypeValue)
Values for the code list FoldProfileTypeValue
 - 4.2.3.9. Geochronologic Era (GeochronologicEraValue)
 - 4.2.3.10. Geologic Unit Type (GeologicUnitTypeValue)
Values for the code list GeologicUnitTypeValue
 - 4.2.3.11. Geomorphologic Activity (GeomorphologicActivityValue)
Values for the code list GeomorphologicActivityValue
 - 4.2.3.12. Lithology (LithologyValue)
Values for the code list LithologyValue
 - 4.2.3.13. Mapping Frame (MappingFrameValue)
Values for the code list MappingFrameValue
 - 4.2.3.14. Natural Geomorphologic Feature Type
(NaturalGeomorphologicFeatureTypeValue)
Values for the code list NaturalGeomorphologicFeatureTypeValue
 - 4.2.3.15. Thematic Class (ThematicClassValue)
 - 4.2.3.16. Thematic Classification (ThematicClassificationValue)
- 4.3. Geophysics
 - 4.3.1. Spatial object types
 - 4.3.1.1. Campaign (Campaign)
Attributes of the spatial object type Campaign
Constraints of the spatial object type Campaign
 - 4.3.1.2. Geophysical Object (GeophObject)
Attributes of the spatial object type GeophObject
Constraints of the spatial object type GeophObject
 - 4.3.1.3. Geophysical Measurement (GeophMeasurement)
Attributes of the spatial object type GeophMeasurement
 - 4.3.1.4. Geophysical Object Set (GeophObjectSet)
Attributes of the spatial object type GeophObjectSet
Constraints of the spatial object type GeophObjectSet
 - 4.3.1.5. Geophysical Profile (GeophProfile)
Attributes of the spatial object type GeophProfile
Constraints of the spatial object type GeophProfile
 - 4.3.1.6. Geophysical Station (GeophStation)

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- Attributes of the spatial object type GeophStation
- Constraints of the spatial object type GeophStation
- 4.3.1.7. Geophysical Swath (GeophSwath)
 - Attributes of the spatial object type GeophSwath
 - Constraints of the spatial object type GeophSwath
- 4.3.2. Code lists
 - 4.3.2.1. Campaign Type (CampaignTypeValue)
 - Values for the code list CampaignTypeValue
 - 4.3.2.2. Network Name (NetworkNameValue)
 - Values for the code list NetworkNameValue
 - 4.3.2.3. Platform Type (PlatformTypeValue)
 - Values for the code list PlatformTypeValue
 - 4.3.2.4. Profile Type (ProfileTypeValue)
 - Values for the code list ProfileTypeValue
 - 4.3.2.5. Station Rank (StationRankValue)
 - Values for the code list StationRankValue
 - 4.3.2.6. Station Type (StationTypeValue)
 - Values for the code list StationTypeValue
 - 4.3.2.7. Survey Type (SurveyTypeValue)
 - Values for the code list SurveyTypeValue
 - 4.3.2.8. Swath Type (SwathTypeValue)
 - Values for the code list SwathTypeValue
- 4.4. Hydrogeology
 - 4.4.1. Spatial object types
 - 4.4.1.1. Active Well (ActiveWell)
 - Attributes of the spatial object type ActiveWell
 - Association roles of the spatial object type ActiveWell
 - 4.4.1.2. Aquiclude (Aquiclude)
 - 4.4.1.3. Aquifer (Aquifer)
 - Attributes of the spatial object type Aquifer
 - Association roles of the spatial object type Aquifer
 - 4.4.1.4. Aquifer System (AquiferSystem)
 - Attributes of the spatial object type AquiferSystem
 - Association roles of the spatial object type AquiferSystem
 - 4.4.1.5. Aquitard (Aquitard)
 - Attributes of the spatial object type Aquitard
 - Association roles of the spatial object type Aquitard
 - 4.4.1.6. Groundwater Body (GroundWaterBody)
 - Attributes of the spatial object type GroundWaterBody
 - Association roles of the spatial object type GroundWaterBody
 - 4.4.1.7. Hydrogeological Object (HydrogeologicalObject)
 - Attributes of the spatial object type HydrogeologicalObject
 - Association roles of the spatial object type HydrogeologicalObject
 - 4.4.1.8. Man-made Hydrogeological Object (HydrogeologicalObjectManMade)
 - Attributes of the spatial object type HydrogeologicalObjectManMade

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- 4.4.1.9. Natural Hydrogeological Object
(HydrogeologicalObjectNatural)
Attributes of the spatial object type
HydrogeologicalObjectNatural
Association roles of the spatial object type
HydrogeologicalObjectNatural
- 4.4.1.10 Hydrogeological Unit (HydrogeologicalUnit)
Attributes of the spatial object type
HydrogeologicalUnit
Association roles of the spatial object type
HydrogeologicalUnit
- 4.4.2. Data types
 - 4.4.2.1. Hydrogeological Surface (HydrogeologicalSurface)
Attributes of the union type HydrogeologicalSurface
 - 4.4.2.2. Piezometric State (PiezometricState)
Attributes of the data type PiezometricState
 - 4.4.2.3. Quantity Value (QuantityValue)
Attributes of the union type QuantityValue
- 4.4.3. Code lists
 - 4.4.3.1. Active Well Type (ActiveWellTypeValue)
Values for the code list ActiveWellTypeValue
 - 4.4.3.2. Aquifer Media Type (AquiferMediaTypeValue)
Values for the code list AquiferMediaTypeValue
 - 4.4.3.3. Aquifer Type (AquiferTypeValue)
Values for the code list AquiferTypeValue
 - 4.4.3.4. Condition Of Groundwater (ConditionOfGroundwaterValue)
Values for the code list
ConditionOfGroundwaterValue
 - 4.4.3.5. Hydrogeochemical Rock Type
(HydroGeochemicalRockTypeValue)
Values for the code list
HydroGeochemicalRockTypeValue
 - 4.4.3.6. Natural Object Type (NaturalObjectTypeValue)
Values for the code list NaturalObjectTypeValue
 - 4.4.3.7. Status Code Type (StatusCodeTypeValue)
Values for the code list StatusCodeTypeValue
 - 4.4.3.8. Water Persistence (WaterPersistenceValue)
Values for the code list WaterPersistenceValue
 - 4.4.3.9. Water Salinity (WaterSalinityValue)
Values for the code list WaterSalinityValue
- 4.5. Layers
Layers for the spatial data theme Geology

ANNEX IV

REQUIREMENTS FOR SPATIAL DATA THEMES LISTED IN ANNEX III TO DIRECTIVE 2007/2/EC

1. STATISTICAL UNITS
 - 1.1. Structure of the Spatial Data Theme Statistical Units
 - 1.2. Statistical Units Base
 - 1.2.1. Spatial object types

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- 1.2.1.1. Statistical Unit (StatisticalUnit)
- 1.3. Statistical Units Vector
 - 1.3.1. Spatial object types
 - 1.3.1.1. Vector Statistical Unit (VectorStatisticalUnit)
 - Attributes of the spatial object type VectorStatisticalUnit
 - Association roles of the spatial object type VectorStatisticalUnit
 - Constraints of the spatial object type VectorStatisticalUnit
 - 1.3.1.2. Area Statistical Unit (AreaStatisticalUnit)
 - Attributes of the spatial object type AreaStatisticalUnit
 - Association roles of the spatial object type AreaStatisticalUnit
 - Constraints of the spatial object type AreaStatisticalUnit
 - 1.3.1.3. Statistical Tessellation (StatisticalTessellation)
 - Attributes of the spatial object type StatisticalTessellation
 - Association roles of the spatial object type StatisticalTessellation
 - 1.3.1.4. Evolution (Evolution)
 - Attributes of the spatial object type Evolution
 - Association roles of the spatial object type Evolution
 - Constraints of the spatial object type Evolution
 - 1.3.2. Data types
 - 1.3.2.1. Vector Statistical Unit Geometry (VectorStatisticalUnitGeometry)
 - Attributes of the data type VectorStatisticalUnitGeometry
 - 1.3.2.2. Geometry Descriptor (GeometryDescriptor)
 - Attributes of the data type GeometryDescriptor
 - Constraints of the data type GeometryDescriptor
 - 1.3.3. Code lists
 - 1.3.3.1. Geometry Type (GeometryTypeValue)
 - Values for the code list GeometryTypeValue
 - 1.3.3.2. Evolution Type (EvolutionTypeValue)
- 1.4. Statistical Units Grid
 - 1.4.1. Spatial object types
 - 1.4.1.1. Statistical Grid Cell (StatisticalGridCell)
 - Attributes of the spatial object type StatisticalGridCell
 - Association roles of the spatial object type StatisticalGridCell
 - Constraints of the spatial object type StatisticalGridCell
 - 1.4.1.2. Statistical Grid (StatisticalGrid)
 - Attributes of the spatial object type StatisticalGrid
 - Association roles of the spatial object type StatisticalGrid
 - Constraints of the spatial object type StatisticalGrid
 - 1.4.2. Data types
 - 1.4.2.1. Grid Position (GridPosition)

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- Attributes of the data type GridPosition
 - 1.4.2.2. Statistical Grid Resolution (StatisticalGridResolution)
 - Attributes of the union type StatisticalGridResolution
- 1.5. Theme-specific Requirements
 - (1) At least the geometry of statistical units, for which statistical...
 - (2) For pan-European usage, the Equal Area Grid defined in Section...
 - (3) Statistical data shall refer to their statistical unit through the...
 - (4) Statistical data shall refer to a specific version of a...
- 1.6. Layers
 - Layers for the spatial data theme Statistical Units
2. BUILDINGS
 - 2.1. Definitions
 - 2.2. Structure of the Spatial Data Theme Buildings
 - 2.3. Buildings Base
 - 2.3.1. Spatial object types
 - 2.3.1.1. Abstract Construction (AbstractConstruction)
 - Attributes of the spatial object type AbstractConstruction
 - 2.3.1.2. Abstract Building (AbstractBuilding)
 - Attributes of the spatial object type AbstractBuilding
 - 2.3.1.3. Building (Building)
 - Association roles of the spatial object type Building
 - 2.3.1.4. Building Part (BuildingPart)
 - 2.3.2. Data types
 - 2.3.2.1. Current Use (CurrentUse)
 - Attributes of the data type CurrentUse
 - Constraints of the data type CurrentUse
 - 2.3.2.2. Date Of Event (DateOfEvent)
 - Attributes of the data type DateOfEvent
 - Constraints of the data type DateOfEvent
 - 2.3.2.3. Elevation (Elevation)
 - Attributes of the type Elevation
 - 2.3.2.4. External Reference (ExternalReference)
 - Attributes of the data type ExternalReference
 - 2.3.2.5. Height Above Ground (HeightAboveGround)
 - Attributes of the data type HeightAboveGround
 - Constraints of the data type HeightAboveGround
 - 2.3.2.6. Building Geometry2D (BuildingGeometry2D)
 - Attributes of the data type BuildingGeometry2D
 - Constraints of the data type BuildingGeometry2D
 - 2.3.3. Code lists
 - 2.3.3.1. Building Nature (BuildingNatureValue)
 - Values for the code list BuildingNatureValue
 - 2.3.3.2. Condition Of Construction (ConditionOfConstructionValue)
 - Values for the code list ConditionOfConstructionValue
 - 2.3.3.3. Current Use (CurrentUseValue)
 - Values for the code list CurrentUseValue
 - 2.3.3.4. Elevation Reference (ElevationReferenceValue)
 - Values for the code list ElevationReferenceValue
 - 2.3.3.5. Height Status (HeightStatusValue)
 - Values for the code list HeightStatusValue

	2.3.3.6. Horizontal (HorizontalGeometryReferenceValue)	Geometry Values for the HorizontalGeometryReferenceValue	Reference code list
2.4.	Buildings 2D		
2.4.1.	Spatial object types		
2.4.1.1.	Building (Building)	Attributes of the spatial object type Building Constraints of the spatial object type Building	
2.4.1.2.	Building Part (BuildingPart)	Attributes of the spatial object type BuildingPart Constraints of the spatial object type BuildingPart	
2.5.	Buildings 3D		
2.5.1.	Spatial object types		
2.5.1.1.	Building (Building)	Attributes of the spatial object type Building Constraints of the spatial object type Building	
2.5.1.2.	Building Part (BuildingPart)	Attributes of the spatial object type BuildingPart Constraints of the spatial object type BuildingPart	
2.5.2.	Data types		
2.5.2.1.	Building Geometry3D LoD (BuildingGeometry3DLoD)	Attributes of the data type BuildingGeometry3DLoD Constraints of the data type BuildingGeometry3DLoD	
2.5.2.2.	Building Geometry3D LoD1 (BuildingGeometry3DLoD1)	Attributes of the data type BuildingGeometry3DLoD1 Constraints of the data type BuildingGeometry3DLoD1	
2.5.2.3.	Building Geometry3D LoD2 (BuildingGeometry3DLoD2)	Attributes of the data type BuildingGeometry3DLoD2 Constraints of the data type BuildingGeometry3DLoD2	
2.6.	Theme-specific Requirements		
(1)	By way of derogation from article 12(1), the value domain...		
2.7.	Layers	Layers for the spatial data theme Buildings	
3.	SOIL		
3.1.	Spatial object types		
3.1.1.	Derived Soil Profile (DerivedSoilProfile)	Association roles of the spatial object type DerivedSoilProfile	
3.1.2.	Observed Soil Profile (ObservedSoilProfile)	Association roles of the spatial object type ObservedSoilProfile	
3.1.3.	Profile Element (ProfileElement)	Attributes of the spatial object type ProfileElement Association roles of the spatial object type ProfileElement Constraints of the spatial object type ProfileElement	
3.1.4.	Soil Body (SoilBody)	Attributes of the spatial object type SoilBody Association roles of the spatial object type SoilBody	
3.1.5.	Soil Derived Object (SoilDerivedObject)	Attributes of the spatial object type SoilDerivedObject	

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- Association roles of the spatial object type SoilDerivedObject
- Constraints of the spatial object type SoilDerivedObject
- 3.1.6. Soil Horizon (SoilHorizon)
 - Attributes of the spatial object type SoilHorizon
- 3.1.7. Soil Layer (SoilLayer)
 - Attributes of the spatial object type SoilLayer
 - Constraints of the spatial object type SoilLayer
- 3.1.8. Soil Plot (SoilPlot)
 - Attributes of the spatial object type SoilPlot
 - Association roles of the spatial object type SoilPlot
- 3.1.9. Soil Profile (SoilProfile)
 - Attributes of the spatial object type SoilProfile
 - Association roles of the spatial object type SoilProfile
 - Constraints of the spatial object type SoilProfile
- 3.1.10. Soil Site (SoilSite)
 - Attributes of the spatial object type SoilSite
 - Association roles of the spatial object type SoilSite
 - Constraints of the spatial object type SoilSite
- 3.1.11. Soil Theme Coverage (SoilThemeCoverage)
 - Attributes of the spatial object type SoilThemeCoverage
 - Association roles of the spatial object type SoilThemeCoverage
 - Constraints of the spatial object type SoilThemeCoverage
- 3.1.12. Soil Theme Descriptive Coverage (SoilThemeDescriptiveCoverage)
 - Attributes of the spatial object type SoilThemeDescriptiveCoverage
 - Association roles of the spatial object type SoilThemeDescriptiveCoverage
 - Constraints of the spatial object type SoilThemeDescriptiveCoverage
- 3.2. Data types
 - 3.2.1. Derived Profile Presence In Soil Body (DerivedProfilePresenceInSoilBody)
 - Attributes of the data type DerivedProfilePresenceInSoilBody
 - 3.2.2. FAO Horizon Notation Type (FAOHorizonNotationType)
 - Attributes of the data type FAOHorizonNotationType
 - 3.2.3. Other Horizon Notation Type (OtherHorizonNotationType)
 - Attributes of the data type OtherHorizonNotationType
 - 3.2.4. Other Soil Name Type (OtherSoilNameType)
 - Attributes of the data type OtherSoilNameType
 - 3.2.5. Particle Size Fraction Type (ParticleSizeFractionType)
 - Attributes of the data type ParticleSizeFractionType
 - 3.2.6. Range Type (RangeType)
 - Attributes of the data type RangeType
 - Constraints of the data type RangeType
 - 3.2.7. Soil Theme Descriptive Parameter Type (SoilThemeDescriptiveParameterType)
 - Attributes of the data type SoilThemeDescriptiveParameterType
 - 3.2.8. Soil Theme Parameter Type (SoilThemeParameterType)
 - Attributes of the data type SoilThemeParameterType
 - 3.2.9. WRB Qualifier Group Type (WRBQualifierGroupType)
 - Attributes of the data type WRBQualifierGroupType

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- 3.2.10. WRB Soil Name Type (WRBSoilNameType)
 - Attributes of the data type WRBSoilNameType
 - Association roles of the data type WRBSoilNameType
 - 3.3. Code lists
 - 3.3.1. FAO Horizon Master (FAOHorizonMasterValue)
 - 3.3.2. FAO Horizon Subordinate (FAOHorizonSubordinateValue)
 - 3.3.3. FAO Prime (FAOPrimeValue)
 - 3.3.4. Other Horizon Notation Type (OtherHorizonNotationTypeValue)
 - 3.3.5. Other Soil Name Type (OtherSoilNameTypeValue)
 - 3.3.6. Layer Genesis Process State (LayerGenesisProcessStateValue)
 - Values for the code list LayerGenesisProcessStateValue
 - 3.3.7. Layer Type (LayerTypeValue)
 - Values for the code list LayerTypeValue
 - 3.3.8. Profile Element Parameter Name (ProfileElementParameterNameValue)
 - Values for the code list ProfileElementParameterNameValue
 - 3.3.9. Soil Derived Object Parameter Name (SoilDerivedObjectParameterNameValue)
 - Values for the code list SoilDerivedObjectParameterNameValue
 - 3.3.10. Soil Investigation Purpose (SoilInvestigationPurposeValue)
 - Values for the code list SoilInvestigationPurposeValue
 - 3.3.11. Soil Plot Type (SoilPlotTypeValue)
 - Values for the code list SoilPlotTypeValue
 - 3.3.12. Soil Profile Parameter Name (SoilProfileParameterNameValue)
 - Values for the code list SoilProfileParameterNameValue
 - 3.3.13. Soil Site Parameter Name (SoilSiteParameterNameValue)
 - Values for the code list SoilSiteParameterNameValue
 - 3.3.14. WRB Qualifier Place (WRBQualifierPlaceValue)
 - 3.3.15. WRB Qualifiers (WRBQualifierValue)
 - 3.3.16. WRB Reference Soil Group (RSG) (WRBReferenceSoilGroupValue)
 - 3.3.17. WRB Specifiers (WRBSpecifierValue)
 - 3.4. Theme-specific Requirements
 - (1) The values of the first level hierarchical code lists ProfileElementParameterNameValue,...
 - (2) When an additional descriptive parameter for the soil derived object...
 - (3) Only one Other Horizon Notation Type classification shall be used...
 - (4) Only one Other Soil Name Type classification shall be used...
 - 3.5. Layers
 - Layers for the spatial data theme Soil
4. LAND USE
- 4.1. Definitions
 - 4.2. Structure of the Spatial Data Theme Land Use
 - 4.3. Land Use Nomenclature
 - 4.3.1. Data types
 - 4.3.1.1. HILUCS Percentage (HILUCSPercentage)
 - Attributes of the data type HILUCSPercentage
 - 4.3.1.2. HILUCS Presence (HILUCSPresence)
 - Attributes of the union type HILUCSPresence
 - 4.3.1.3. Specific Percentage (SpecificPercentage)
 - Attributes of the data type SpecificPercentage
 - 4.3.1.4. Specific Presence (SpecificPresence)

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- Attributes of the union type SpecificPresence
- 4.3.2. Code lists
 - 4.3.2.1. HILUCS (HILUCSValue)
 - Values for the code list HILUCSValue
 - 4.3.2.2. Land Use Classification (LandUseClassificationValue)
- 4.4. Existing Land Use
 - 4.4.1. Spatial object types
 - 4.4.1.1. Existing Land Use Data Set (ExistingLandUseDataSet)
 - Attributes of the spatial object type ExistingLandUseDataSet
 - Association roles of the spatial object type ExistingLandUseDataSet
 - 4.4.1.2. Existing Land Use Object (ExistingLandUseObject)
 - Attributes of the spatial object type ExistingLandUseObject
 - Association roles of the spatial object type ExistingLandUseObject
- 4.5. Gridded Land Use
 - 4.5.1. Spatial object types
 - 4.5.1.1. Existing Land Use Grid (ExistingLandUseGrid)
 - Attributes of the spatial object type ExistingLandUseGrid
 - Constraints of the spatial object type ExistingLandUseGrid
- 4.6. Sampled Land Use
 - 4.6.1. Spatial object types
 - 4.6.1.1. Existing Land Use Sample (ExistingLandUseSample)
 - Attributes of the spatial object type ExistingLandUseSample
 - Association roles of the spatial object type ExistingLandUseSample
 - 4.6.1.2. Sampled Existing Land Use Data Set (SampledExistingLandUseDataSet)
 - Attributes of the spatial object type SampledExistingLandUseDataSet
 - Association roles of the spatial object type SampledExistingLandUseDataSet
- 4.7. Planned Land Use
 - 4.7.1. Spatial object types
 - 4.7.1.1. Official Documentation (OfficialDocumentation)
 - Attributes of the spatial object type OfficialDocumentation
 - Constraints of the spatial object type OfficialDocumentation
 - 4.7.1.2. Spatial Plan (SpatialPlan)
 - Attributes of the spatial object type SpatialPlan
 - Association roles of the spatial object type SpatialPlan
 - 4.7.1.3. Supplementary Regulation (SupplementaryRegulation)
 - Attributes of the spatial object type SupplementaryRegulation
 - Association roles of the spatial object type SupplementaryRegulation
 - 4.7.1.4. Zoning Element (ZoningElement)

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Attributes of the spatial object type ZoningElement
Association roles of the spatial object type
ZoningElement

4.7.2. Data types

4.7.2.1. Background Map (BackgroundMapValue)

Attributes of the data type BackgroundMapValue

4.7.2.2. Character-valued Dimensioning Indication (DimensioningIndicationCharacterValue)

Attributes of the data type
DimensioningIndicationCharacterValue

4.7.2.3. Integer-valued Dimensioning Indication (DimensioningIndicationIntegerValue)

Attributes of the data type
DimensioningIndicationIntegerValue

4.7.2.4. Measure-valued Dimensioning Indication (DimensioningIndicationMeasureValue)

Attributes of the data type
DimensioningIndicationMeasureValue

4.7.2.5. Real-valued Dimensioning Indication (DimensioningIndicationRealValue)

Attributes of the data type
DimensioningIndicationRealValue

4.7.2.6. Dimensioning Indication (DimensioningIndicationValue)

Attributes of the data type
DimensioningIndicationValue

4.7.2.7. Ordinance (OrdinanceValue)

Attributes of the data type OrdinanceValue

4.7.3. Code lists

4.7.3.1. Level Of Spatial Plan (LevelOfSpatialPlanValue)

Values for the code list LevelOfSpatialPlanValue

4.7.3.2. Process Step General (ProcessStepGeneralValue)

Values for the code list ProcessStepGeneralValue

4.7.3.3. Regulation Nature (RegulationNatureValue)

Values for the code list RegulationNatureValue

4.7.3.4. Plan Type Name (PlanTypeNameValue)

4.7.3.5. Specific Supplementary Regulation (SpecificSupplementaryRegulationValue)

4.7.3.6. Supplementary Regulation (SupplementaryRegulationValue)

4.8. Theme-specific Requirements

- (1) Any Land Use data sets shall assign to each polygon,...
- (2) The spatial object type CoverageByDomainAndRange must only be of subtypes...
- (3) Where a zone has been established to regulate planned land...
- (4) Based on the INSPIRE horizontal coordinate reference system, each Member...
- (5) The use of the common metadata element ‘ Spatial Resolution...
- (6) Data providers shall include the following keywords in addition to...

4.9. Layers

Layers for the spatial data theme Land Use

5. HUMAN HEALTH AND SAFETY

5.1. Spatial object types

5.1.1. Health Statistical Data (HealthStatisticalData)

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- 5.3.5. Environment Health Determinant Type
(EnvHealthDeterminantTypeValue)
- 5.3.6. General Health Type (GeneralHealthTypeValue)
- 5.3.7. Health Services Type (HealthServicesTypeValue)
- 5.3.8. International Classification Of Diseases (ICDValue)
- 5.3.9. Matrix (MatrixValue)
- 5.3.10. Environmental Health Media Type (MediaTypeValue)
- 5.3.11. Noise Source Type (NoiseSourceTypeValue)
- 5.3.12. Statistical Aggregation Method (StatisticalAggregationMethodValue)
- 5.4. Theme-specific Requirements
 - (1) Statistical information on the spatial data theme Human Health and...
 - (2) Where possible, the ICDValue code list shall be used to...
 - (3) Raw measurement data shall be based on ISO/TS 19103:2005.
 - (4) Health determinant statistical data shall be modelled as health statistical...
 - (5) Health determinant coverages shall be represented using the spatial object...
- 5.5. Layers
Layers for the spatial data theme Human Health and Safety...
- 6. UTILITY AND GOVERNMENTAL SERVICES
 - 6.1. Structure of the Spatial Data Theme Utility and Governmental Services...
 - 6.2. Common Utility Network Elements
 - 6.2.1. Spatial object types
 - 6.2.1.1. Utility Network (UtilityNetwork)
 - Attributes of the spatial object type UtilityNetwork
 - Association roles of the spatial object type UtilityNetwork
 - Constraints of the spatial object type UtilityNetwork
 - 6.2.1.2. Utility Network Element (UtilityNetworkElement)
 - Attributes of the spatial object type UtilityNetworkElement
 - 6.2.1.3. Utility Link Set (UtilityLinkSet)
 - Attributes of the spatial object type UtilityLinkSet
 - Constraints of the spatial object type UtilityLinkSet
 - 6.2.1.4. Utility Link (UtilityLink)
 - 6.2.1.5. Utility Link Sequence (UtilityLinkSequence)
 - 6.2.1.6. Utility Node (UtilityNode)
 - Constraints of the spatial object type UtilityNode
 - 6.2.1.7. Utility Node Container (UtilityNodeContainer)
 - Attributes of the spatial object type UtilityNodeContainer
 - Association roles of the spatial object type UtilityNodeContainer
 - 6.2.1.8. Appurtenance (Appurtenance)
 - Attributes of the spatial object type Appurtenance
 - 6.2.1.9. Cabinet (Cabinet)
 - 6.2.1.10Cable (Cable)
 - 6.2.1.11Duct (Duct)
 - Attributes of the spatial object type Duct
 - Association roles of the spatial object type Duct
 - Constraints of the spatial object type Duct
 - 6.2.1.12Manhole (Manhole)

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- 6.2.1.13 Pipe (Pipe)
 - Attributes of the spatial object type Pipe
 - Association roles of the spatial object type Pipe
- 6.2.1.14 Pole (Pole)
 - Attributes of the spatial object type Pole
- 6.2.1.15 Tower (Tower)
 - Attributes of the spatial object type Tower
- 6.2.2. Code lists
 - 6.2.2.1. Appurtenance Type (AppurtenanceTypeValue)
 - 6.2.2.2. Specific Appurtenance Type (SpecificAppurtenanceTypeValue)
 - 6.2.2.3. Utility Delivery Type (UtilityDeliveryTypeValue)
 - Values for the code list UtilityDeliveryTypeValue
 - 6.2.2.4. Utility Network Type (UtilityNetworkTypeValue)
 - Values for the code list UtilityNetworkTypeValue
 - 6.2.2.5. Warning Type (WarningTypeValue)
 - Values for the code list WarningTypeValue
- 6.3. Electricity Network
 - 6.3.1. Spatial object types
 - 6.3.1.1. Electricity Cable (ElectricityCable)
 - Attributes of the spatial object type ElectricityCable
 - 6.3.2. Code lists
 - 6.3.2.1. Electricity Appurtenance Type (ElectricityAppurtenanceTypeValue)
 - Values for the code list ElectricityAppurtenanceTypeValue
- 6.4. Oil-Gas-Chemicals Network
 - 6.4.1. Spatial object types
 - 6.4.1.1. Oil, Gas and Chemicals Pipe (OilGasChemicalsPipe)
 - Attributes of the spatial object type OilGasChemicalsPipe
 - 6.4.2. Code lists
 - 6.4.2.1. Oil, Gas and Chemicals Appurtenance Type (OilGasChemicalsAppurtenanceTypeValue)
 - Values for the code list OilGasChemicalsAppurtenanceTypeValue
 - 6.4.2.2. Oil, Gas and Chemicals Product Type (OilGasChemicalsProductTypeValue)
- 6.5. Sewer Network
 - 6.5.1. Spatial object types
 - 6.5.1.1. Sewer Pipe (SewerPipe)
 - Attributes of the spatial object type SewerPipe
 - 6.5.2. Code lists
 - 6.5.2.1. Sewer Appurtenance Type (SewerAppurtenanceTypeValue)
 - Values for the code list SewerAppurtenanceTypeValue
 - 6.5.2.2. Sewer Water Type (SewerWaterTypeValue)
 - Values for the code list SewerWaterTypeValue
- 6.6. Thermal Network
 - 6.6.1. Spatial object types
 - 6.6.1.1. Thermal Pipe (ThermalPipe)
 - Attributes of the spatial object type ThermalPipe
 - 6.6.2. Code lists

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- 6.6.2.1. Thermal Appurtenance Type
(ThermalAppurtenanceTypeValue)
 - 6.6.2.2. Thermal Product Type (ThermalProductTypeValue)
 - 6.7. Water Network
 - 6.7.1. Spatial object types
 - 6.7.1.1. Water Pipe (WaterPipe)
Attributes of the spatial object type WaterPipe
 - 6.7.2. Code lists
 - 6.7.2.1. Water Appurtenance Type (WaterAppurtenanceTypeValue)
Values for the code list WaterAppurtenanceTypeValue
 - 6.7.2.2. Water Type (WaterTypeValue)
Values for the code list WaterTypeValue
 - 6.8. Environmental Management Facilities
 - 6.8.1. Spatial object types
 - 6.8.1.1. Environmental Management Facility
(EnvironmentalManagementFacility)
Attributes of the spatial object type
EnvironmentalManagementFacility
Association roles of the spatial object type
EnvironmentalManagementFacility
 - 6.8.2. Code lists
 - 6.8.2.1. Environmental Facility Classification
(EnvironmentalManagementFacilityTypeValue)
Values for the code list
EnvironmentalManagementFacilityTypeValue
 - 6.9. Administrative And Social Governmental Services
 - 6.9.1. Spatial object types
 - 6.9.1.1. Governmental Service (GovernmentalService)
Attributes of the spatial object type
GovernmentalService
 - 6.9.2. Data types
 - 6.9.2.1. Area Of Responsibility Type (AreaOfResponsibilityType)
Attributes of the data type AreaOfResponsibilityType
 - 6.9.2.2. Service Location Type (ServiceLocationType)
Attributes of the union type ServiceLocationType
 - 6.9.3. Code lists
 - 6.9.3.1. Service Type (ServiceTypeValue)
Values for the code list ServiceTypeValue
 - 6.10. Layers
Layers for the spatial data theme Utility and Governmental Services...
 - 7. ENVIRONMENTAL MONITORING FACILITIES
 - 7.1. Spatial object types
 - 7.1.1. Abstract Monitoring Feature (AbstractMonitoringFeature)
Attributes of the spatial object type
AbstractMonitoringFeature
Association roles of the spatial object type
AbstractMonitoringFeature
Constraints of the spatial object type
AbstractMonitoringFeature
 - 7.1.2. Abstract Monitoring Object (AbstractMonitoringObject)
Attributes of the spatial object type AbstractMonitoringObject

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- 8.2.1. Production Facility (ProductionFacility)
 - Attributes of the spatial object type ProductionFacility
 - Association roles of the spatial object type ProductionFacility
- 8.2.2. Production Installation (ProductionInstallation)
 - Attributes of the spatial object type ProductionInstallation
 - Association roles of the spatial object type ProductionInstallation
- 8.2.3. Production Installation Part (ProductionInstallationPart)
 - Attributes of the spatial object type ProductionInstallationPart
- 8.2.4. Production Site (ProductionSite)
 - Attributes of the spatial object type ProductionSite
- 8.2.5. Production Plot (ProductionPlot)
 - Attributes of the spatial object type ProductionPlot
- 8.2.6. Production Building (ProductionBuilding)
 - Attributes of the spatial object type ProductionBuilding
 - Association roles of the spatial object type ProductionBuilding
 - Constraints of the spatial object type Production Building
- 8.3. Data types
 - 8.3.1. Status Type (StatusType)
 - Attributes of the data type StatusType
- 8.4. Code lists
 - 8.4.1. Pollution Abatement Technique (PollutionAbatementTechniqueValue)
 - Values for the code list PollutionAbatementTechniqueValue
 - 8.4.2. Installation Type (InstallationTypeValue)
 - 8.4.3. Installation Part Type (InstallationPartTypeValue)
 - 8.4.4. River Basin District (RiverBasinDistrictValue)
 - 8.4.5. Type of Production Building (TypeOfProductionBuildingValue)
- 8.5. Layers
 - Layers for the spatial data theme Production and Industrial Facilities...
- 9. AGRICULTURAL AND AQUACULTURE FACILITIES
 - 9.1. Definitions
 - 9.2. Spatial object types
 - 9.2.1. Holding (Holding)
 - Association roles of the spatial object type Holding
 - Constraints of the spatial object type Holding
 - 9.2.1.1. Site (Site)
 - Attributes of the spatial object type Site
 - 9.3. Data types
 - 9.3.1. Farm Animal Species (FarmAnimalSpecies)
 - Attributes of the data type FarmAnimalSpecies
 - 9.4. Code lists
 - 9.4.1. Livestock Species (LivestockSpeciesValue)
 - 9.4.2. Aquaculture Species (AquacultureSpeciesValue)
 - 9.5. Layers
 - Layers for the spatial data theme Agricultural and Aquaculture Facilities...
- 10. POPULATION DISTRIBUTION – DEMOGRAPHY
 - 10.1. Spatial object types
 - 10.1.1. Statistical Distribution (StatisticalDistribution)
 - Attributes of the spatial object type StatisticalDistribution

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- (1) Spatial objects acting as reporting units shall be defined and...
 - (2) Where environmental reporting data, to establish a spatial reference, refers...
 - 11.4.3. Cross-theme requirements
 - (1) If an area has been established exclusively to manage, regulate...
 - (2) Where a zone has been established to regulate planned land...
 - 11.5. Layers
 - Layers for the spatial data theme Area Management / Restriction...
- 12. NATURAL RISK ZONES
 - 12.1. Definitions
 - 12.2. Spatial object types
 - 12.2.1. Abstract Exposed Element (AbstractExposedElement)
 - Attributes of the spatial object type AbstractExposedElement
 - Association roles of the spatial object type AbstractExposedElement
 - Constraints of the spatial object type AbstractExposedElement
 - 12.2.2. Abstract Hazard Area (AbstractHazardArea)
 - Attributes of the spatial object type AbstractHazardArea
 - Association roles of the spatial object type AbstractHazardArea
 - 12.2.3. Abstract Observed Event (AbstractObservedEvent)
 - Attributes of the spatial object type AbstractObservedEvent
 - Association roles of the spatial object type AbstractObservedEvent
 - 12.2.4. Abstract Risk Zone (AbstractRiskZone)
 - Attributes of the spatial object type AbstractRiskZone
 - Association roles of the spatial object type AbstractRiskZone
 - 12.2.5. Exposed Element Coverage (ExposedElementCoverage)
 - Attributes of the spatial object type ExposedElementCoverage
 - Constraints of the spatial object type ExposedElementCoverage
 - 12.2.6. Exposed Element (ExposedElement)
 - Attributes of the spatial object type ExposedElement
 - 12.2.7. Hazard Area (HazardArea)
 - Attributes of the spatial object type HazardArea
 - 12.2.8. Hazard Coverage (HazardCoverage)
 - Constraints of the spatial object type HazardCoverage
 - 12.2.9. Observed Event Coverage (ObservedEventCoverage)
 - Constraints of the spatial object type ObservedEventCoverage
 - 12.2.10. Observed Event (ObservedEvent)
 - Attributes of the spatial object type ObservedEvent
 - 12.2.11. Risk coverage (RiskCoverage)
 - Constraints of the spatial object type RiskCoverage
 - 12.2.12. Risk Zone (RiskZone)
 - Attributes of the spatial object type RiskZone
 - 12.3. Data types
 - 12.3.1. Exposed Element Classification (ExposedElementClassification)
 - Attributes of the data type ExposedElementClassification
 - 12.3.2. Level Or Intensity (LevelOrIntensity)
 - Attributes of the data type LevelOrIntensity
 - Constraints of the data type LevelOrIntensity

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- 12.3.3. Likelihood Of Occurrence (LikelihoodOfOccurrence)
 - Attributes of the data type LikelihoodOfOccurrence
 - Constraints of the data type LikelihoodOfOccurrence
- 12.3.4. Natural Hazard Classification (NaturalHazardClassification)
 - Attributes of the data type NaturalHazardClassification
- 12.3.5. Quantitative Likelihood (QuantitativeLikelihood)
 - Attributes of the data type QuantitativeLikelihood
- 12.3.6. Vulnerability Assessment (VulnerabilityAssessment)
 - Attributes of the data type VulnerabilityAssessment
- 12.4. Enumerations
 - 12.4.1. Determination Method (DeterminationMethodValue)
 - Values for the enumeration DeterminationMethodValue
- 12.5. Code lists
 - 12.5.1. Exposed Element Category (ExposedElementCategoryValue)
 - Values for the code list ExposedElementCategoryValue
 - 12.5.2. Natural Hazard Category (NaturalHazardCategoryValue)
 - Values for the code list NaturalHazardCategoryValue
 - 12.5.3. Specific Exposed Element Type (SpecificExposedElementTypeValue)
 - 12.5.4. Specific Hazard Type (SpecificHazardTypeValue)
- 12.6. Theme-specific Requirements
 - (1) Where a RiskZone is associated with a HazardArea, the RiskZone...
 - (2) Where a RiskZone is associated with an ExposedElement, the ExposedElement...
- 12.7. Layers
 - Layers for the spatial data theme Natural Risk Zones
- 13. ATMOSPHERIC CONDITIONS AND METEOROLOGICAL GEOGRAPHICAL FEATURES
 - 13.1. Structure of the Spatial Data Themes Atmospheric Conditions and Meteorological...
 - 13.2. Atmospheric Conditions and Meteorological Geographical Features
 - 13.2.1. Code lists
 - 13.2.1.1EU Air Quality Reference Component
(EU_AirQualityReferenceComponentValue)
 - 13.2.1.2WMO GRIB Code and Flags Table 4.2
(GRIB_CodeTable4_2Value)
 - 13.3. Theme-specific Requirements
 - (1) By way of derogation from the requirements of Section 2.2...
 - (2) Data related to the themes Atmospheric Conditions or Meteorological Geographical...
 - (3) The observed property of an OM_Observation shall be identified by...
 - 13.4. Layers
- 14. OCEANOGRAPHIC GEOGRAPHICAL FEATURES
 - 14.1. Structure of the Spatial Data Theme Oceanographic Geographical Features
 - 14.2. Oceanographic Geographical Features
 - 14.2.1. Code lists
 - 14.2.1.1BODC P01 Parameter Usage
(BODC_P01ParameterUsageValue)
 - 14.3. Theme-specific Requirements
 - (1) By way of derogation from the requirements of Section 2.2....
 - (2) Data related to the theme Oceanographic Geographical Features shall be...

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- (3) The observed property of an OM_Observation shall be identified by...
- 14.4. Layers
 - Layers for the spatial data theme Oceanographic Geographical Features
- 15. SEA REGIONS
 - 15.1. Spatial object types
 - 15.1.1. Sea Area (SeaArea)
 - Attributes of the spatial object type SeaArea
 - Association roles of the spatial object type SeaArea
 - 15.1.2. Sea (Sea)
 - Attributes of the spatial object type Sea
 - Constraints of the spatial object type Sea
 - 15.1.3. Marine Circulation Zone (MarineCirculationZone)
 - Attributes of the spatial object type MarineCirculationZone
 - 15.1.4. Intertidal Area (InterTidalArea)
 - Attributes of the spatial object type InterTidalArea
 - 15.1.5. Shoreline (Shoreline)
 - Attributes of the spatial object type Shoreline
 - 15.1.6. Shore Segment (ShoreSegment)
 - Attributes of the spatial object type ShoreSegment
 - 15.1.7. Coastline (Coastline)
 - Constraints of the spatial object type Coastline
 - 15.1.8. Marine Contour (MarineContour)
 - Attributes of the spatial object type MarineContour
 - Association roles of the spatial object type MarineContour
 - 15.1.9. Marine Layer (MarineLayer)
 - Attributes of the spatial object type MarineLayer
 - Association roles of the spatial object type MarineLayer
 - Constraints of the spatial object type MarineLayer
 - 15.1.10. Sea Bed Area (SeaBedArea)
 - Attributes of the spatial object type SeaBedArea
 - 15.1.11. Sea Surface Area (SeaSurfaceArea)
 - Attributes of the spatial object type SeaSurfaceArea
 - 15.2. Data types
 - 15.2.1. Marine Extent (MarineExtent)
 - Attributes of the data type MarineExtent
 - 15.2.2. Marine Isoline (MarineIsoline)
 - Attributes of the data type MarineIsoline
 - 15.2.3. Parameter Value Pair (ParameterValuePair)
 - Attributes of the data type ParameterValuePair
 - 15.3. Code lists
 - 15.3.1. Sea Area Type Classification (SeaAreaTypeClassificationValue)
 - 15.3.2. Sea Bed Cover (SeaBedCoverValue)
 - 15.3.3. Sea Surface Classification (SeaSurfaceClassificationValue)
 - 15.3.4. Shore Stability (ShoreStabilityValue)
 - 15.3.5. Shore Type Classification (ShoreTypeClassificationValue)
 - 15.3.6. Zone Type (ZoneTypeValue)
 - 15.4. Theme-specific Requirements
 - (1) The Sea spatial object type shall be used to describe...
 - (2) The MarineExtent of a Sea spatial object shall have a...
 - (3) The low water level used to define an IntertidalArea shall...
 - (4) The code lists defined in the spatial data theme Oceanographic...

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- (5) SeaAreas shall be represented as 2-dimensional geometries.
- 15.5. Layers
 - Layers for the spatial data theme Sea Regions
- 16. BIO-GEOGRAPHICAL REGIONS
 - 16.1. Spatial object types
 - 16.1.1. Bio-geographical Region (Bio-geographicalRegion)
 - Attributes of the spatial object type Bio-geographicalRegion
 - 16.2. Code lists
 - 16.2.1. Region Classification Level (RegionClassificationLevelValue)
 - Values for the code list RegionClassificationLevelValue
 - 16.2.2. Region Classification Scheme (RegionClassificationSchemeValue)
 - 16.2.3. Region Classification (RegionClassificationValue)
 - 16.3. Layers
 - Layer for the spatial data theme Bio-Geographical Regions
- 17. HABITATS AND BIOTOPES
 - 17.1. Definitions
 - 17.2. Spatial object types
 - 17.2.1. Habitat (Habitat)
 - Attributes of the spatial object type Habitat
 - 17.3. Data types
 - 17.3.1. Habitat Species Type (HabitatSpeciesType)
 - Attributes of the data type HabitatSpeciesType
 - 17.3.2. Habitat Type Cover Type (HabitatTypeCoverType)
 - Attributes of the data type HabitatTypeCoverType
 - 17.3.3. Habitat Vegetation Type (HabitatVegetationType)
 - Attributes of the data type HabitatVegetationType
 - 17.3.4. Local Name Type (LocalNameType)
 - Attributes of the data type LocalNameType
 - 17.4. Code lists
 - 17.4.1. Qualifier Local Name (QualifierLocalNameValue)
 - Values for the code list QualifierLocalNameValue
 - 17.4.2. Reference Habitat Type Code (ReferenceHabitatTypeCodeValue)
 - 17.4.3. Reference Habitat Type Scheme (ReferenceHabitatTypeSchemeValue)
 - Values for the code list ReferenceHabitatTypeSchemeValue
 - 17.4.4. Local Name Code (LocalNameCodeValue)
 - 17.5. Theme-specific Requirements
 - (1) It is mandatory to make available at least one habitat...
 - 17.6. Layers
 - Layer for the spatial data theme Habitats and Biotopes
- 18. SPECIES DISTRIBUTION
 - 18.1. Definitions
 - 18.2. Spatial object types
 - 18.2.1. Species Distribution Data Set (SpeciesDistributionDataSet)
 - Attributes of the spatial object type SpeciesDistributionDataSet
 - Association roles of the spatial object type SpeciesDistributionDataSet
 - 18.2.2. Species Distribution Unit (SpeciesDistributionUnit)
 - Attributes of the spatial object type SpeciesDistributionUnit

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- Association roles of the spatial object type SpeciesDistributionUnit
- Constraints of the spatial object type SpeciesDistributionUnit
- 18.3. Data types
 - 18.3.1. Distribution Info Type (DistributionInfoType)
 - Attributes of the data type DistributionInfoType
 - 18.3.2. Population Size Type (PopulationSizeType)
 - Attributes of the data type PopulationSizeType
 - 18.3.3. Range Type (RangeType)
 - Attributes of the data type RangeType
 - 18.3.4. Species Name Type (SpeciesNameType)
 - Attributes of the data type SpeciesNameType
- 18.4. Code lists
 - 18.4.1. Counting Method (CountingMethodValue)
 - Values for the code list CountingMethodValue
 - 18.4.2. Counting Unit (CountingUnitValue)
 - 18.4.3. Local Species Name Code (LocalSpeciesNameCodeValue)
 - 18.4.4. Occurrence Category (OccurrenceCategoryValue)
 - Values for the code list OccurrenceCategoryValue
 - 18.4.5. Population Type (PopulationTypeValue)
 - 18.4.6. Qualifier (QualifierValue)
 - Values for the code list QualifierValue
 - 18.4.7. Reference Species Code (ReferenceSpeciesCodeValue)
 - 18.4.8. Reference Species Scheme (ReferenceSpeciesSchemeValue)
 - Values for the code list ReferenceSpeciesSchemeValue
 - 18.4.9. Residency Status (ResidencyStatusValue)
- 18.5. Theme-specific Requirements
 - (1) Where grid representations of species distributions are needed, the Grid_ETRS89-LAEA...
 - (2) For SpeciesDistributionUnit spatial objects,
 - (3) If the geometries of the spatial objects in aSpeciesDistributionUnit data...
- 18.6. Layer
 - Layer for the spatial data theme Species Distribution
- 19. ENERGY RESOURCES
 - 19.1. Definitions
 - 19.2. Structure of the Spatial Data Theme Energy Resources
 - 19.3. Energy Resources Base
 - 19.3.1. Data types
 - 19.3.1.1. Vertical Extent Range Type (VerticalExtentRangeType)
 - Attributes of the data type VerticalExtentRangeType
 - Constraints of the data type VerticalExtentRangeType
 - 19.3.1.2. Vertical Extent Type (VerticalExtentType)
 - Attributes of the data type VerticalExtentType
 - 19.3.1.3. Vertical Extent Value (VerticalExtentValue)
 - Attributes of the union type VerticalExtentValue
 - Constraints of the union type VerticalExtentValue
 - 19.3.2. Code lists
 - 19.3.2.1. Classification and Quantification Framework (ClassificationAndQuantificationFrameworkValue)
 - 19.3.2.2. Fossil Fuel Class (FossilFuelClassValue)
 - 19.3.2.3. Renewable and Waste (RenewableAndWasteValue)

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- 20.3.1.3Commodity (Commodity)
 - Attributes of the spatial object type Commodity
 - Association roles of the spatial object type Commodity
- 20.3.1.4Exploration Activity (ExplorationActivity)
 - Attributes of the spatial object type ExplorationActivity
- 20.3.1.5Mining Feature (MiningFeature)
 - Attributes of the spatial object type MiningFeature
- 20.3.1.6Mining Feature Occurrence (MiningFeatureOccurrence)
 - Attributes of the spatial object type MiningFeatureOccurrence
 - Association roles of the spatial object type MiningFeatureOccurrence
- 20.3.1.7Mine (Mine)
 - Attributes of the spatial object type Mine
 - Association roles of the spatial object type Mine
- 20.3.1.8Mining Activity (MiningActivity)
 - Attributes of the spatial object type MiningActivity
 - Association roles of the spatial object type MiningActivity
- 20.3.2. Data types
 - 20.3.2.1Commodity Measure (CommodityMeasure)
 - Attributes of the data type CommodityMeasure
 - Association roles of the data type CommodityMeasure
 - 20.3.2.2Earth Resource Dimension (EarthResourceDimension)
 - Attributes of the data type EarthResourceDimension
 - 20.3.2.3Endowment (Endowment)
 - Attributes of the data type Endowment
 - 20.3.2.4Mine Name (MineName)
 - Attributes of the data type MineName
 - 20.3.2.5Mineral Deposit Model (MineralDepositModel)
 - Attributes of MineralDepositModel
 - 20.3.2.6Ore Measure (OreMeasure)
 - Attributes of the data type OreMeasure
 - Association roles of the data type OreMeasure
 - 20.3.2.7Reserve (Reserve)
 - Attributes of the data type Reserve
 - 20.3.2.8Resource (Resource)
 - Attributes of the data type Resource
- 20.3.3. Code lists
 - 20.3.3.1Classification Method Used (ClassificationMethodUsedValue)
 - Values for the code list ClassificationMethodUsedValue
 - 20.3.3.2Commodity Code (CommodityCodeValue)
 - 20.3.3.3Enduse Potential (EndusePotentialValue)
 - Values for the code list EndusePotentialValue
 - 20.3.3.4Exploration Activity Type (ExplorationActivityTypeValue)
 - Values for the code list ExplorationActivityTypeValue
 - 20.3.3.5Exploration Result (ExplorationResultValue)
 - Values for the code list ExplorationResultValue
 - 20.3.3.6Importance (ImportanceValue)

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- 20.3.3.7 Mine Status (MineStatusValue)
Values for the code list MineStatusValue
- 20.3.3.8 Mineral Deposit Group (MineralDepositGroupValue)
Values for the code list MineralDepositGroupValue
- 20.3.3.9 Mineral Deposit Type (MineralDepositTypeValue)
- 20.3.3.10 Mineral Occurrence Type (MineralOccurrenceTypeValue)
Values for the code list MineralOccurrenceTypeValue
- 20.3.3.11 Mining Activity Type (MiningActivityTypeValue)
Values for the code list MiningActivityTypeValue
- 20.3.3.12 Processing Activity Type (ProcessingActivityTypeValue)
Values for the code list ProcessingActivityTypeValue
- 20.3.3.13 Reserve Category (ReserveCategoryValue)
Values for the code list ReserveCategoryValue
- 20.3.3.14 Resource Category (ResourceCategoryValue)
Values for the code list ResourceCategoryValue
- 20.4. Theme-specific Requirements
- 20.5. Layers
Layers for the spatial data theme Mineral Resources

ANNEX V

IMPLEMENTING RULES FOR INVOCABLE SPATIAL DATA SERVICES

PART A

Writing Conventions

PART B

Category Metadata Element

1. Category
 - 1.1. Invocable (invocable)
 - 1.2. Interoperable (interoperable)
 - 1.3. Harmonised (harmonised)

PART C

Instructions on Multiplicity and Conditions of the Metadata Elements

PART D

Additional Requirements on Metadata Set Out in Regulation (EC) No 1205/2008

1. Resource Locator
2. Specification

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and are referenced with annotations. (See end of Document for details) View outstanding changes

ANNEX VI

IMPLEMENTING RULES FOR THE INTEROPERABILITY OF INVOCABLE SPATIAL DATA SERVICES

PART A

Additional Requirements on Metadata Set Out in Regulation (EC) No 1205/2008

1. Conditions applying to access and use
2. Responsible party

PART B

Metadata Elements

3. Coordinate Reference System Identifier
4. Quality of Service
 - 4.1. Criteria
 - 4.1.1. Availability (availability)
 - 4.1.2. Performance (performance)
 - 4.1.3. Capacity (capacity)
 - 4.2. Measurement
 - 4.2.1. Description
 - 4.2.2. Value (value)
 - 4.2.3. Unit (unit)

PART C

Instructions on Multiplicity and Conditions of the Metadata Elements

ANNEX VII

IMPLEMENTING RULES FOR THE HARMONISATION OF INTEROPERABLE SPATIAL DATA SERVICES

PART A

Characteristics

1. Quality of Service
2. Output encoding

PART B

Metadata Elements

3. invocation metadata

PART C

Instructions on Multiplicity and Conditions of the Metadata Elements

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and are referenced with annotations. (See end of Document for details) [View outstanding changes](#)

PART D

Operations

1. List of operations
2. Get Harmonised Spatial Data Service Metadata Operation
 - 2.1. Get Harmonised Spatial Data Service Metadata Request
 - 2.1.1. Get Harmonised Spatial Data Service Metadata Request parameters
 - 2.2. Get Harmonised Spatial Data Service Metadata Response
 - 2.2.1. Harmonised Spatial Data Service Metadata parameters
 - 2.2.2. Operations Metadata parameters
 - 2.2.3. Languages parameter

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(1) [OJ L 108, 25.4.2007, p. 1.](#)

Changes to legislation:

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Changes and effects yet to be applied to :

- Art. 1 words substituted by [S.I. 2018/1338 reg. 13\(2\)](#)
- Art. 3 words substituted by [S.I. 2018/1338 reg. 13\(4\)](#)
- Art. 4 words substituted by [S.I. 2018/1338 reg. 13\(5\)](#)
- Art. 8 words substituted by [S.I. 2018/1338 reg. 13\(6\)](#)
- Art. 11 words substituted by [S.I. 2018/1338 reg. 13\(7\)](#)
- Art. 14a omitted by [S.I. 2018/1338 reg. 13\(8\)](#)
- Art. 15 omitted by [S.I. 2018/1338 reg. 13\(9\)](#)

Changes and effects yet to be applied to the whole legislation item and associated provisions

- Annex 1 para. 8.1.3.1 words inserted by [S.I. 2018/1338 reg. 13\(10\)\(c\)\(ii\)](#)
- Annex 1 para. 8.1.3.1 words inserted by [S.I. 2018/1338 reg. 13\(10\)\(c\)\(iii\)](#)
- Annex 1 para. 7.3.3.1 words omitted by [S.I. 2018/1338 reg. 13\(10\)\(a\)](#)
- Annex 1 para. 8.1.3.2 words omitted by [S.I. 2018/1338 reg. 13\(10\)\(d\)\(i\)](#)
- Annex 1 para. 8.1.3.2 words omitted by [S.I. 2018/1338 reg. 13\(10\)\(d\)\(ii\)](#)
- Annex 1 para. 8.1.1.1 words substituted by [S.I. 2018/1338 reg. 13\(10\)\(b\)](#)
- Annex 1 para. 8.1.3.1 words substituted by [S.I. 2018/1338 reg. 13\(10\)\(c\)\(i\)](#)
- Annex 2 para. 1.3.4(2) omitted by [S.I. 2018/1338 reg. 13\(11\)\(b\)](#)
- Annex 2 para. 2.2(2) omitted by [S.I. 2018/1338 reg. 13\(11\)\(c\)](#)
- Annex 2 para. 3.1.1 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(d\)](#)
- Annex 2 para. 6.1.4 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(k\)](#)
- Annex 2 para. 7.6.1.6 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(l\)](#)
- Annex 2 para. 7.9.1 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(n\)](#)
- Annex 2 para. 8.7.1 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(o\)\(i\)](#)
- Annex 2 para. 9.4.1 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(s\)\(ii\)](#)
- Annex 2 para. 9.4.5 words omitted by [S.I. 2018/1338 reg. 13\(11\)\(t\)](#)
- Annex 2 heading words substituted by [S.I. 2018/1338 reg. 13\(11\)\(a\)](#)
- Annex 2 para. 3.3.4 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(e\)\(i\)](#)
- Annex 2 para. 3.3.4 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(e\)\(ii\)](#)
- Annex 2 para. 4.2.1.2 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(f\)](#)
- Annex 2 para. 4.4(1) words substituted by [S.I. 2018/1338 reg. 13\(11\)\(g\)](#)
- Annex 2 para. 5.2.4 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(h\)](#)
- Annex 2 para. 5.3.2 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(i\)](#)
- Annex 2 para. 6.1 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(j\)](#)
- Annex 2 para. 7.7.1.15 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(m\)](#)
- Annex 2 para. 8.7.1 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(o\)\(ii\)](#)
- Annex 2 para. 8.7.2 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(p\)](#)
- Annex 2 para. 8.7.4 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(q\)](#)
- Annex 2 para. 9.1.1 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(r\)](#)
- Annex 2 para. 9.4.1 words substituted by [S.I. 2018/1338 reg. 13\(11\)\(s\)\(i\)](#)
- Art. 2(2) words substituted by [S.I. 2018/1338 reg. 13\(3\)\(a\)](#)
- Art. 2(3) words substituted by [S.I. 2018/1338 reg. 13\(3\)\(b\)](#)
- Art. 2(20) words substituted by [S.I. 2018/1338 reg. 13\(3\)\(c\)](#)
- Art. 2(39)(40) inserted by [S.I. 2018/1338 reg. 13\(3\)\(d\)](#)
- Annex 3 heading words substituted by [S.I. 2018/1338 reg. 13\(12\)\(a\)](#)
- Annex 3 para. 1.7.5 point (3) words substituted by [S.I. 2018/1338 reg. 13\(12\)\(b\)](#)
- Annex 4 para. 1.5 point (2) omitted by [S.I. 2018/1338 reg. 13\(13\)\(b\)](#)
- Annex 4 para. 16.2.3 word inserted by [S.I. 2018/1338 reg. 13\(13\)\(p\)\(i\)](#)

- Annex 4 para. 18.4.8 word omitted by S.I. 2018/1338 reg. 13(13)(u)(ii)
- Annex 4 para. 4.7.1.1 word substituted by S.I. 2018/1338 reg. 13(13)(c)(i)
- Annex 4 para. 4.7.1.1 word substituted by S.I. 2018/1338 reg. 13(13)(c)(ii)
- Annex 4 para. 4.7.1.3.1 word substituted by S.I. 2018/1338 reg. 13(13)(e)(iii)
- Annex 4 para. 18.4.8 word substituted by S.I. 2018/1338 reg. 13(13)(u)(i)
- Annex 4 para. 5.1.5 words inserted by S.I. 2018/1338 reg. 13(13)(h)
- Annex 4 para. 10.3.2 words inserted by S.I. 2018/1338 reg. 13(13)(k)
- Annex 4 para. 11.3.1 words inserted by S.I. 2018/1338 reg. 13(13)(l)(iii)(bb)
- Annex 4 para. 11.3.1 words inserted by S.I. 2018/1338 reg. 13(13)(l)(vii)(aa)
- Annex 4 para. 17.4.2 words inserted by S.I. 2018/1338 reg. 13(13)(q)(i)(aa)
- Annex 4 para. 17.4.2 words inserted by S.I. 2018/1338 reg. 13(13)(q)(i)(bb)
- Annex 4 para. 17.4.2 words inserted by S.I. 2018/1338 reg. 13(13)(q)(ii)
- Annex 4 para. 17.4.3 words inserted by S.I. 2018/1338 reg. 13(13)(r)(ii)(bb)
- Annex 4 para. 18.4.2 words inserted by S.I. 2018/1338 reg. 13(13)(s)(ii)
- Annex 4 para. 4.7.1.2 words omitted by S.I. 2018/1338 reg. 13(13)(d)(i)
- Annex 4 para. 4.7.1.2 words omitted by S.I. 2018/1338 reg. 13(13)(d)(ii)
- Annex 4 para. 4.7.3.4 words omitted by S.I. 2018/1338 reg. 13(13)(f)
- Annex 4 para. 11.3.1 words omitted by S.I. 2018/1338 reg. 13(13)(l)(iv)
- Annex 4 para. 11.3.1 words omitted by S.I. 2018/1338 reg. 13(13)(l)(v)
- Annex 4 para. 11.3.1 words omitted by S.I. 2018/1338 reg. 13(13)(l)(vi)
- Annex 4 para. 11.3.1 words omitted by S.I. 2018/1338 reg. 13(13)(l)(vii)(bb)
- Annex 4 para. 11.4.1 point (3)(b) words omitted by S.I. 2018/1338 reg. 13(13)(m)
- Annex 4 para. 13.2.1.1 words omitted by S.I. 2018/1338 reg. 13(13)(n)
- Annex 4 para. 13.3 point (3) words omitted by S.I. 2018/1338 reg. 13(13)(o)
- Annex 4 para. 16.2.3 words omitted by S.I. 2018/1338 reg. 13(13)(p)(ii)
- Annex 4 para. 17.4.3 words omitted by S.I. 2018/1338 reg. 13(13)(r)(i)
- Annex 4 para. 18.4.7 words omitted by S.I. 2018/1338 reg. 13(13)(t)
- Annex 4 para. 19.1 words omitted by S.I. 2018/1338 reg. 13(13)(v)
- Annex 4 para. 11.3.1 words omitted by S.I. 2018/1338 reg. 13(13)(l)(ix)
- Annex 4 heading words substituted by S.I. 2018/1338 reg. 13(13)(a)
- Annex 4 para. 4.7.1.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(e)(i)
- Annex 4 para. 4.7.1.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(e)(ii)
- Annex 4 para. 4.8 point (4) words substituted by S.I. 2018/1338 reg. 13(13)(g)(i)
- Annex 4 para. 4.8 point (5) words substituted by S.I. 2018/1338 reg. 13(13)(g)(ii)
- Annex 4 para. 6.9.1.1 words substituted by S.I. 2018/1338 reg. 13(13)(i)
- Annex 4 para. 9.1 point (1) words substituted by S.I. 2018/1338 reg. 13(13)(j)(i)
- Annex 4 para. 9.1 point (2) words substituted by S.I. 2018/1338 reg. 13(13)(j)(ii)
- Annex 4 para. 11.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(l)(i)
- Annex 4 para. 11.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(l)(ii)
- Annex 4 para. 11.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(l)(iii)(aa)
- Annex 4 para. 11.3.1 words substituted by S.I. 2018/1338 reg. 13(13)(l)(viii)
- Annex 4 para. 17.4.3 words substituted by S.I. 2018/1338 reg. 13(13)(r)(ii)(aa)
- Annex 4 para. 18.4.2 words substituted by S.I. 2018/1338 reg. 13(13)(s)(i)
- Annex 4 para. 18.4.8 words substituted by S.I. 2018/1338 reg. 13(13)(u)(iii)
- Annex 7 para. 2 words substituted by S.I. 2018/1338 reg. 13(14)