EUROPEAN
COMMISSION

Brussels, XXX
[…](2021) XXX draft

ANNEXES 1 to 4

ANNEXES

to the

Commission Regulation

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

ANNEX I

Annex I to Regulation (EU) No 1089/2010 is amended as follows:

(1) Section 1 is replaced by the following:

‘1. TYPES DEFINED IN EUROPEAN AND INTERNATIONAL STANDARDS

The following common types, used in attributes or association roles of spatial object types or data types, are defined as follows:

(1) For the types Any, Angle, Area, Boolean, CharacterString, Date, DateTime, Decimal, Distance, Integer, Length, Measure, Number, Probability, Real, RecordType, Sign, UnitOfMeasure, Velocity and Volume, the definitions given in ISO/TS 19103:2005 shall apply.

(2) For the types DirectPosition, GM_Boundary, GM_Curve, GM_MultiCurve, GM_MultiSurface, GM_Object, GM_Point, GM_Position, GM_Primitive, GM_Solid, GM_Surface and GM_Tin, the definitions given in EN ISO 19107:2005 shall apply.

(3) For the types TM_Duration, TM_GeometricPrimitive, TM_Instant, TM_Object, TM_Period and TM_Position, the definitions given in EN ISO 19108:2005/AC:2008 shall apply.

(4) For the type GF_PropertyType, the definitions given in EN ISO 19109:2006 shall apply.

(5) For the types CI_Citation, CI_Date, CI_RoleCode, EX_Extent, EX_VerticalExtent, MD_Distributor, MD_Resolution and URL, the definitions given in EN ISO 19115:2005/AC:2008 shall apply.

(6) For the type CV_SequenceRule, the definitions given in EN ISO 19123:2007 shall apply.

(7) For the type AbstractFeature, the definitions given in EN ISO 19136:2009 shall apply.

(8) For the types LocalisedCharacterString, PT_FreeText and URI, the definitions given in CEN ISO/TS 19139:2009 shall apply.

(9) For the type LC_LandCoverClassificationSystem, the definitions given in ISO 19144-2:2012 shall apply.

(10) For the types GFI_Feature, Location, NamedValue, OM_Observation, OM_Process, SamplingCoverageObservation, SF_SamplingCurve, SF_SamplingPoint, SF_SamplingSolid, SF_SamplingSurface and SF_SpatialSamplingFeature, the definitions given in ISO 19156:2011 shall apply.

(11) For the types Category, Quantity, QuantityRange and Time, the definitions given in Robin, Alexandre (ed.), *OGC®SWE Common Data Model Encoding Standard, version 2.0.0*, Open Geospatial Consortium, 2011 shall apply.

(12) For the types TimeValuePair and Timeseries, the definitions given in Taylor, Peter (ed.), *OGC® WaterML 2.0: Part 1 – Timeseries, v2.0.0*, Open Geospatial Consortium, 2012 shall apply.

(13) For the types CGI_LinearOrientation and CGI_PlanarOrientation, the definitions given in CGI Interoperability Working Group, *Geoscience Markup Language (GeoSciML), version 3.0.0*, Commission for the Management and

Application of Geoscience Information (CGI) of the International Union of Geological Sciences, 2011 shall apply.';

(2) Section 3 is deleted;

(3) Section 4 is replaced by the following:

'4. COMMON CODE LISTS

4.1. Vertical Position (VerticalPositionValue)

The relative vertical position of a spatial object.

4.2. Condition of Facility (ConditionOfFacilityValue)

The status of a facility with regards to its completion and use.

4.3. Country Code (CountryCode)

Country code as defined in the Interinstitutional Style Guide published by the Publications Office of the European Union.

4.4. Legislation Level (LegislationLevelValue)

The level at which a legal act or convention has been adopted.

4.5. Party Role (PartyRoleValue)

Roles of parties related to or responsible for a resource.

The values for this code list comprise the values of the following code lists or other code lists specified by data providers:

– Role Code (CI_RoleCode): Functions performed by a responsible party.

– Role of a Related Party (RelatedPartyRoleValue): Classification of related party roles.

4.6. Climate and Forecast Standard Names (CFStandardNamesValue)

Definitions of phenomena observed in meteorology and oceanography.

4.7. Gender (GenderValue)

Gender of a person or group of persons.';

(4) Section 5.3 is replaced by the following:

'5.3. Code Lists

5.3.1. Connection Type (ConnectionTypeValue)

Types of connections between different networks.

5.3.2. Link Direction (LinkDirectionValue)

List of values for directions relative to a link.';

(5) Section 7.2.3 is replaced by the following:

'7.2.3. Code Lists

7.2.3.1. Process Parameter Name (ProcessParameterNameValue)

A code list of names of process parameters.';

(6) in Section 7.3, the following Sections 7.3.1.8, 7.3.1.9, 7.3.1.10 are added:

'7.3.1.8. Abstract Observable Property (AbstractObservableProperty)

An abstract class that represents an observable property (or phenomenon).

This type is abstract.

Attributes of the data type AbstractObservableProperty

Attribute	Definition	Type	Voidability
label	A human readable title for the observable property.	CharacterString	

7.3.1.9. Composite Observable Property (CompositeObservableProperty)

A composite of multiple Observable Properties.

This type is a sub-type of AbstractObservableProperty.

Attributes of the data type CompositeObservableProperty

Attribute	Definition	Type	Voidability
count	Number of components in this composite.	Integer	

Association roles of the data type CompositeObservableProperty

Association role	Definition	Type	Voidability
component	Observable properties which together compose the same observable property, for example U,V winds.	AbstractObservableProperty	

7.3.1.10. Observable Property (ObservableProperty)

Represents a single observable property e.g. 'temperature'.

This type is a sub-type of AbstractObservableProperty.

Attributes of the data type ObservableProperty

Attribute	Definition	Type	Voidability
basePhenomenon	The phenomenon that the Observable Property description builds upon	PhenomenonTypeValue	
uom	The unit of measure	UnitOfMeasure	

Association roles of the data type ObservableProperty

Association role	Definition	Type	Voidability
restriction	A constraint applied to the Observable Property.	Constraint	

statisticalMeasure	Statistical measure applied to the Observable Property, e.g. 'daily mean temperature'.	StatisticalMeasure	

’.

(7) Section 7.3.2 is deleted;

(8) Section 7.3.3 is replaced by the following:

‘7.3.3. *Code Lists*

7.3.3.1 Phenomenon Type (PhenomenonTypeValue)

A code list of phenomena (e.g. temperature, wind speed).

This code list comprises the values of the following code lists or other code lists defined by data providers:

– Climate and Forecast Standard Names (CFStandardNamesValue): Definitions of phenomena observed in meteorology and oceanography, as specified in Section 4.5 of this Annex.

– Profile Element Parameter Name (ProfileElementParameterNameValue): Properties that can be observed to characterise the profile element, as specified in Section 3.3.8 of Annex IV.

– Soil Derived Object Parameter Name (SoilDerivedObjectParameterNameValue): Soil-related properties that can be derived from soil and other data, as specified in Section 3.3.9 of Annex IV.

– Soil Profile Parameter Name (SoilProfileParameterNameValue): Properties that can be observed to characterise the soil profile, as specified in Section 3.3.12 of Annex IV.

– Soil Site Parameter Name (SoilSiteParameterNameValue): Properties that can be observed to characterise the soil site, as specified in Section 3.3.13 of Annex IV.

– EU Air Quality Reference Component (EU_AirQualityReferenceComponentValue): Definitions of phenomena regarding air quality in the context of reporting under Union legislation, as specified in Section 13.2.1.1 of Annex IV.

– WMO GRIB Code and Flags Table 4.2 (GRIB_CodeTable4_2Value): Definitions of phenomena observed in meteorology, as specified in Section 13.2.1.2 of Annex IV.

– BODC P01 Parameter Usage (BODC_P01ParameterUsageValue): Definitions of phenomena observed in oceanography, as specified in Section 14.2.1.1 of Annex IV.

7.3.3.2. Statistical Function Type (StatisticalFunctionTypeValue)

A code list of statistical functions (e.g. maximum, minimum, mean).

7.3.3.3 Comparison Operator (ComparisonOperatorValue)

A code list of comparison operators (e.g. greater than, less than, equal to).’;

ANNEX II

Annex II to Regulation (EU) No 1089/2010 is amended as follows:

(1) Section 1.3.4 is replaced by the following:

‘1.3.4. Other Coordinate Reference Systems

Exceptions, where other coordinate reference systems than those listed in 1.3.1, 1.3.2 or 1.3.3 may be used, are:

1. Other coordinate reference systems may be specified for specific spatial data themes in these Annexes.

2. For regions outside of continental Europe, Member States may define suitable coordinate reference systems.

The geodetic codes and parameters needed to describe these other coordinate reference systems and to allow conversion and transformation operations shall be documented and an identifier shall be created in a coordinate systems register established and operated by the Commission, according to EN ISO 19111 and ISO 19127.

The Commission shall be assisted by the INSPIRE Commission expert group in the maintenance and update of the coordinate systems register.’;

(2) Section 3.3 is replaced by the following:

‘*3.3 Code Lists*

3.3.1. *Grammatical Gender (GrammaticalGenderValue)*

The grammatical gender of a geographical name.

3.3.2. *Grammatical Number (GrammaticalNumberValue)*

The grammatical number of a geographical name.

3.3.3. *Name Status (NameStatusValue)*

The status of a geographical name, that is the information enabling to discern which credit should be given to the name with respect to its standardisation and/or its topicality.

3.3.4. *Named Place Type (NamedPlaceTypeValue)*

The type of a named place.

3.3.5. *Nativeness (NativenessValue)*

The nativeness of a geographical name.’;

(3) Section 4.2.3 is deleted;

(4) Section 4.2.4 is replaced by the following:

‘4.2.4. Code Lists

4.2.4.1 Administrative Hierarchy Level (AdministrativeHierarchyLevel)

Levels of administration in the national administrative hierarchy. This code list reflects the level in the hierarchical pyramid of the administrative structures, which is based on geometric aggregation of territories and does not necessarily describe the subordination between the related administrative authorities.

4.2.4.2. Legal Status (LegalStatusValue)

Description of the legal status of administrative boundaries.

4.2.4.3. Technical Status (TechnicalStatusValue)

Description of the technical status of administrative boundaries.';

(5) Section 4.3.3 is replaced by the following:

'4.3.3. Code Lists

4.3.3.1. Baseline Segment Type (BaselineSegmentTypeValue)

The types of baselines used to measure the breadth of the territorial sea.

4.3.3.2. Maritime Zone Type (MaritimeZoneTypeValue)

Type of maritime zone.' ;

(6) in Section 5.2.1, the second table is replaced by the following:

'

Association role	Definition	Type	Voidability
building	Building that the address is assigned to or associated with.	Building of the Buildings Base package	voidable
component	Represents that the address component is engaged as a part of the address.	AddressComponent	
parcel	Cadastral parcel that this address is assigned to or associated with.	CadastralParcel	voidable
parentAddress	Main (parent) address with which this (sub) address is tightly connected	Address	voidable

';

(7) Section 5.4 is replaced by the following:

'5.4. Code Lists

5.4.1. Geometry Method (GeometryMethodValue)

Description of how and by whom this geographic position of the address was created or derived.

5.4.2. *Geometry Specification (GeometrySpecificationValue)*

Information defining the specification used to create or derive this geographic position of the address.

5.4.3. *Locator Designator Type (LocatorDesignatorTypeValue)*

Description of the semantics of the locator designator.

5.4.4. *Locator Level (LocatorLevelValue)*

The level to which the locator refers.

5.4.5. *Locator Name Type (LocatorNameTypeValue)*

Description of the semantics of the locator name.

5.4.6. *Part Type (PartTypeValue)*

A classification of the part of name according to its semantics in the complete thoroughfare name.

5.4.7. *Status (StatusValue)*

Current validity of the real world address or address component.';

(8) Section 6.2 is replaced by the following:

'6.2. *Code Lists*

6.2.1. *Cadastral Zoning Level (CadastralZoningLevelValue)*

Levels of hierarchy of the cadastral zonings.';

(9) Section 7.3.2 is deleted;

(10) Section 7.3.3 is replaced by the following:

'7.3.3. Code Lists

7.3.3.1. Access Restriction (AccessRestrictionValue)

Types of access restrictions for a transport element.

7.3.3.2. Restriction Type (RestrictionTypeValue)

Possible restrictions on vehicles that can access a transport element.

7.3.3.3. Transport Type (TransportTypeValue)

Possible types of transport networks.';

(11) in Section 7.4.1.3, the second table is replaced by the following: '

Association role	Definition	Type	Voidability
controlTowers	The set of control towers belonging to an aerodrome (airport/heliport).	Building of the Buildings Base package	voidable

';

(12) Section 7.4.2 is replaced by the following:

'7.4.2. Code Lists

7.4.2.1. Aerodrome Category (AerodromeCategoryValue)

Aerodrome possible categories concerning the scope and importance of the air traffic services offered from and to it.

7.4.2.2. Aerodrome Type (AerodromeTypeValue)

A code specifying whether a particular entity occurrence is an Aerodrome or a Heliport.

7.4.2.3. Air Route Link Class (AirRouteLinkClassValue)

The type of the route from the navigation point of view.

7.4.2.4. Air Route Type (AirRouteTypeValue)

The route classification as ATS route or North Atlantic Tracks.

7.4.2.5. Air Use Restriction (AirUseRestrictionValue)

The use restrictions for an air network object.

7.4.2.6. Airspace Area Type (AirspaceAreaTypeValue)

Recognised types of Airspace.

7.4.2.7. Navaid Type (NavaidTypeValue)

Types of Navaid Services.

7.4.2.8. Point Role (PointRoleValue)

Role of the Runway Centreline Point.

7.4.2.9. Runway Type (RunwayTypeValue)

A code that makes a distinction between runways for airplanes and FATO for helicopters.

7.4.2.10. Surface Composition (SurfaceCompositionValue)

A code indicating the composition of a surface.';

(13) Section 7.5.2 is replaced by the following:

'7.5.2. Code Lists

7.5.2.1. Cableway Type (CablewayTypeValue)

The possible types of cableway transport.';

(14) in Section 7.6.1.7, the table *Attributes of the spatial object type RailwayLink* is deleted;

(15) Section 7.6.2 is deleted;

(16) Section 7.6.3 is replaced by the following:

'7.6.3. Code Lists

7.6.3.1. Form Of Railway Node (FormOfRailwayNodeValue)

The possible functions of a railway node within the railway network.

7.6.3.2. Railway Type (RailwayTypeValue)

The possible types of railway transport.

7.6.3.3. Railway Use (RailwayUseValue)

The possible uses of railways.

7.6.3.4. Minimum Or Maximum Track Number (MinMaxTrackValue)

Values to indicate whether number of tracks are counted as the maximum, minimum or average number.

7.6.3.5. Track Gauge Category (TrackGaugeCategoryValue)

The possible categories of railways concerning its nominal track gauge.';

(17) Section 7.7.2 is deleted;

(18) Section 7.7.3 is replaced by the following:

'7.7.3. Code Lists

7.7.3.1. Area Condition (AreaConditionValue)

Speed limit restriction depending on the area.

7.7.3.2. Form Of Road Node (FormOfRoadNodeValue)

Functions of road nodes.

7.7.3.3. Form Of Way (FormOfWayValue)

Classification based on the physical properties of the road link.

7.7.3.4. Road Part (RoadPartValue)

Indication to which part of a road the value of a measurement applies.

7.7.3.5. Road Service Type (RoadServiceTypeValue)

Types of road service areas.

7.7.3.6. Road Surface Category (RoadSurfaceCategoryValue)

Values to indicate whether a road is paved or not paved.

7.7.3.7. Service Facility (ServiceFacilityValue)

Possible service facilities available at a road service area.

7.7.3.8. Speed Limit Source (SpeedLimitSourceValue)

Possible sources for speed limits.

7.7.3.9. Vehicle Type (VehicleTypeValue)

Possible types of vehicles.

7.7.3.10. Weather Condition (WeatherConditionValue)

Values to indicate weather conditions that affect speed limits.

7.7.3.11 Functional Road Class (FunctionalRoadClassValue)

Values for the functional road classification. This classification is based on the importance of the role that the road performs in the road network.

7.7.3.12. Minimum Or Maximum Lane Number (MinMaxLaneValue)

Values to indicate whether number of lanes are counted as the maximum, minimum or average number.

7.7.3.13. Nature Of Speed Limit (SpeedLimitMinMaxValue)

Possible values to indicate the nature of a speed limit.';

(19) in Section 7.8.1.13, in the second subparagraph, the sentence ‘This type is abstract.’ is deleted;

(20) Section 7.8.2 is deleted;

(21) Section 7.8.3 is replaced by the following:

‘7.8.3. Code Lists

7.8.3.1. Ferry Use (FerryUseValue)

Types of transport carried out by a ferry.

7.8.3.2. Form Of Waterway Node (FormOfWaterwayNodeValue)

Function of a Waterway Node in the water transport network.

7.8.3.3. CEMT Class (CEMTClassValue)

Inland waterway classification according to CEMT (European Conference of Ministers of Transport) Resolution No 92/2.’;

(22) in Section 8.3.1.1, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
geographicalName	A geographical name that is used to identify a hydrographic object in the real world. It provides a ‘key’ for implicitly associating different representations of the object.	GeographicalName	voidable
hydroId	An identifier that is used to identify a hydrographic object in the real world. It provides a ‘key’ for implicitly associating different representations of the object.	HydroIdentifier	voidable

’;

(23) Section 8.4.2. is replaced by the following:

‘8.4.2. Code Lists

8.4.2.1. Hydro Node Category (HydroNodeCategoryValue)

Defines categories for different types of hydrographic network nodes.’;

(24) in Section 8.5.1.3, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
area	Size of the drainage basin area.	Area	voidable
basinOrder	Number (or code) expressing the degree of	HydroOrderCode	voidable

	branching/dividing in a drainage basin system.		
beginLifespanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
endLifespanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable
geometry	The geometry of the drainage basin, as a surface.	GM_Object	
inspireId	External object identifier of the spatial object.	Identifier	
origin	Origin of the drainage basin.	OriginValue	voidable

’;

(25) in Section 8.5.1.3,the final sentence is replaced by the following:

‘*Constraints of the spatial object type DrainageBasin*

A river basin may not be contained in any other basin.

The geometry attribute has to be of type GM_Surface or GM_MultiSurface.’;

(26) Section 8.5.3 is deleted;

(27) Section 8.5.4 is replaced by the following:

‘8.5.4. Code Lists

8.5.4.1. Crossing Type (CrossingTypeValue)

Man-made physical watercourse crossing types.

8.5.4.2. Hydrological Persistence (HydrologicalPersistenceValue)

Categories of hydrological persistence of a body of water.

8.5.4.4. Shore Type (ShoreTypeValue)

Categories of shore area composition.

8.5.4.5. Water Level (WaterLevelValue)

The tidal datum / waterlevel to which depths and heights are referenced.

8.5.4.6. Origin (OriginValue)

A code list type specifying a set of hydrographic ‘origin’ categories (natural, man-made) for various hydrographic objects.’;

(28) in Section 9.1.1, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
geometry	The geometry defining the boundary of the Protected Site.	GM_Object	
inspireId	External object identifier of the spatial object.	Identifier	
siteDesignation	The designation (type) of Protected Site.	DesignationType	voidable
siteName	The name of the Protected Site.	GeographicalName	voidable
siteProtectionClassification	The classification of the protected site based on the purpose for protection.	ProtectionClassificationValue	voidable
thematicId	Thematic object identifier.	ThematicIdentifier	voidable

’;

(29) in Section 9.2.1, the table is replaced by the following: ‘

designation	The actual Site designation.	DesignationValue	
designationScheme	The scheme from which the designation code comes.	DesignationSchemeValue	
percentageUnderDesignation	The percentage of the site that falls under the designation. This is used in particular for the IUCN categorisation.	Decimal	

legalFoundationDate	The date that the protected site was legally created. This is the date that the real world object was created, not the date that its representation in an information system was created.	Date	voidable
legalFoundationDocument	A URL or text citation referencing the legal act that created the Protected Site.	CI_Citation	voidable

’.

(30) Section 9.3 is deleted;

(31) Section 9.4 is replaced by the following:

‘9.4. Code Lists

9.4.1. *Designation Scheme (DesignationSchemeValue)*

The scheme used to assign a designation to the Protected Sites.

This code list may be extended by the Member States.

9.4.2. Designation (DesignationValue)

Classification and designation types under different schemes.

This code list comprises the values of the code lists specified in Sections 9.4.3-9.4.8 or other code lists defined by data providers.

9.4.3. *IUCN Designation (IUCNDesignationValue)*

A code list for the International Union for the Conservation of Nature classification scheme.

9.4.4. *National Monuments Record Designation (NationalMonumentsRecordDesignationValue)*

A code list for the National Monuments Record classification scheme.

9.4.5. *Natura2000 Designation (Natura2000DesignationValue)*

A code list for the Natura2000 designation scheme, in accordance with Council Directive 92/43/EEC[*] (Habitats Directive).

9.4.6. *Ramsar Designation (RamsarDesignationValue)*

A code list for the Convention on Wetlands of International Importance (Ramsar Convention) designation scheme.

9.4.7. *UNESCO Man And Biosphere Programme Designation (UNESCOManAndBiosphereProgrammeDesignationValue)*

A code list for the Man and Biosphere Programme classification scheme.

9.4.8. *UNESCO World Heritage Designation (UNESCOWorldHeritageDesignationValue)*

A code list for the World Heritage designation scheme.

9.4.9. Protection Classification (ProtectionClassificationValue)

The protected site classification based on the purpose of protection.';

[*] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992, p. 7).

ANNEX III

Annex III to Regulation (EU) No 1089/2010 is amended as follows:

(1) Section 1.3.1 is replaced by the following:

‘1.3.1. Code Lists

1.3.1.1. Elevation Property Type (ElevationPropertyTypeValue)

Code list type which determines the elevation property which has been measured or calculated.

1.3.1.2. Surface Type (SurfaceTypeValue)

Enumeration Code list type which determines the elevation surface with regard to its relative adherence to the Earth's bare surface.’;

(2) Section 1.5.3 is deleted;

(3) Section 1.5.4 is replaced by the following:

‘1.5.4. Code Lists

(4) 1.5.4.1. Breakline Type (BreakLineTypeValue)

List of possible type values for break lines based on the physical characteristics of the break line [in the elevation surface].

1.5.4.2. Spot Elevation Classification (SpotElevationClassValue)

Possible classification values for spot elevations based on the LAS specification maintained by the American Society for Photogrammetry and Remote Sensing (ASPRS).

1.5.4.3. Spot Elevation Type (SpotElevationTypeValue)

Possible values for spot elevation points that describe a singularity of the surface.

1.5.4.4. Contour Line Type (ContourLineTypeValue)

List of possible categories of contour lines based on the equidistance parameter of the data set.’;

(5) Section 2.3.2 is replaced by the following:

‘2.3.2. Code Lists

2.3.2.1. Land Cover Class (LandCoverClassValue)

Land cover code list or classification.’;

(6) in Section 2.4.1.2, the following table is added: ‘

Association roles of the spatial object type LandCoverUnit

Association role	Definition	Type	Voidability
dataset	Land Cover data set to which this Land Cover object belongs.	LandCoverDataset	

’;

(7) in Section 2.6, first sentence, the words ‘an online Description attribute’ are replaced by the words ‘an external Description attribute’.

(8) Section 3.4 is replaced by the following:

‘3.4. Code Lists

3.4.1. Interpolation Method (InterpolationMethodValue)

List of codes that identify the interpolation methods which may be used for evaluating orthoimage coverages.’;

(9) Section 4.2.3 is replaced by the following:

‘4.2.3. Code Lists

4.2.3.1. Anthropogenic Geomorphologic Feature Type (AnthropogenicGeomorphologicFeatureTypeValue)

Types of anthropogenic geomorphologic features.

4.2.3.2. Borehole Purpose (BoreholePurposeValue)

Purposes for which a borehole was drilled.

4.2.3.3. Collection Type (CollectionTypeValue)

Types of collections of geological and geophysical objects.

4.2.3.4. Composition Part Role (CompositionPartRoleValue)

Roles that a compositional part plays in a geologic unit.

4.2.3.5. Event Environment (EventEnvironmentValue)

Terms for the geologic environments within which geologic events take place.

4.2.3.6. Event Process (EventProcessValue)

Terms specifying the process or processes that occurred during an event.

4.2.3.7. Fault Type (FaultTypeValue)

Terms describing the type of shear displacement structure.

4.2.3.8. Fold Profile Type (FoldProfileTypeValue)

Terms specifying the type of fold.

4.2.3.9. Geochronologic Era (GeochronologicEraValue)

Terms specifying recognised geological time units.

4.2.3.10. Geologic Unit Type (GeologicUnitTypeValue)

Terms describing the type of geologic unit.

4.2.3.11. Geomorphologic Activity (GeomorphologicActivityValue)

Terms indicating the level of activity of a geomorphologic feature.

4.2.3.12. Lithology (LithologyValue)

Terms describing the lithology.

4.2.3.13. Mapping Frame (MappingFrameValue)

Terms indicating the surface on which the MappedFeature is projected.

4.2.3.14. Natural Geomorphologic Feature Type (NaturalGeomorphologicFeatureTypeValue)

Terms describing the type of natural geomorphologic feature.

4.2.3.15. Thematic Class (ThematicClassValue)

Values for thematic classification of geologic features.

4.2.3.16. Thematic Classification (ThematicClassificationValue)

List of thematic classifications for geologic features.';

(10) Section 4.3.2 is replaced by the following:

'4.3.2. Code Lists

4.3.2.1. Campaign Type (CampaignTypeValue)

A type of geophysical campaign.

4.3.2.2. Network Name (NetworkNameValue)

A name of geophysical network.

4.3.2.3. Platform Type (PlatformTypeValue)

A platform on which data acquisition was carried out.

4.3.2.4. Profile Type (ProfileTypeValue)

Type of geophysical profile.

4.3.2.5. Station Rank (StationRankValue)

A rank of geophysical station.

4.3.2.6. Station Type (StationTypeValue)

A type of geophysical station.

4.3.2.7. Survey Type (SurveyTypeValue)

A type of geophysical survey or data set.

4.3.2.8. Swath Type (SwathTypeValue)

A type of geophysical swath.';

(11) Section 4.4.3 is replaced by the following:

'4.4.3. Code Lists

4.4.3.1. Active Well Type (ActiveWellTypeValue)

Types of active wells.

4.4.3.2. Aquifer Media Type (AquiferMediaTypeValue)

Values describing the characteristics of the aquifer medium.

4.4.3.3. Aquifer Type (AquiferTypeValue)

Types of aquifers.

4.4.3.4. Condition Of Groundwater (ConditionOfGroundwaterValue)

Values indicating the approximate degree of change which has taken place on the natural state of groundwater.

4.4.3.5. Hydrogeochemical Rock Type (HydroGeochemicalRockTypeValue)

Values describing the hydrogeochemical condition of the groundwater environment.

4.4.3.6. Natural Object Type (NaturalObjectTypeValue)

Types of natural hydrogeological objects.

4.4.3.7. Status Code Type (StatusCodeTypeValue)

Values describing the statuses of man-made hydrogeological objects.

4.4.3.8. Water Persistence (WaterPersistenceValue)

Types of hydrological persistence of water.

4.4.3.9. Water Salinity (WaterSalinityValue)

A code list indicating salinity classes in water.';

ANNEX IV

Annex IV to Regulation (EU) No 1089/2010 is amended as follows:

(12) in Section 1.3.1, in the introductory wording, the words 'The package Vector' are replaced by the words 'The package Statistical Units Vector'.

(13) in Section 1.3.1.1, the first table is replaced by the following: '

Attribute	Definition	Type	Voidability
inspireId	External object identifier of the spatial object.	Identifier	
thematicId	Descriptive unique object identifier applied to spatial objects in a defined information theme.	ThematicIdentifier	
country	The code of the country the object belongs to.	CountryCode	
geographicalName	Possible geographical names of the object.	GeographicalName	
statisticalUnitType	Type of territorial unit used for dissemination purposes.	StatisticalUnitType Value	
validityPeriod	The period when the statistical unit is supposed to be preferably used and not.	TM_Period	
referencePeriod	The period when the data is supposed to give a picture of the territorial division in statistical units.	TM_Period	
beginLifespanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
endLifespanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable

';

(1) Section 1.3.3 is replaced by the following:

'1.3.3. Code Lists

1.3.3.1. Geometry Type (GeometryTypeValue)

The code values for the geometry types.

1.3.3.2. Evolution Type (EvolutionTypeValue)

The code values for evolution types.

1.3.3.3. Statistical Unit Type (StatisticalUnitTypeValue)

The code values for statistical unit types.';

(2) in Section 1.4.1.1, all text that follows the second table is replaced by the following:

'*Constraints of the spatial object type StatisticalGridCell*

The cell position shall be within the grid, according to its width and height.

At least one of the attributes code, geographicalPosition, gridPosition or geometry shall be provided.

Where several spatial representations are provided (code, geographicalPosition, gridPosition and geometry), they shall be consistent.

The code shall be composed of:

(1) a two-letter country code as defined in the Interinstitutional Style Guide published by the Publications Office of the European Union;

(2) a coordinate reference system part, represented by the word CRS, followed by the EPSG code;

(3) a resolution and position part:

– If the coordinate reference system is projected, the word RES followed by the grid resolution in meters and the letter m. Then, the letter N followed by the northing value in meters, and the letter E followed by the easting value in meters.

– If the coordinate reference system is not projected, the word RES followed by the grid resolution in degree-minute-second, followed by the word dms. Then the word LON followed by the longitude value in degree-minute-second, and word LAT followed by the latitude value in degree-minute-second.

For both cases, the given position shall be the position of the lower left cell corner.';

(3) Section 1.5 is replaced by the following:

'1.5. Theme-specific Requirements

(1) At least the geometry of statistical units, for which statistical data are made available under INSPIRE, shall be made available as well. This requirement applies to INSPIRE themes that refer to statistical units.

(2) For pan-European usage, the Equal Area Grid defined in Section 2.2.1 of Annex II shall be used. For pan-European usage additional allowed grid cell sizes are 2m, 5m, 20m, 50m, 200m, 500m, 2000m, 5000m, 20000m, 50000m.

(3) Statistical data shall refer to their statistical unit through the unit's external object identifier (inspireId) or thematic identifier (for vector units) or the unit's code (for grid cells).

(4) Statistical data shall refer to a specific version of a statistical unit.';

(4) in Section 2.3.1.3, the table is replaced by the following: ‘

Association role	Definition	Type	Voidability
parts	The building parts the building is composed of.	BuildingPart of the Buildings Base package	voidable

’;

(5) Section 2.3.3 is replaced by the following:

‘2.3.3. Code Lists

2.3.3.1. Building Nature (BuildingNatureValue)

Values indicating the nature of a building.

2.3.3.2. Condition Of Construction (ConditionOfConstructionValue)

Values indicating the condition of a construction.

2.3.3.3. Current Use (CurrentUseValue)

Values indicating the current use.

2.3.3.4. Elevation Reference (ElevationReferenceValue)

List of possible elements considered to capture a vertical geometry.

2.3.3.5. Height Status (HeightStatusValue)

Values indicating the method used to capture a height.

2.3.3.6. Horizontal Geometry Reference (HorizontalGeometryReferenceValue)

Values indicating the element considered to capture a horizontal geometry.’;

(6) in Sections 3.1.3, 3.1.5, 3.1.9, 3.1.10, 3.1.11, 3.1.12, 3.2.1, 3.2.5 all occurrences of ‘RangeType’ are replaced by ‘RangeType (as defined in Section 3.2.6)’;

(7) Section 3.3 is replaced by the following:

‘3.3. Code Lists

3.3.1. *FAO Horizon Master (FAOHorizonMasterValue)*

A code list of the master part of the horizon designation.

3.3.2. *FAO Horizon Subordinate (FAOHorizonSubordinateValue)*

A code list of designations of subordinate distinctions and features within the master horizons and layers, which are based on profile characteristics observable in the field and are applied during the description of the soil at the site.

3.3.3. *FAO Prime (FAOPrimeValue)*

A prime and double prime may be used to connotate the master horizon symbol of the lower of two (prime) or three (double prime) horizons having identical Arabic-numeral prefixes and letter combinations.

3.3.4. *Other Horizon Notation Type (OtherHorizonNotationTypeValue)*

A classification of a soil horizon according to a specific classification system.

3.3.5. *Other Soil Name Type (OtherSoilNameTypeValue)*

An identification of the soil profile according to a specific classification scheme.

3.3.6. *Layer Genesis Process State (LayerGenesisProcessStateValue)*

An indication whether the process specified in layerGenesisProcess is ongoing or has ceased.

3.3.7. *Layer Type (LayerTypeValue)*

A classification of a layer according to the concept that fits the purpose.

3.3.8. *Profile Element Parameter Name (ProfileElementParameterNameValue)*

Properties that can be observed to characterise the profile element.

3.3.9. *Soil Derived Object Parameter Name (SoilDerivedObjectParameterNameValue)*

Soil-related properties that can be derived from soil and other data.

3.3.10. *Soil Investigation Purpose (SoilInvestigationPurposeValue)*

A code list of possible values indicating the reasons for conducting a survey.

3.3.11. *Soil Plot Type (SoilPlotTypeValue)*

A code list of terms specifying on what kind of plot the observation of the soil is made.

3.3.12. *Soil Profile Parameter Name (SoilProfileParameterNameValue)*

Properties that can be observed to characterise the soil profile.

3.3.13. *Soil Site Parameter Name (SoilSiteParameterNameValue)*

Properties that can be observed to characterise the soil site.

3.3.14. *WRB Qualifier Place (WRBQualifierPlaceValue)*

A code list of values indicating the placement of the Qualifier with regard to the WRB reference soil group (RSG). The placement can be in front of the RSG i.e. ‘prefix’ or it can be behind the RSG i.e. ‘suffix’.

3.3.15. WRB Qualifiers (WRBQualifierValue)

A code list of possible qualifiers of the World Reference Base for Soil Resources.

3.3.16. WRB Reference Soil Group (RSG) (WRBReferenceSoilGroupValue)

A code list of possible reference soil groups (i.e. first level of classification of the World Reference Base for Soil Resources).

3.3.17. WRB Specifiers (WRBSpecifierValue)

A code list of possible specifiers.’;

(8) Section 4.3.2 is replaced by the following:

‘4.3.2. Code Lists

4.3.2.1. HILUCS (HILUCSValue)

List of land use categories to be used in INSPIRE Land Use.

4.3.2.2. Land Use Classification (LandUseClassificationValue)

List of land use categories to be used in INSPIRE Land Use and agreed at a national or local level.';

(9) in Section 4.7.2.1, the table is replaced by the following: '

Attribute	Definition	Type	Voidability
backgroundMapDate	Date of the background map used.	DateTime	
backgroundMapReference	Reference to the background map that has been used.	CharacterString	
backgroundMapURI	URI referring to service that provides background map.	URI	voidable

';

(10) Section 4.7.3 is replaced by the following:

'4.7.3. Code Lists

4.7.3.1. Level Of Spatial Plan (LevelOfSpatialPlanValue)

Territorial hierarchy of plan.

4.7.3.2. Process Step General (ProcessStepGeneralValue)

General indication of the step in the planning process that the plan is undergoing.

4.7.3.3. Regulation Nature (RegulationNatureValue)

Legal nature of the land use indication.

4.7.3.4. Plan Type Name (PlanTypeNameValue)

Types of plans as defined in the Member States.

4.7.3.5. Specific Supplementary Regulation (SpecificSupplementaryRegulationValue)

Category of supplementary regulation provided in a specific nomenclature of supplementary regulations provided by the data provider.

4.7.3.6. Supplementary Regulation (SupplementaryRegulationValue)

Types of conditions and constraints in spatial plans.';

(11) Section 5.1.6 is replaced by the following:

'5.1.6. *Environmental Health Determinant Measure (EnvHealthDeterminantMeasure)*

Attribute	Definition	Type	Voidability
location	The location of the measurement.	GM_Object	

type	The type of environmental health determinant.	EnvHealthDeterminantTypeValue	
measureTime	The time period when the measure has been performed.	TM_Period	
beginLifespanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
endLifespanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable
validFrom	The time when the information will start being used.	DateTime	voidable
validTo	The time when the information will stop being used.	DateTime	voidable
measure	The measure of environmental health determinant.	Measure	

category	The category of environmental health determinant measure.	MeasureCategoryTypeValue	

Constraints of the spatial object type EnvHealthDeterminantMeasure

Environmental health determinant measure shall be provided either as measure (attribute 'measure') or category of measure (attribute 'category').';

(12) the following Sections 5.1.6a and 5.1.6b are inserted:

'5.1.6a Environmental Health Determinant Noise Measure (EnvHealthDeterminantNoiseMeasure)

A noise measurement that is of interest for human health determinant analysis.

This type is a sub-type of EnvHealthDeterminantMeasure.

Attributes of the spatial object type EnvHealthDeterminantNoiseMeasure

Attribute	Definition	Type	Voidability
source	The noise source type.	NoiseSourceTypeValue	

5.1.6b Environmental Health Determinant Concentration Measure (EnvHealthDeterminantConcentrationMeasure)

A concentration measurement that is of interest for human health determinant analysis.

This type is a sub-type of EnvHealthDeterminantMeasure.

Attributes of the spatial object type EnvHealthDeterminantConcentrationMeasure

Attribute	Definition	Type	Voidability
component	The component whose concentration is measured.	ComponentTypeValue	
media	The media in which the concentration is measured.	MediaTypeValue	

';

(13) Sections 5.2.8, 5.2.9, 5.2.10, 5.2.11 are deleted.

(14) Section 5.3 is replaced by the following:

‘5.3. Code Lists

5.3.1. Cause Of Death (CODValue)

Data on causes of death (COD) provide information on mortality patterns and form a major element of public health information.

5.3.2. Chemical (ChemicalValue)

Name of the chemical substance.

5.3.3. Environment Health Component Type (ComponentTypeValue)

Particular component type (chemical substance, biological species, etc.) whose concentration in an environmental media is measured.

5.3.4. Disease Measure Type (DiseaseMeasureTypeValue)

Different ways how data on diseases and related health problems in a population can be reported.

5.3.5. Environment Health Determinant Type (EnvHealthDeterminantTypeValue)

Type of environmental health determinant.

5.3.6. General Health Type (GeneralHealthTypeValue)

Type of health status indicator.

5.3.7. Health Services Type (HealthServicesTypeValue)

Type of health care indicator.

5.3.8. International Classification Of Diseases (ICDValue)

Disease as defined in the International Classification of Diseases, 10th revision.

5.3.9. Matrix (MatrixValue)

Type of human tissue or compartment for biomarker measurement.

5.3.10. Environmental Health Media Type (MediaTypeValue)

The media in which the concentration of a health component is measured.

5.3.11. Noise Source Type (NoiseSourceTypeValue)

The noise source type values.

5.3.12. Statistical Aggregation Method (StatisticalAggregationMethodValue)

The types of statistical methods used to aggregate raw measurement data on the statistical unit.’;

(15) Section 6.2.2 is replaced by the following:

‘6.2. Code Lists

6.2.2.1. Appurtenance Type (AppurtenanceTypeValue)

Classification of appurtenances.

This code list comprises the values of the following code lists or other code lists specified by data providers:

– Electricity Appurtenance Type (ElectricityAppurtenanceTypeValue): Classification of electricity appurtenances, as specified in Section 6.3.2.1.

– Oil, Gas and Chemicals Appurtenance Type (OilGasChemicalsAppurtenanceTypeValue): Classification of oil, gas and chemicals appurtenances, as specified in Section 6.4.2.1.

– Sewer Appurtenance Type (SewerAppurtenanceTypeValue): Classification of sewer appurtenances, as specified in Section 6.5.2.1.

– Thermal Appurtenance Type (ThermalAppurtenanceTypeValue): Classification of thermal appurtenances, as specified in Section 6.6.2.1.

– Water Appurtenance Type (WaterAppurtenanceTypeValue): Classification of water appurtenances, as specified in Section 6.7.2.1.

6.2.2.2. Specific Appurtenance Type (SpecificAppurtenanceTypeValue)

Domain-specific classification of appurtenances.

6.2.2.3. Utility Delivery Type (UtilityDeliveryTypeValue)

Classification of utility delivery types.

6.2.2.4. Utility Network Type (UtilityNetworkTypeValue)

Classification of utility network types.

6.2.2.5. Warning Type (WarningTypeValue)

Classification of warning types.';

(16) Section 6.3.2 is replaced by the following:

'6.3.2. Code Lists

6.3.2.1. Electricity Appurtenance Type (ElectricityAppurtenanceTypeValue)

Classification of electricity appurtenances.';

(17) Section 6.4.2 is replaced by the following:

'6.4.2. Code Lists

6.4.2.1. Oil, Gas and Chemicals Appurtenance Type (OilGasChemicalsAppurtenanceTypeValue)

Classification of oil, gas, chemicals appurtenances.

6.4.2.2. Oil, Gas and Chemicals Product Type (OilGasChemicalsProductTypeValue)

Classification of oil, gas and chemicals products.';

(18) Section 6.5.2 is replaced by the following:

'6.5.2. Code Lists

6.5.2.1. Sewer Appurtenance Type (SewerAppurtenanceTypeValue)

Classification of sewer appurtenances.

6.5.2.2. Sewer Water Type (SewerWaterTypeValue)

Classification of sewer water types.';

(19) Section 6.6.2 is replaced by the following:

‘6.6.2. Code Lists

6.6.2.1. Thermal Appurtenance Type (ThermalAppurtenanceTypeValue)

Classification of thermal appurtenances.

6.6.2.2. Thermal Product Type (ThermalProductTypeValue)

Classification of thermal products.’;

(20) Section 6.7.2 is replaced by the following:

‘6.7.2. Code Lists

6.7.2.1. Water Appurtenance Type (WaterAppurtenanceTypeValue)

Classification of water appurtenances.

6.7.2.2. Water Type (WaterTypeValue)

Classification of water types.’;

(21) Section 6.8.2 is replaced by the following:

‘6.8.2. Code Lists

6.8.2.1. Environmental Facility Classification (EnvironmentalManagementFacilityTypeValue)

Classification of environmental facilities, e.g. as sites and installations.’;

(22) in Section 6.9.2.2, the table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
serviceLocationByAddress	Location of the service by referring to an address.	Address	
serviceLocationByBuilding	Location of the service by referring to a building.	Building of the Buildings 2D package	
serviceLocationByActivityComplex	Location of the service by referring to an activity complex.	ActivityComplex	
serviceLocationByGeometry	Location of the service by referring to a geometry.	GM_Object	
serviceLocationByUtilityNode	Location of the service by referring to a node related to a utility network (water,	UtilityNode	

	electricity, etc.), e.g. hydrant or emergency call point.		

’;

(23) Section 6.9.3 is replaced by the following:

‘6.9.3. Code Lists

6.9.3.1. Service Type (ServiceTypeValue)

Code list containing a classification of governmental services.’;

(24) in Section 7.1.2, the first table is replaced by the following: ‘

inspireId	External object identifier of the spatial object.	Identifier	
thematicId	Thematic object identifier.	ThematicIdentifier	voidable
name	Plain text denotation of the AbstractMonitoringObject.	CharacterString	voidable
additionalDescription	Plain text description of additional information not fitting in other attributes.	CharacterString	voidable
mediaMonitored	Monitored environmental medium.	MediaValue	
legalBackground	The legal context, in which the management and regulation of the AbstractMonitoringObject is defined.	LegislationCitation	voidable
responsibleParty	Responsible party for the AbstractMonitoringObject.	RelatedParty	voidable
geometry	Geometry associated to the AbstractMonitoringObject. For mobile facilities the geometry	GM_Object	

	represents the area the facility is expected to measure in.		
onlineResource	A link to an external document providing further information on the AbstractMonitoringObject.	URL	voidable
purpose	Reason for which the AbstractMonitoringObject has been generated.	PurposeOfCollectionValue	voidable

’;

(25) Section 7.3 is replaced by the following:

‘7.3. Code Lists

7.3.1. Measurement Regime (MeasurementRegimeValue)

Categories for different types of the MeasurementRegime.

7.3.2. Media (MediaValue)

Categories for different types of media.

7.3.3. Process Type (ProcessTypeValue)

Categories for different process types.

7.3.4. Purpose Of Collection (PurposeOfCollectionValue)

Categories for different purposes of collections.

7.3.5. Result Acquisition Source (ResultAcquisitionSourceValue)

Categories for different types of the ResultAcquisitionSource.

7.3.6. Result Nature (ResultNatureValue)

State of the result of an observation.

7.3.7. Specialised EMF Type (SpecialisedEMFTypeValue)

Categories for different types of EnvironmentalMonitoringFacilities.’;

(26) Section 8.2.2 is replaced by the following:

‘8.2.2. Production Installation (ProductionInstallation)

A stationary technical unit, such as machinery, apparatus, devices or equipment placed in position or connected for use, within which one or more activities listed in Annex I to Regulation (EC) No 166/2006 of the European Parliament and of the Council[*] and in Annex I or in Part 1 of Annex VII to Directive 2010/75/EU of the

[*] Commission Regulation (EC) No 166/2006 of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (OJ L 33, 04.02.2006).

European Parliament and of the Council[*] are carried out, and any other directly associated activities which have a technical connection with the activities listed and which could have an effect on emissions and pollution.

Attributes of the spatial object type ProductionInstallation

Attribute	Definition	Type	Voidability
inspireId	External object identifier of the spatial object.	Identifier	
thematicId	Thematic object identifier.	ThematicIdentifier	
pointGeometry	Spatial property of the spatial object.	GM_Point	
surfaceGeometry	Spatial property of the spatial object.	GM_Surface	voidable
name	Official denomination or proper or conventional name of the installation.	CharacterString	voidable
description	Descriptive statement about the installation.	CharacterString	voidable
status	The state or condition of the installation, with regard to the functional and operational order, in which it is arranged for a limited or extended time period.	StatusType	voidable
type	Special kind of an installation, denoting the operative function which has to be performed.	InstallationTypeValue	voidable

Association roles of the spatial object type ProductionInstallation

Association role	Definition	Type	Voidability
groupedInstallationPart	Minor Installations technically or legally part of an Installation	ProductionInstallationPart	voidable

’;

(27) in Section 8.2.3, the table is replaced by the following: ‘

Attribute	Definition	Type	Voidability

[*] Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010).

inspireId	External object identifier of the spatial object.	Identifier	
thematicId	Thematic object identifier.	ThematicIdentifier	
pointGeometry	Spatial property of the spatial object.	GM_Point	
surfaceGeometry	Spatial property of the spatial object.	GM_Surface	voidable
name	Official denomination or proper or conventional name of the installation part.	CharacterString	voidable
description	Descriptive statement about the installation part.	CharacterString	voidable
status	The state or condition of the installation part, with regard to the functional and operational order, in which it is arranged for a limited or extended time period.	StatusType	voidable
type	Special kind of an installation part, denoting the operative function which has to be performed.	InstallationPartTypeValue	voidable
technique	Method to reduce pollutant concentration due to the emissions	PollutionAbatementTechniqueValue	voidable

	of a technical component, typically a chimney.		

’;

(28) Section 8.4 is replaced by the following:

‘8.4. Code Lists

8.4.1. Pollution Abatement Technique (PollutionAbatementTechniqueValue)

Methods for reducing pollutant concentration due to the emissions of a technical component, typically a chimney.

8.4.2. Installation Type (InstallationTypeValue)

Values denoting the operative function which has to be performed by an installation.

8.4.3. Installation Part Type (InstallationPartTypeValue)

Values denoting the operative function which has to be performed by an installation part.

8.4.4. River Basin District (RiverBasinDistrictValue)

Code identifiers and/or names assigned to river basin districts.

8.4.5. Type of Production Building (TypeOfProductionBuildingValue)

Classification of production and industrial buildings.’;

(29) Section 9.4 is replaced by the following:

‘9.4. Code Lists

9.4.1. Livestock Species (LivestockSpeciesValue)

Classification of livestock species.

9.4.2. Aquaculture Species (AquacultureSpeciesValue)

Classification of aquaculture species.’;

(30) Section 10.3 is replaced by the following:

‘10.3. Code Lists

10.3.1. Classification Type (ClassificationTypeValue)

Code values for classification types.

10.3.2. Classification Item Type (ClassificationItemTypeValue)

Code values for classification items.

This code list comprises the values of the following code lists or other code lists defined by data providers:

– Age By 5 Years (AgeBy5YearsValue): Code values for age by 5 years classification items

– Age By Year (AgeByYearValue): Code values for age by year classification items, including one value for each one-year interval. The first value shall be ‘0-1’ with the label ‘0-1’ and the definition ‘0 to less than 1 year’, and

the last value shall be ‘100+’ with label ‘100+’ and the definition ‘100 years or older’.

– NACE Code (NACECodeValue): Classification of economic activities according to Eurostat NACE, as specified in Regulation (EC) No 1893/2006 of the European Parliament and of the Council and narrower values defined by data providers.

– Gender (GenderValue): Gender of a person or group of persons, as specified in Section 4.6 of Annex I.

10.3.3. Variable (VariableValue)

Code values for variable names.

10.3.4. Statistics Measurement Method (StatisticsMeasurementMethodValue)

Code values for statistics measurement method.

10.3.5. Status of Statistical Data (StatisticalDataStatusValue)

Code values for status.

10.3.6. Special Value (SpecialValue)

Code values for special values.’;

(31) Section 11.3 is replaced by the following:

‘11.3. Code Lists

11.3.1. Zone Type Code (ZoneTypeCode)

High-level classification defining the type of Management, Restriction or Regulation Zone.

11.3.2. Specialised Zone Type Code (SpecialisedZoneTypeCode)

Additional classification value that defines the specialised type of zone.

11.3.3. Environmental Domain (EnvironmentalDomain)

Environmental domain, for which environmental objectives can be defined.’;

(32) in Section 12.2.1, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
inspireId	External object identifier of the spatial object.	Identifier	
beginLifeSpanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
endLifeSpanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable
validFrom	The time when the exposed element started to exist in the real world.	DateTime	voidable

validTo	The time from which the exposed element no longer exists in the real world.	DateTime	voidable

’;

(33) in Section 12.2.2, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
beginLifeSpanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
determinationMethod	Specifies if the hazard area result is delineated after modelling or determined after interpretation.	DeterminationMethodValue	
endLifeSpanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable
inspireId	External object identifier of the spatial object.	Identifier	
typeOfHazard	A generic classification and a specific classification of the type of natural hazard.	NaturalHazardClassification	
validityPeriod	The time frame for which the model applies.	TM_Period	voidable

’;

(34) in Section 12.2.4, the first table is replaced by the following: ‘

Attribute	Definition	Type	Voidability

beginLifeSpanVersion	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	DateTime	voidable
endLifeSpanVersion	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	DateTime	voidable
inspireId	External object identifier of the spatial object.	Identifier	
sourceOfRisk	A generic classification and a specific classification of the type of hazard which is the source of risk.	NaturalHazardClassification	
validityPeriod	Future finite time frame where the model applies.	TM_Period	voidable

’;

(35) in Section 12.3.4, the table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
hazardCategory	A generic classification of types of natural hazards.	NaturalHazardCategoryValue	
specificHazardType	Additional classification of the natural hazard that further specifies the hazard type according to a nomenclature that is specific to this data set.	SpecificHazardTypeValue	voidable

’;

(36) Section 12.4 is deleted;

(37) Section 12.5 is replaced by the following:

‘12.5. Code Lists

12.5.1. Exposed Element Category (ExposedElementCategoryValue)

A classification of the exposed element.

12.5.2. Natural Hazard Category (NaturalHazardCategoryValue)

A generic classification of types of natural hazards.

12.5.3. Specific Exposed Element Type (SpecificExposedElementTypeValue)

An additional denomination of exposed elements.

12.5.4. Specific Hazard Type (SpecificHazardTypeValue)

An additional classification of the natural hazard.

12.5.5. Determination Method (DeterminationMethodValue)

A code list to describe the method used to define the area of hazard or risk.’;

(38) Section 13.1 is replaced by the following:

‘13.1. Structure of the Spatial Data Themes Atmospheric Conditions and Meteorological Geographical Features

The types specified for the spatial data themes Atmospheric Conditions and Meteorological Geographical Features are structured in the following packages:

– Atmospheric Conditions and Meteorological Geographical Features

– Specialised Observations (specified in Section 7.4 of Annex I)

– Processes (specified in Section 7.2 of Annex I)

– Observable Properties (specified in Section 7.3 of Annex I)

– Observation References (specified in Section 7.1 of Annex I)’;

(39) Section 13.2.1 is replaced by the following:

‘13.2.1. Code Lists

13.2.1.1. EU Air Quality Reference Component (EU_AirQualityReferenceComponentValue)

Definitions of phenomena regarding air quality in the context of reporting under Union legislation.

13.2.1.2. WMO GRIB Code and Flags Table 4.2 (GRIB_CodeTable4_2Value)

Definitions of phenomena observed in meteorology.’;

(40) Section 14.2.1 is replaced by the following:

‘14.2.1. Code Lists

14.2.1.1. BODC P01 Parameter Usage (BODC_P01ParameterUsageValue)

Definitions of phenomena observed in oceanography.’;

(41) Section 15.1.2 is replaced by the following:

‘15.1.2. *Sea (Sea)*

Extent of sea at High Water (meanHighWater).

This type is a sub-type of SeaArea.

Constraints of the spatial object type Sea

Sea is defined at Mean High Water. This constraint can be relaxed if there is not significant tidal variation in water level.

Spatial object types of type Sea shall have only one value for the extent attribute.';

(42) Section 15.1.3 is replaced by the following:

'15.1.3. Marine Circulation Zone (MarineCirculationZone)

A sea area defined by its physical and chemical circulation patterns. Typically used for management and reporting of the marine environment or marine environmental classification.

This type is a sub-type of SeaArea.

Attributes of the spatial object type MarineCirculationZone

Attribute	Definition	Type	Voidability
zoneType	The type of the Marine Circulation Zone, e.g. sedimentCell.	ZoneTypeValue	

Constraints of the spatial object type MarineCirculationZone

Spatial object types of type MarineCirculationZone shall have only one value for the extent attribute.';

(43) Section 15.1.6 is deleted;

(44) the following Section 15.2.4 is added:

'15.2.4. Shore Segment (ShoreSegment)

A Shore Segment is a section of shoreline.

Attributes of the data type ShoreSegment

Attribute	Definition	Type	Voidability
Geometry	The geometry of the ShoreSegment.	GM_Curve	
shoreClassification	The primary type of the shore segment, taken from the ShoreTypeClassificationValue code list.	ShoreTypeClassificationValue	voidable
shoreStability	The primary stability type of the shore segment, taken from the ShoreStabilityValue code list.	ShoreStabilityValue	voidable

’;

(45) Section 15.3 is replaced by the following:

‘15.3. Code Lists

15.3.1. Sea Area Type Classification (SeaAreaTypeClassificationValue)

Classification type of the SeaArea, e.g. estuary, openOcean.

15.3.2. Sea Bed Cover (SeaBedCoverValue)

Types of cover found on sea beds.

15.3.3. Sea Surface Classification (SeaSurfaceClassificationValue)

Types of sea surface layers found on sea surfaces.

15.3.4. Shore Stability (ShoreStabilityValue)

Types of the stability of shore segments.

15.3.5. Shore Type Classification (ShoreTypeClassificationValue)

Types of shore segments.

15.3.6. Zone Type (ZoneTypeValue)

Types of marine circulation zones.’;

(46) Section 16.2 is replaced by the following:

‘16.2. Code Lists

16.2.1. Region Classification Level (RegionClassificationLevelValue)

Codes defining the classification level of the region class.

16.2.2. Region Classification Scheme (RegionClassificationSchemeValue)

Codes defining the various bio-geographical regions.

16.2.3. Region Classification (RegionClassificationValue)

Codes used to define the various bio-geographical regions.

This code list comprises the values of the following code lists or other code lists defined by data providers:

– Environmental Stratification Classification (EnvironmentalStratificationClassificationValue): Codes for the climatic stratification of the environment in the Union, as specified in Metzger, M.J., Shkaruba, A.D., Jongman, R.H.G. & Bunce, R.G.H., Descriptions of the European Environmental Zones and Strata. Alterra, Wageningen, 2012.

– Marine Strategy Framework Directive Classification (MarineStrategyFrameworkDirectiveClassificationValue): Codes for the Marine Stategy Framework Directive classification, as listed in Article 4 of Directive 2008/56/EC[*].

– Natura 2000 And Emerald Bio-geographical Region Classification (Natura2000AndEmeraldBio-geographicalRegionClassificationValue): Codes for the classification of bio-geographical regions, as specified in the Code List

[*] OJ L 164, 25.6.2008, p. 19.

for Bio-geographical Regions, Europe 2011, published on the web site of the European Environment Agency.

– Natural Vegetation Classification (NaturalVegetationClassificationValue): Codes for the natural vegetation classification, as specified in the main formations in Bohn, U., Gollub, G., and Hettwer, C., Map of the natural vegetation of Europe: scale 1:2,500,000, Part 2: Legend, Bundesamt für Naturschutz (German Federal Agency for Nature conservation), Bonn, 2000.';

(47) Section 17.4 is replaced by the following:

'17.4. Code Lists

17.4.1. Qualifier Local Name (QualifierLocalNameValue)

List of values that specify the relation between a locally used name and a name used at the pan-European level.

17.4.2. Reference Habitat Type Code (ReferenceHabitatTypeCodeValue)

Values used in the Pan-European habitat classification schemes.

This code list comprises the values of the following code lists:

– EUNIS Habitat Type Code (EunisHabitatTypeCodeValue): Classification of habitat types according to the EUNIS Biodiversity database, as specified in the EUNIS habitat types classification published on the web site of the European Environment Agency.

– Habitats Directive Code (HabitatsDirectiveCodeValue): Classification of habitat types according to Annex I to Directive 92/43/EEC.

– Marine Strategy Framework Directive Code (MarineStrategyFrameworkDirectiveCodeValue): Classification of habitat types according to table 1 of Annex III to Directive 2008/56/EC.

17.4.3. Reference Habitat Type Scheme (ReferenceHabitatTypeSchemeValue)

This value defines which pan-European habitat classification scheme has been used.

17.4.4. Local Name Code (LocalNameCodeValue)

Identifier taken from any local classification scheme.';

(48) in the table in Section 18.3.2, in the third entry populationSize, the words 'RangeType' in the third column are replaced by 'RangeType (as defined in Section 18.3.3)';

(49) Section 18.4 is replaced by the following:

'18.4. Code Lists

18.4.1. Counting Method (CountingMethodValue)

Method for producing numbers indicating the abundance of a species within an aggregation unit.

18.4.2. Counting Unit (CountingUnitValue)

The defined unit used to express a counted or estimated number indicating the abundance of a species in a SpeciesDistributionUnit.

18.4.3. Local Species Name Code (LocalSpeciesNameCodeValue)

Species identifier taken from any local classification scheme.

18.4.4. Occurrence Category (OccurrenceCategoryValue)

The species population density in the SpeciesDistributionUnit.

18.4.5. Population Type (PopulationTypeValue)

The permanency of populations, particularly with regard to migratory species within a given species distribution unit.

18.4.6. Qualifier (QualifierValue)

This value defines the relation between the taxonomic concepts of a local species name and the reference species name given by reference species identifier or by a reference species scheme.

18.4.7. Reference Species Code (ReferenceSpeciesCodeValue)

Reference lists containing species identifiers.

This code list comprises the values of the following code lists:

– EU-Nomen Code (EuNomenCodeValue): Reference lists containing the EU-Nomen species identifiers, as specified in the Pan-European Species directories Infrastructure available through the EU-Nomen portal.

– EUNIS Species Code (EunisSpeciesCodeValue): Reference lists containing the EUNIS species identifiers, as specified in EUNIS Biodiversity database published on the web site of the European Environment Agency.

– Nature Directives Code (NatureDirectivesCodeValue): Reference lists containing nature directives species identifiers, as specified in the Reference Portal for Natura 2000 as defined in Commission Implementing Decision 2011/484/EU[*].

18.4.8. Reference Species Scheme (ReferenceSpeciesSchemeValue)

Reference lists defining a nomenclatural and taxonomical standard to which local names and taxonomic concepts can be mapped.

18.4.9. Residency Status (ResidencyStatusValue)

Category of the residency of the occurrences or estimated population within a given aggregation unit.';

(50) in Section 19.3.1.3, the table is replaced by the following: '

Attribute	Definition	Type	Voidability
range	Range of numbers representing the height or depth range of an Energy Resource.	VerticalExtentRangeType	
scalar	Number representing the height or depth of an Energy Resource.	Length	

';

[*] OJ L 198, 30.7.2011, p. 39–70

(51) Section 19.3.2 is replaced by the following:

‘19.3.2. Code Lists

19.3.2.1. Classification and Quantification Framework (ClassificationAndQuantificationFrameworkValue)

Values for the most widely used classification schemes to classify and quantify energy resources.

19.3.2.2. Fossil Fuel Class (FossilFuelClassValue)

Values indicating the various levels of fossil fuel resources.

19.3.2.3. Renewable and Waste (RenewableAndWasteValue)

Types of renewable and waste resources.

19.3.2.4. Fossil Fuel (FossilFuelValue)

Types of fossil fuels.

19.3.2.5. Vertical Reference (VerticalReferenceValue)

Values indicating the reference level of the vertical extent.’

(52) in Section 19.4.2.5, the table is replaced by the following: ‘

Attribute	Definition	Type	Voidability
calorificValue	Each fossil fuel resource is characterised by its own calorific value, i.e. the quantity of energy available in a unit of mass.	CalorificValueType	voidable
quantity	Amount of resource according to the specific categorisation.	FossilFuelMeasure	voidable
typeOfResource	Type of fossil fuel.	FossilFuelValue	

’;

(53) Section 19.5.2 is replaced by the following:

‘19.5.2. Code Lists

19.5.2.1. Potential Type (PotentialTypeValue)

Types of potential energy from renewable and waste resources.’

(54) Section 20.3.3 is replaced by the following:

‘20.3.3. Code Lists

20.3.3.1. Classification Method Used (ClassificationMethodUsedValue)

Codes indicating the means used to calculate the ore measurement.

20.3.3.2. Commodity Code (CommodityCodeValue)

Values indicating the type of commodity.

20.3.3.3. Enduse Potential (EndusePotentialValue)

Values indicating the end-use potential of the mineral.

20.3.3.4. Exploration Activity Type (ExplorationActivityTypeValue)

Types of exploration activity carried out.

20.3.3.5. Exploration Result (ExplorationResultValue)

Values indicating the result of the exploration activity.

20.3.3.6. Importance (ImportanceValue)

Values indicating the importance of the commodity for the Earth Resource.

20.3.3.7. Mine Status (MineStatusValue)

Values indicating the operational status of the mine.

20.3.3.8. Mineral Deposit Group (MineralDepositGroupValue)

Values indicating the grouping of mineral deposits on the basis of their generic characteristics.

20.3.3.9. Mineral Deposit Type (MineralDepositTypeValue)

Values indicating the style of mineral occurrence or deposit.

20.3.3.10. Mineral Occurrence Type (MineralOccurrenceTypeValue)

The type of mineral occurrence.

20.3.3.11. Mining Activity Type (MiningActivityTypeValue)

The type of mining activity, processing activity, or production.

20.3.3.12. Processing Activity Type (ProcessingActivityTypeValue)

Values indicating the type of processing carried out during a mining activity.

20.3.3.13. Reserve Category (ReserveCategoryValue)

The level of confidence of the estimate of the reserve.

20.3.3.14. Resource Category (ResourceCategoryValue)

Indication whether the resource is measured, indicated or inferred.’;