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Plan4all

Conceptual Data Models for Selected Themes

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¹ OJ L 79, 24.3.2005, p. 1.



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1 Introduction

The aim of the WP4 Plan4all data model definition is to define conceptual data models for the following spatial data themes defined in the INSPIRE Directive (INSPIRE, 2007):

- Land cover
- Land use
- Utility and Governmental services
- Production and industrial facilities
- Agricultural and aquaculture facilities
- Area management/restriction/regulation zones and reporting units
- Natural risk zones

The work of the second part of WP4 – Task 4.2 Conceptual data model definition for selected Themes is a design and construction of conceptual data models based on analyses of data models for selected themes used in single countries and on results of previous project task. The definition of Plan4all conceptual data models results from the methodology used for INSPIRE data specification (Figure 1). These methodology is described in documents D2.5, D2.6 and INSPIRE Consolidated UML Model.

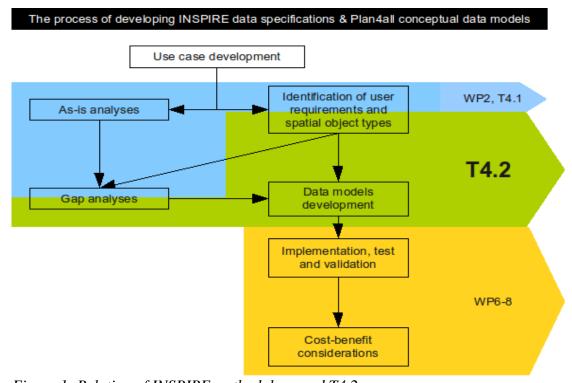


Figure 1: Relation of INSPIRE methodology and T4.2



Step	Results	Reference materials
Identification of user requirements and spatial object types	- List of spatial object types as proposals for entries in the INSPIRE Feature Concept Dictionary Register - "First cut" data specification - List of requirements (structured according to the data interoperability components described in D2.6 /section 4.2/)	D2.6 (section 6.4), D2.3, Generic Conceptual Model, ISO 19131, INSPIRE Feature Concept Dictionary Register, INSPIRE data specification template, Consolidated INSPIRE UML Model
Gap analyses	- Description of data interoperability issues derived from the identified user requirements and taking the as-is analysis into account (in principle, for every source data set) - Choice of harmonisation approach - Updated as-is analyses (additional data sources that have been identified) or updated/reduced user requirements to reduce the identified gaps	D2.6 (section 6.6), D2.6 Annex A, D2.6 Annex F
Data specification development	- Data specification (per spatial data theme) with clauses specified in ISO 19131 (including application schema in UML as well as the corresponding feature catalogue and GML application schema) - Updated Consolidated INSPIRE UML model - Updated INSPIRE Feature Concept Dictionary Register - Updated glossary	D2.6 (section 6.7), D2.6 Annex A, Generic Conceptual Model, ISO/TS 19103, ISO 19109, ISO 19110, ISO 19126, ISO 19131, INSPIRE data specification template, Consolidated INSPIRE UML Model, INSPIRE Feature Concept Dictionary Register, INSPIRE Glossary, ISO 19136

The results of WP4 will be used as inputs for the activities of WP6, WP7 and WP8, but since task 4.2, task 6.1, task 7.1 and task 8.2 run in parallel a strong coordination and link should be established among these tasks.



2 References

<UWB and general references>

- CORINE Land Cover.
- Data Specifications: D2.2-2.4: Survey of Initiatives Relevant to INSPIRE Data Specifications (http://inspire.jrc.ec.europa.eu/reports/ImplementingRules/inspireDataspecD2_2v2.0.p df)
- Data Specifications: D2.3 Definition of Annex Themes and Scope (version 2.0, http://inspire.jrc.ec.europa.eu/reports/ImplementingRules/inspireDataspecD2_3v2.0.p df)
- Data Specifications: D2.5 Generic Conceptual Model (Version 3.2, http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.5_v3.2.pdf)
- Data Specifications: D2.6 Methodology for the Development of Data Specifications (http://inspire.jrc.ec.europa.eu/reports/ImplementingRules/DataSpecifications/D2.6_v 3.0.pdf)
- Data Specifications: D2.7 Guidelines for the encoding of spatial data (Version 3.1, http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/D2.7_v3.1.pdf)
- Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).
- EN ISO 19101:2005, Geographic information Reference model
- EN ISO 19109:2006, Geographic Information Rules for application schemas
- EN ISO 19110:2006, Geographic information Methodology for feature cataloguing
- GML Application Schemas (http://inspire.jrc.ec.europa.eu/index.cfm/pageid/541/downloadid/1137)
- INSPIRE Code List Dictionaries (http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/Code% 20list% 20dictionaries% 20INSPIRE% 20Annex% 20I% 20v3.0% 20FINAL% 20DRAFT.zip)
- INSPIRE Consolidated UML Model (http://inspire.jrc.ec.europa.eu/index.cfm/pageid/541/downloadid/1136)
- INSPIRE Feature Concept Dictionary (http://inspire-registry.jrc.ec.europa.eu/registers/FCD)
- INSPIRE Glossary (http://inspire-registry.jrc.ec.europa.eu/registers/GLOSSARY)
- INSPIRE data specifications created in Annex I. (http://inspire.jrc.ec.europa.eu/index.cfm/pageid/2)
- ISO 19136:2007, Geographic Information Geography Markup Language
- Terms of Reference for developing Implementing Rules laying down technical arrangements for interoperability and harmonisation of spatial datasets of Annex II



and III themes

(http://inspire.jrc.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpec_ToR_AnnexII_III.pdf)

• UML 2.1.2, Unified Modelling Language (UML) Superstructure and Infrastructure, Version 2.1.2

<DipSU>

- Biasion A. (2007), L'informazione territoriale di base nei sistemi informativi geografici (PhD thesis), Politecnico di Torino
- CETE Normandie Centre (2008), Nomenclature pour la nouvelle base de données de l'occupation du sol du littoral 2000 2006, France
- Ciuffi C., Falzone V. (2002), Manuale di informatica, Ed. Calderoni
- Commission Regulation (EC) No. 1242/2008 of 8 December 2008 establishing a Community typology for agricultural holdings
- Commission Regulation (EC) No. 1200/2009 of 30 November 2009 implementing Regulation (EC) No. 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods, as regards livestock unit coefficients and definitions of the characteristics
- Conseil National de l'Information Geographique (2009), Plan Local d'Urbanisme -Prescriptions nationales pour la livraison des documents d'urbanisme dématérialisés, France
- De Vries M., Di Donato P., Penninga F., Concept of application-specific harmonised data model, HUMBOLDT project deliverable
- Di Donato P., Salvemini M., Berardi L. (2007), "HUMBOLDT: armonizzazione dei dati a supporto delle Infrastrutture di Dati Territoriali", Proceedings of the 11th National ASITA Conference, Torino
- Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007, establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives
- Dutch Ministry of Housing, Spatial Planning and Environment (2008), IMRO (Information model for Spatial Planning) 2008, The Netherlands
- GeoVille Information Systems GmbH (2010), LISA Land Information System Austria, Austria
- Gobierno de Navarra Departamento de Desarrollo Rural y Medio Ambiente (2010), Inventario y caracterización del regadio en Navarra, Spain
- Hopkins D., Kaza N., Pallathucheril V. G. (2005), "Representing urban development plans and regulations as data: a planning data model", Environment and Planning B: Planning and Design, 32: 597-615
- INSPIRE Thematic Working Group "Hydrography" (2007), D2.8.I.8 INSPIRE Data Specification on Hydrography Guidelines



- INSPIRE Drafting Theme "Data Specifications" (2008a), D2.3 Definition of Annex Themes and Scope
- INSPIRE Drafting Team "Data Specifications" (2008b), D2.6 Methodology for the development of data specifications
- Italian Regional Planning Law "L.R. Emilia-Romagna 20/2000", Disciplina generale sulla tutela e l'uso del territorio, Italy
- Italian Regional Planning Law "L.R. Toscana 1/2005", Norme per il governo del territorio, Italy
- Karlsruhe Institute of Technology (2010), XPlanGML Version 4.0 Objektartenkatalog, Germany
- Kuratorium für Technik und Bauwesen in der Landwirtschaft e. V., agroXML Version 1.4, Germany
- (2010), Land cover and use information system (SIOSE) Technical document, Version 2.0, Spain
- Local Government Computer Services Board (2007), iPlan Dasebase Table Layouts, Ireland
- Mildorf T., Ombuen S., Vico F. (2010), "Plan4all: data interoperability for spatial planning", 24th AESOP Annual Conference, Finland
- Norwegian Mapping Authority (2008), SOSI standard, http://www.statkart.no/nor/SOSI/SOSI_in_English/, Norway
- Plan4All (2009), D.2.1 Identification of leading regional and local administration in building SDI for spatial planning
- Provincia di Bologna (2007), Modello dati di base del PSC per il territorio provinciale bolognese, Italy
- Regione Toscana (2003), Specifiche tecniche per l'acquisizione in formato digitale dei dati geografici tematici, Italy
- Regulation (EC) No. 1893/2006 of the European Parliament and of the Council of 20
 December 2006 establishing the statistical classification of economic activities NACE
 Revision 2 and amending Council Regulation (EEC) No. 3037/90 as well as certain
 EC Regulations on specific statistical domains
- Regulation (EC) No. 166/2006 of the European Parliament and of the Council 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
- Regulation (EC) No. 451/2008 of the European Parliament and of the Council of 23 April 2008 establishing a new statistical classification of products by activity
- Regulation (EC) No. 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No. 571/88
- Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16
 December 2008 on classification, labelling and packaging of substances and mixtures,
 amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending
 Regulation (EC) No. 1907/2006



- Zongmin M. (2005), Fuzzy Database Modeling with XML, Springer US
- Groupe de travail SHOM IFREMER (2000), Données géographiques de reference en domain littoral marin, France

<CEIT ALANOVA>

General reference

- SERVITUDES D'UTILITÉ PUBLIQUE, STRUCTURATION DES DONNÉES SUP, November 2007, France
- BD Topo, version2, December 2009, National Geographic Institute, France
- Modello Dati del PSC di Bologna, November 2005, Italy
- IMRO2008 Spatial Planning Act, 2008, Holland
- Land Restriction, Easement of the SOSI standard, Norway

Area related references:

- Dumping Sites:
 - o 2009/359/EC
- Drinking Water Source:
 - Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption
- Nitrate Vulnerable Zones
 - Fao Guidelines for Good Agricultural Practice
 - o Eu Nitrate Directive, 1991
- Regulated Fairways at sea or inland waters
 - o traffic signs (Reference to Code Européen des Voies de la Navigation Intérieure)
 - Directive 2005/44/EC harmonised river information services
- Areas for dumping of waste at sea
 - Directive 2006/12/EC of the European Parliament
 - OSPAR Reporting Units
- Easement Areas
 - o SOSI, Norway
- River Basin District
 - o Directive 2000/60/EC
- Prospecting and Mining permit areas
 - control of major-accident hazards involving dangerous substances Directive 2003/105/EC
 - o management of waste from extractive industries Directive 2006/21/EC
- Noise restriction zones
- Environmental noise restriction directive 2002/49/EC



Several references are contained in following chapters (Introduction and description of data models).



3 Terminology

- application schema conceptual schema for data required by one or more applications
 [ISO 19101]
- class description of a set of objects that share the same properties, constraints, and semantics [UML 2.1.2 modified]
- code list value domain including a code for each permissible value [ISO 19136]
- conceptual model model that defines concepts of a universe of discourse [ISO 19101]
- conceptual schema formal description of a conceptual model [ISO 19101]
- conceptual schema language formal language based on a conceptual formalism for the purpose of representing conceptual schemas [ISO 19101]
- enumeration data type whose values are enumeration literals [UML 2.1.2 modified]
- feature abstraction of real world phenomena [ISO 19101]
- feature catalogue catalogue(s) containing definitions and descriptions of the spatial object types, their attributes and associated components occurring in one or more spatial data sets, together with any operations that may be applied [ISO 19110 – modified]
- general feature model meta-model for spatial object types and their property types specified by ISO 19109
- harmonised data product specifications set of data product specifications that support the provision of access to interoperable spatial data through spatial data services in a representation that allows for combining it with other interoperable spatial data in a coherent way
- INSPIRE application schema application schema specified in an INSPIRE data specification
- INSPIRE data specification harmonised data product specification for a theme adopted as an Implementing Rule
- metadata information describing spatial data sets and spatial data services and making it possible to discover, inventory and use them [INSPIRE Directive]
- spatial data data with a direct or indirect reference to a specific location or geographic area [INSPIRE Directive]
- spatial data set identifiable collection of spatial data [INSPIRE Directive]
- spatial object abstract representation of a real-world phenomenon related to a specific location or geographical area [INSPIRE Directive]
- spatial object type classification of spatial objects
- spatial schema conceptual schema of spatial geometries and topologies to be used in an application schema



4 Abbreviations

- INSPIRE Infrastructure for SPatial InfoRmation in Europe
- ISO International Organisation for Standardisation
- UML Unified Modeling Language



5 Conceptual Data Models

5.1 Introduction

5.1.1 Land Cover

Definition (INSPIRE): Physical and biological cover of the earth's surface including artificial surfaces,

agricultural areas, forests, (semi-)natural areas, wetlands, water bodies.

Definition (FAO): Land cover is the observed (bio)physical cover on the earth's surface.

Land Cover spatial data sets subject to broad applications in many fields of human activity. Their unique place is in nature conservation, monitoring the impact of industrial and agricultural processes and planning and project activities. Currently the importance of historical reconstruction through data falling into the themes of land cover increases. The data models can contribute to creation of higher level od interoperability, including data sharing and application of web services.

Land cover information has to be homogenous and comparable between different locations in Europe,

based on the infrastructures for Land Cover information created by the Member States (if existing), and

made available and maintained at the most appropriate level.

5.1.2 Land Use

Preliminary remarks

The theme "Land use" appears to be considerably different from the other INSPIRE Annex III themes that Plan4all deals with. Indeed, while other themes such as "Land cover", "Natural risk zones" or "Agriculture facilities" are more clearly and directly (even if not always) connected to the geographical data representing spatial objects, in this case what we talk about is a legal statement concerning a spatial object as regards its current and/or future function or purpose; in other words, the "geographical dimension" of the Land use theme is somehow elusive.

Indeed, this theme deals with a legal/administrative measure regarding the current and/or future function or purpose of spatial objects. Besides containing information of a purely geographic kind, an appropriate land use data model has necessarily to be connected to the plans and to the planning process, and to the norms and regulations that they entail. In other



words, this kind of data must necessarily contain, in an explicit or implicit way, directly or indirectly, information about the process.

The same INSPIRE document "D2.3 Definition of Annex Themes and Scope" shows some confusion on this matter. It defines "Land use" as the "territory characterised according to its current and future planned functional dimension or socio-economic purpose (e.g. residential, industrial, commercial, agricultural, forestry, recreational)". Immediately after, it says that "land regulation is the general spatial planning tool at regional and local levels. Land use may be characterised as ordinary mapping of existing functions as an objective picture of the use and functions of a territory, but may also be plans characterising how land may be utilised at present and in the future"; and that "there are two main land use definitions, a functional one and sequential one". Choosing the functional definition ("description of land in terms or its socio-economic purpose"), the document recommends to stick to the ISIC classification (International Standard Classification of All Economic Activities) drawn up by the United Nations. The 17 first-level categories are:

- Agriculture, Hunting and Forestry
- Fishing
- Mining and Quarrying
- Manufacturing
- Electricity, Gas and Water Supply
- Construction
- Wholesale and Retail Trade, Repair of motor vehicles, motorcycles and Personal and household goods
- Hotels and Restaurants
- Transport, Storage and Communication
- Financial intermediation
- Real estate, Renting and Business activities
- Public Administration and Defence, Compulsory social security
- Education
- Health and Social work
- Other Community, Social and Personal Service Activities
- Private Households with Employed Persons
- Extra-territorial Organizations and Bodies

This classification has been developed from a merely economic point of view, and it is difficult to consider it as a useful classification of land use as seen from a planner's point of view. For example, it is questionable trying to frame a residential use into the ISIC category "Real estate, renting and business activities", that only considers the economic function of housing and not the social one; or a use such as "protected area" or "public park" into any of the listed categories, as the environmental protection - as not being immediately relatable to an economic value - is not even included among the categories. This seems to us a first important remark on the INSPIRE framework. The main objectives of land use planning are to take care of the public assets and to ensure and regulate the general public convenience in order to manage and protect those goods and activities - of all kinds - that combine to maintain the citizens' living environment. These functions are by no means to be considered only in terms of economic revenue, as such approach would exclude most of the core aspects of the public responsibilities related to planning.

It has also to be considered that the planning process entails the coordination and involvement of different sectors. This means that much of the information that is essential to the definition of the land use has to be gathered from different actors, each having his own perception of reality, directly connected to his function and responsibilities. Interpretation of reality becomes a relevant matter here, and - talking in terms of data modelling - leads to giving



different attributes to the same objects. A river, for example, can be seen by a river basin authority in terms of flow intensity and flood recurrence interval - as he is responsible for the safety of human settlements -, whereas an environmental protection agency would look at it in terms of biological quality and ecological functionality of the banks - as he is responsible for nature conservation. All this data and all these interpretations converge towards the definition of the planned land use for the single land parcel. Each authority involved in the planning process has the power of introducing in the plan a certain land use "instruction", often deriving from an evaluation/interpretation of reality according to his functions and responsibilities.

There is also a question relating to the planning level to be considered in the model. A restrictive interpretation of the INSPIRE definition leads to intend the term "land use" as "zoning", which has traditionally been the most "central" part of the planning activity in many European countries. Traditional zoning, i.e. assigning precise functions to each land parcel, is surely the first core information to be included in a land use data model; however, the recent evolutions in the field have made planning a more complex activity. At least in France, Italy, and the UK, at least at municipal level there are plans of different levels (generally, at least two levels such as a planning framework or policy statement, and an implementation plan). Each of these plan levels contains provisions that can either have direct influence on the lower-level plan - which will acknowledge them, define them more precisely, and/or complete them with more detailed information -, or be directly binding for the land parcel. A data model of the "land use" theme intending to be really useful for planners will necessarily have to include information relating to all these planning levels.

Within this "planning cascade" system, the same land parcel is progressively given further attributes, until obtaining the exact determination of the allowed transformations: and from the legal point of view, the exact definition of the allowed land use comes from the provisions of all these planning levels.

Furthermore, the ever more frequent cases where multiple land uses are present on the same parcel (such as a commercial mall built on a railway station, or a tunnel under a protected park area) highlight the need for describing in a more appropriate way the complexity of the modern planning system.

Another relationship to deal with refers to the upper level plans (provincial, regional, national plans), which have influences on the municipal plans but sometimes also directly on the land parcel. The data model should therefore describe also the connections between the municipal plans and the upper level plans. Moreover, certain kinds of constraints often derive from national/regional laws before being elaborated by plans, and this is another information to be taken into account.

Finally, sector planning is another important issue to deal with. Indeed, the "multiplicity of powers" governing the territory obviously has an influence on land use, but at the same time, powers are separated and distributed in very different ways depending on each country, and produce many different kinds of land use indications inside the plans. Therefore, the intention of the authors of this model has been to keep it general enough, so as to allow to include the description of all possible territorial government systems.

Analysis of the existing data models and planning procedures

Starting from the data models collected in T4.1 and the analysis of the national planning procedures of WP2, a list of the relevant land use classes and attributes has been made.

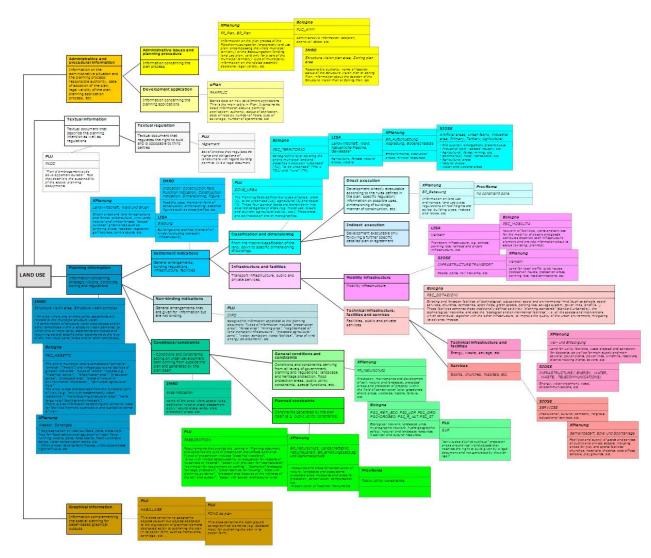


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	Xplanung				PLU		ePlan		Bologna
Flaechennutzungsplan Preparatory land use plan	FP_Plan	Information on the plan process of a Flaechenotrungsplan (preparatory land use plan, encompassing the whole municipal territory): type of municipality, information on the related assembly decisions, legal validity, etc.						PUC_AMM_ET p	Administrative information adoption, approval, dates, etc.
Bebauungsplan Binding land use plan	BP_Plan	Information on the plan process of a Bebavarasspalan (binding land use plan, valid only for a part of the municipal territory): type of municipality, information on the related assembly decisions, legal validity, etc.							
		-				PAAPPLIC	Stores data on new development applications. This is the main table in iPlan. It contains the basic information about a planning application authority, status of application, date of receipt, number of floors, type of sewerage, number of		
			ZONE_URBA	p26	The Planning Code defines four types of zones (FIR23-5to-8) urban (U), zones to be urbanized (UA), agricultural areas (A) and forest (II). These four general topics are broken down into detailed adergotine of lareas to uniform, agricultural activity, etc.). These areas are definested on one of multiple graphs: Geographic information appreciation.			PSC_TERRITORIO_PL - P PSC_TERRITORIO_AS 10	
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- First list of the land use classes from the collected models -

Then, a first classification of the possible Plan4all classes has been attempted. This classification intended to group the existing classes as much as possible, and allowed to have a general overview on the collected material.

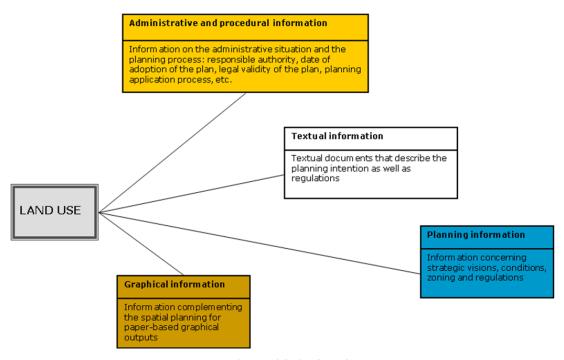




- First tentative classification -

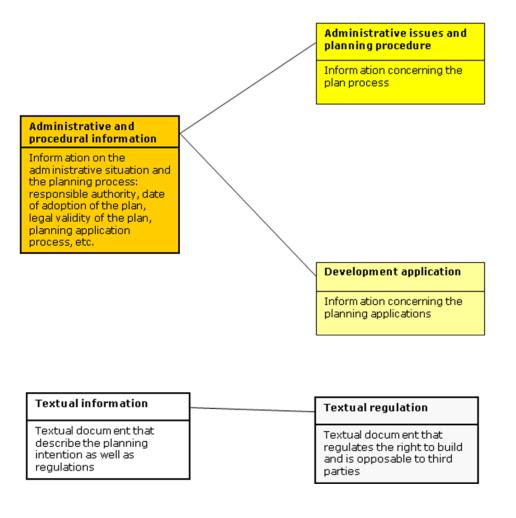
This diagram has been refined with the help of the Plan4all partners having competencies in planning. Looking at it more closely, the land use theme is composed of four macro-classes:

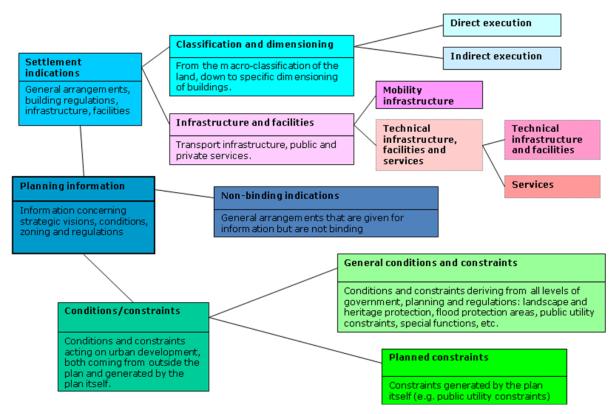




- Macro-classes of the land use theme -

The first three classes have been divided as follows:





- Subdivision of the macro-classes -

Starting from this first classification, the actual data model has been defined.

The different versions of the data model have been continuously commented and amended by the partners, especially those having competencies in planning. The last version is described in the next section of this document.

5.1.3 Agriculture and Aquaculture Facilities

This data model has been elaborated starting from the model of "Production and industrial facilities" developed in the framework of the same Plan4all activities. The general structure is quite similar as both the data models refer to production activities, which deal with substances and products that can be hazardous, pollutant, that can be turned into waste at the end of the production chain, and that can be accidentally released into the environment.

5.1.4 Area Management/Restriction/Regulation Zones and Reporting Units

The data model has been developed according the requirements from "Area management/Restriction/Regulation zones and Reporting Units" theme of INSPIRE Annex III. By definition these are areas managed, regulated or used for reporting at international, European, national, regional and local levels.

The areas/zones included in the data model are:

areas for dumping sites



- restricted areas around drinking water sources
- nitrate-vulnerable zones
- regulated fairways at sea or large inland waters
- areas for the dumping of waste
- noise restriction zones
- prospecting and mining permit areas
- river basin districts
- coastal zone management areas
- areas with the right to use a property without possessing it

The theme "area management" deals with a very wide range of features from local to international level. Also there are several links and overlaps with other INSPIRE themes: Transport Networks, Land Use, Administrative Units, Hydrography, Sea Regions, Mineral Resources, Administrative Units, etc. In some cases the data model duplicates physical features which are defined in Annex I themes. For example some reporting units are collections of administrative units (or single administrative units) and some management units are actual physical water bodies. For this reason the data model includes the duplicate geometry, as probable recipients will not have the access to all other INSPIRE data and therefore this would overcome unsatisfactory linkages between Annex I and Annex III themes.

In general the theme "area management" and its feature types deal with information content from any sector – e.g. environmental, transport, health, education, energy, fisheries, agriculture, etc. Because area management covers so many different sectors another approach could be to create a more abstract model although this could only record a minimal subset of metadata for each area without any specific sector attributes. Therefore, one more feature class was added to the data model which can describe in a more general way any other management/restriction/regulation zone and reporting unit in addition to the ones mentioned above.

5.1.5 Production and Industrial Facilities

Definition (INSPIRE)

Industrial production sites, including installations covered by Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (Directive as last amended by Regulation (EC) No 166/2006 of the European Parliament and of the Council) and water abstraction facilities, mining, storage sites.

Introduction

This data model has been elaborated starting from the INSPIRE document "Drafting Team "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope" which for the issue in question quotes a numbers of European reference directives and regulations:



- REGULATION (EC) No 166/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 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

(Annex II shows the classification of pollutants)

- REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

(Table 3.1. shows the classification of dangerous substances)

- REGULATION (EC) No 1893/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains. (Annex I shows the classification of activities)
- REGULATION (EC) No 451/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2008 establishing a new statistical classification of products by activity (CPA) and repealing Council Regulation (EEC) No 3696/93. (Annex shows the classification of products associated to the activities as classified in Commission Regulation No 1893/2006 classification NACE_REV 2).

5.1.6 Utility and Government services

Definition (INSPIRE)

Includes utility facilities such as sewage, waste management, energy supply and water supply, administrative and social governmental services such as public administrations, civil protection sites, schools and hospitals.

Controlled waste treatment sites for non-hazardous waste at land: geographical location of official or regulated facilities for waste treatment and storage; Included in the spatial component category "environmental protection facilities"

- 1 Storage sites at land landfills;
- 2 Incinerators;
- 3 Other treatment facilities.

Information on kind of treatment, kind of substances treated, capacity, percentage biodegradable waste, energy recovery from incinerators and landfills

Introduction

This data model has been elaborated starting from the INSPIRE document "Drafting Team "Data Specifications" — deliverable D2.3: Definition of Annex Themes and Scope". Moreover, other reference directive and laws have been taken into account, i.e.:

- Directive 91/156/CEE, 91/689/CEE, e 94/62/CEE
- Italian D.M. 22/97
- Decreto del Ministero dell'Ambiente n. 372/98
- Code list of wastes in conformity of 2000/532/EC annex (wastes classification)
- Code list of disposal operations in conformity of 2008/98/EC annex I (operations classification)



- Code list of recovery operations in conformity of 2008/98/EC annex II (operations classification)

5.1.7 Natural Risk Zones

Complete data model and feature catalogue is in the Annex I of this document..

5.2 Description

5.2.1 Land Cover

The created model should be as simple and clear as possible. It was the aim through the development of the model, because the model has to be useful to describe all data of land cover theme.

The basic element of the data model is homogeneous area in terms of land cover (see definition, scope and description of the theme by INSPIRE documents). Homogeneity of the area is determined by two parameters – the details of the model and the classifications used. Such area relates to other homogeneous area in terms of land cover (relation neighbourhood in the model), because data of the theme land cover are connected to continuous surface.

The model is composed two main classes

- LandCoverStadardisedArea
- LandCoverOriginalArea

These classes inherit common attributes (inspireId, geometry and source) from the abstract class LandCoverArea. Geometry is defined as the Multipolygon, which is defined by one or more Polygons, referenced through polygonMember elements.

The most important is the reference to the standard classification system (classification). We choose the CORINE land cover, but this nomenclature can be replaced by another classification (e.g. LUCAS or FAO LCCS) written as enumeration (StandardClassification).

There were used three rules through designing and constructing of the model:

- 1. To keep history through relation to original data and original nomenclature.
- 2. To re-use existing metadata elements to describe refrences and external sources.
- 3. To keep all INSPIRE rules defining the development of data models and data specifications.

5.2.2 Land Use

The "PlanObject" class bears information about the plan itself; all other information is related to this class:

- "AdministrativeInformation": information on the administrative situation and on the planning process, e.g. name of the responsible authority, date of adoption of the plan, legal validity of the plan, etc.;



- information regarding the specifications for the graphical outputs, if any ("GraphicalInformation");
- files containing the textual parts of the plan ("TextualInformation" and "TextualRegulation");
- raster files referring to old plans in paper form ("Raster");
- the single planning information ("PlanFeature"), specialising in the following classes:
- 1. "FunctionIndications", comprising all kinds of indications, from the most general classification of the municipal land (e.g. urbanized/to be urbanized/rural/natural), down to the specific function for the single land parcel. These indications can be about dimensions ("DimensioningIndications"), the type of construction ("ConstructionIndications"), and/or indirectly executable ("IndirectExecution"), in the case that the task of specifying in detail the function of a certain area is entrusted to other plans;
- 2. "ConditionsAndConstraints" acting on urban development, both coming from outside the plan and generated by the plan itself;
- 3. administrative information regarding the procedures for issuing building permits and other kinds of authorisations referring to the same plan ("DevelopmentApplications").

5.2.3 Agriculture and Aquaculture Facilities

The various classifications to be found in this data model come mainly from European directives and regulations on farm structure surveys, types of agricultural holdings, classification of economic activities, products, substances, pollutants and waste.

A general description of the main classes of the model is provided hereby.

- "Agricultural Aquaculture Holding": following Regulation n. 1166/2008 on farm structure surveys and the survey on agricultural production methods, and extending this definition to the aquaculture field, a holding is defined as a single unit (both technically and economically) which has a single management and which undertakes agricultural and/or aquaculture activities. The class describes the name, location and geometry of the holding;
- a holding can host one or more facility sites ("FacilitySite");
- a facility site can in turn contain one or more installations ("Installation");
- an installation can carry out one or more activities ("Activity"), classified according to the NACE code for the classification of economic activities;
- a facility site can be served by one or more water sources ("WaterSource"), for irrigation and/or production purposes, and
- it can contain zero or more irrigation units ("IrrigationUnit"), defined as a surface irrigated from a single water source;
- an "Easement" can be connected both to a water source and to an irrigation unit, allowing for the access to water or for the maintenance of certain irrigation devices;
- an activity carried out by one or more installations yields zero or more products ("Product"), and zero or more products can also be an input for the production activities themselves; the products are classified according to the CPA code defined by Regulation EC n. 451/2008;
- an activity can dismiss a product ("DismissedProduct"), which can be:
- 4. transferred offsite ("OffsiteTransferredProduct"), or kept within the same facility site, and at the same time also be a
- 5. "WasteProduct", according to Directive EC n. 98/2008 on waste;



- an activity carried out by one or more installations can also deliver zero or more substances ("Substance"), identified by the CAS number, and zero or more substances can also be an input for the production activities themselves;
- an activity can dismiss a substance ("DismissedSubstance"), which can be:
- 6. transferred offsite ("OffsiteTransferredSubstance"), or kept within the same facility site, and at the same time also be a
- 7. "WasteSubstance", according to Directive EC n. 98/2008 on waste;
- 8. there can also be an "AccidentalRelease" of a substance, which can take place through different means (land, air, water).

The model contains also a number of "dictionaries" of the different regulations and directives that some of the classes refer to. These concern:

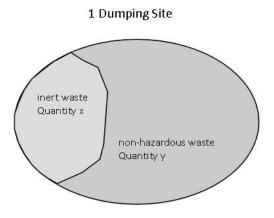
- the typology of agricultural installations and water sources;
- the typology of irrigation methods;
- the codification and description of the type of farming;
- the definition of "agricultural holding";
- the codification and description of activities and products;
- the codification and description of recovery operations, and of the properties of waste which render it hazardous;
- the classification of substances and pollutants.

For the listing of fish species, a reference to the Norwegian SOSI standard has been made, but through an extendible code list, because the source enumeration presumably contains only Nordic species.

5.2.4 Area Management/Restriction/Regulation Zones and Reporting Units

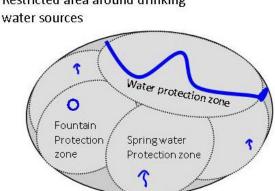
The AbstractClass contains attributes that are valid for all subclasses (e. g. object ID, geometry, etc.). The subclasses are:

Dumping sites: one dumping site can have one or more addresses and one or more sections for different kind of waste, which can be dumping areas for inert, hazardous and non-hazardous waste. Inert waste is waste that is neither chemically or biologically reactive and will not decompose. Examples of this are sand, drywall, and concrete. Hazard waste is defined in the European Waste Catalogue 200/53/EC. Hazardous waste has one of the following factors: ignitability (i. e. flammable), reactivity, corrosivity and toxicity. Non-hazardous waste is all other kind of waste. In Addition to European Regulations, there are national regulations or regulations on regional/local level as well.





Drinking water sources: There is one restricted area around one or more drinking water source(s). Depending on the drinking water source (fountain, spring water, surface water, water tanks or cistern) there can be different types of restrictions zones around the water source (fountain protection zone, spring water protection zone, 60 days stream zone to extraction, etc.) depending on national/state law (e. g. drinking water regulations on Austrian state level). Other reference: Quality of water intended for human consumption,



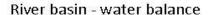
Restricted area around drinking

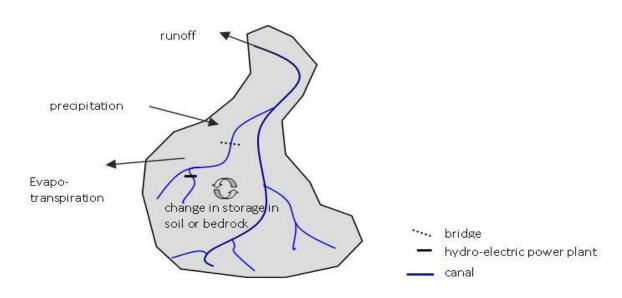
directive 1998/83/EC.

- Nitrate vulnerable zones: Designation for areas of land that drain into nitrate polluted 3 water, or water which could become polluted by nitrates. Reference: Good agriculture practice FAO guidelines.
- Regulated fairways at sea or inland waters helps determine where particular vessels are allowed to travel. Relevant are the kind of waterway information (traffic sign, water level, etc.) and the name of the waterway. Reference: Code Européen des voies de la navigation interieure (European Code for Interior Naviagation). The feature class is connected to the INSPIRE theme Transport Networks: Water Transport Networks.
- Areas for the dumping of waste at sea: definition of areas where the dumping of (liquid) waste at sea is allowed or restricted according the OSPAR commission. Important attributes are the kind of waste and its quantity. The feature class is connected to the INSPIRE theme Sea Regions. References: Dumping of waste at sea directive 2006/12/EC.
- Coastal zone management areas include the management of fishery, the definition of boundaries, the management of harbor districts, etc. Reference: Water framework directive 2000/60/EC.



- 7 Areas with the right to use property without possession. Definition of areas/certain properties with easements and activities that are accepted (e. g. fishery rights, forest rights, mooring rights, etc.).
- 8 *River basin districts*: The area of land from which all (surface) run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta. Related to INSPIRE Theme Hydrography. Reference: Harmonised river information service directive 2005/44/EC.





- 9 **Prospecting and mining permit areas**: areas with permit to search and mine for certain minerals and a certain quantity. References: Management of waste from extractive industries directive 2006/21/EC; Control of major accident hazards involving dangerous substances directive 2003/105/EC.
- 10 *Noise restriction zones:* zones where certain noise (e. g. airport, street, industry, sport noise) is restricted at certain times. Reference: Environmental noise restriction directive 2002/49/EC.
- 11 As "area management" covers information from different sectors, a class was added to the data model which can describe **any other management/regulation/restriction area** and reporting unit but with less metadata.

5.2.5 Production and Industrial Facilities

Definizione (INSPIRE)

Industrial production sites, including installations covered by Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (Directive as last



amended by Regulation (EC) No 166/2006 of the European Parliament and of the Council) and water abstraction facilities, mining, storage sites.

The general structure refers to the industrial production activities that are substances and products that can be dangerous, polluting, processed into waste at the end of the production chain and accidentally released into the environment.

The model therefore includes specific information on emissions of pollutants in the air, water and land, on the off-site transfers of waste and pollutants in wastewater and its emission thresholds.

Such data in accordance with Regulation No 166/200/CE must be reported by operators of industrial facilities that perform PRTR specific tasks, where the emission thresholds are exceeded.

Main model classes:

- Industrial Area The class describes the location and geometry of an industrial area;
- Facility Site an Industrial Area can accommodate one or more industrial facilities sites;
- *Installation* an industrial *Facility* identifies "one or more installations on the same site operated by the same natural or legal person (Article 2 parag.4 of Regulation n.166/2006/CE);
- *Activity* An *Installation* may perform one or more activities. Each activity is associated with a code according to the classification of economic activities NACE Revision 2 in Annex I to Regulation n.1893/2006/CE.
- *Product* Each A*ctivity* is associated with one or more products according to the statistical classification of products. This classification is connected to the activities defined in the Annex to Regulation No 451/2008 (EC) and vice versa, one or more products may be associated with one or more activities
- *Dismissed Product* the activity may have waste product that can be transferred off-site.
- OffsiteTransferredProduct There are two types of off-site transfer: the movement beyond the boundaries of an industrial complex of pollutants contained in wastewater which are used for the treatment, the movement beyond the boundaries of a industrial facility of waste destined for recovery or disposal.
- WasteProduct recovery and disposal of waste in accordance with the EC Directive No. 98/2008 on waste
- *Used/Dimissed Substance* The activity of one or more implants can use also polluting substances and / or dangerous. It 's a specialized subset of type: if the substance is used (Used) only the father is compiled, if it is discarded (Dismissed) it is compiled also his son.



The model contains also a number of "dictionaries" of the different regulations and directives that some of the classes refer to. These concern:

- the codification and description of activities and products;
- the codification and description of recovery operations, and of the properties of waste which render it hazardous;
- the classification of substances and pollutants

5.2.6 Utility and Government services

Description

Definition (INSPIRE)

Includes utility facilities such as sewage, waste management, energy supply and water supply, administrative and social governmental services such as public administrations, civil protection sites, schools and hospitals.

Controlled waste treatment sites for non-hazardous waste at land: geographical location of official or regulated facilities for waste treatment and storage; Included in the spatial component category "environmental protection facilities"

- 1 Storage sites at land landfills;
- 2 Incinerators;
- *3 Other treatment facilities.*

Information on kind of treatment, kind of substances treated, capacity, percentage biodegradable waste, energy recovery from incinerators and landfills

The general structure refers to the waste management facilities, which can be specialized into specific facility subtypes.

The model includes specific information on wastes and operations performed in the facility.

Main model classes:

- 1 ControlledWasteTreatmentFacility abstract representation of Official or regulated facility for waste treatment and / or storage at land (i.e.: landfill, incinerator, etc.), holding all common attributes such as operations, wastes, quantities, etc...;
- 2 *WasteTreatmentAuthorized* Facility treatment authorized, describing the wastes and the kind of treatment (disposal or recovery) applied;
- 3 Waste Code list of wastes in conformity of 2000/532/EC annex;
 - RecoveryOperation Code list of recovery operations in conformity of 2008/98/EC annex II;
 - *DisposalOperation* Code list of disposal operations in conformity of 2008/98/EC annex I;
 - Landfill Site for the disposal of waste materials by burial;
 - *Incinerator* Facility for the combustion (or other high temperature treatment) of waste materials;
 - RefuseMaterialsStorageAndRecoveryFacility Facility that receives, separates, treats and prepares recyclable materials from wastes; sometimes combining a sorting facility with a biological treatment of organic materials (such as composting);
 - WastewaterTreatmentFacility Facility for removing contaminants from wastewater, liquid wastes or household sewage. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants



The model uses a number of "dictionaries" referred to the model main classes, modelled as enumerations, as following:

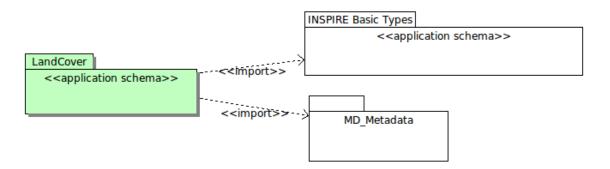
- the codification of waste types;
- the codification of managed area types
- the codification of landfill types
- the codification of forms of energy recovered
- the codification of wastewater treatment facility types

5.2.7 Natural Risk Zones

Complete data model and feature catalogue is in the Annex I of this document.

5.3 Packages

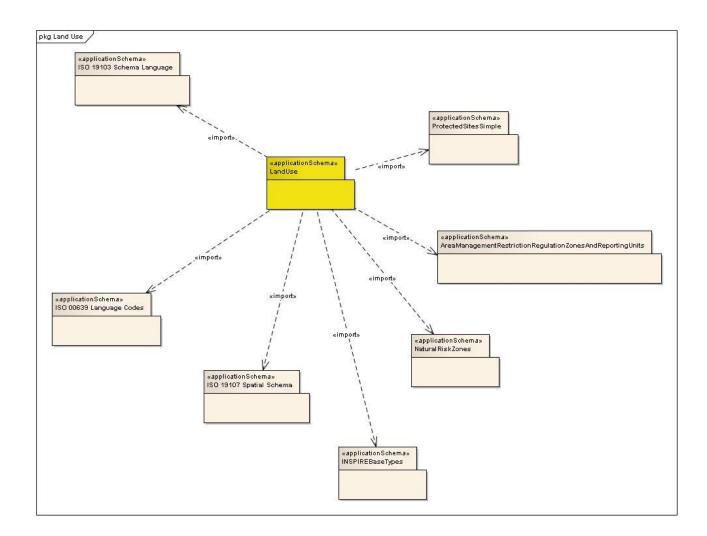
5.3.1 Land Cover



Package	Origin	Link
< <application schema="">> Land Cover</application>	New	< <import>> <<application schema="">> Geographical Names <<iimport>> <<application schema="">> INSPIRE Basic Types <<iimport>> MD_Metadata</iimport></application></iimport></application></import>
< <application schema="">> INSPIRE Basic Types</application>	Generic Conceptual Model	Imported by < <application schema="">> Land Cover</application>
MD_Metadata	Metadata standard	Imported by < <application schema="">> Land Cover</application>



5.3.2 Land Use



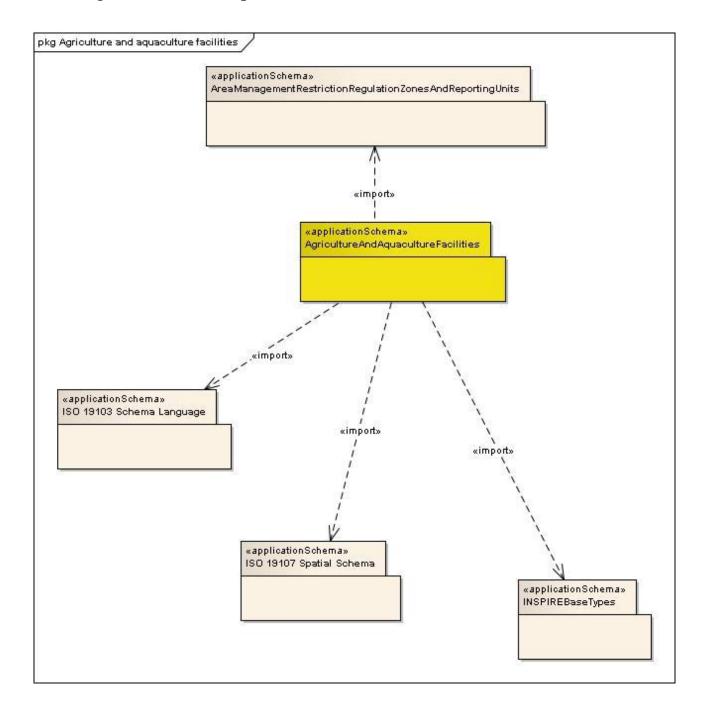
Package	Origin	Link
< <application schema="">> Land use</application>	New	<pre><<import>> <<application schema="">> Protected sites simple <<import>> <<application schema="">> Area management/restriction/regulation zones and reporting units <<import>> <<application schema="">> Natural risk zones <<import>> <<application schema="">> INSPIRE Base Types <<import>> <<application schema="">> ISO 19107 Spatial schema <<import>> <<application schema="">> ISO 00639 Language codes <<import>> <<application schema="">> ISO 19103 Schema language</application></import></application></import></application></import></application></import></application></import></application></import></application></import></pre>
< <application schema="">> Protected sites simple</application>	INSPIRE application schemas	Imported by < <application schema="">> Land use</application>



<pre><<application schema="">> Area management/restriction/re gulation zones and reporting units</application></pre>	Plan4all application schemas	Imported by < <application schema="">> Land use</application>
< <application schema="">> Natural risk zones</application>	Plan4all application schemas	Imported by < <application schema="">> Land use</application>
< <application schema="">> INSPIRE Base Types</application>	Generic Conceptual Model	Imported by < <application schema="">> Land use</application>
< <application schema="">> ISO 19107 Spatial schema</application>	ISO Foundation schemas	Imported by < <application schema="">> Land use</application>
< <application schema="">> ISO 00639 Language codes</application>	ISO Foundation schemas	Imported by < <application schema="">> Land use</application>
< <application schema="">> ISO 19103 Schema language</application>	ISO Foundation schemas	Imported by < <application schema="">> Land use</application>



5.3.3 Agriculture and Aquaculture Facilities

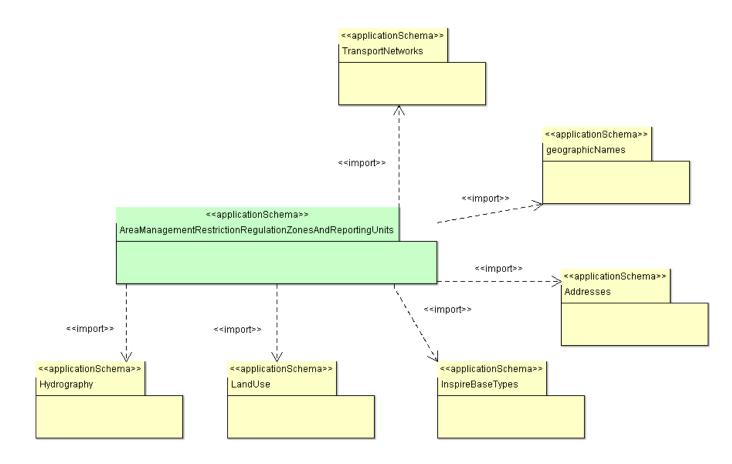


Package	Origin	Link
< <application schema="">> Agriculture and aquaculture facilities</application>	New	< <ir> <import>> <<application schema="">> Area management/restriction/regulation zones and reporting units <import>> <<application schema="">> INSPIRE Base Types <import>> <<application schema="">> ISO 19107 Spatial schema <import>> <<application schema="">> ISO 19103 Schema language</application></import></application></import></application></import></application></import></ir>



<pre><<application schema="">> Area management/restriction/re gulation zones and reporting units</application></pre>	Plan4all application schemas	Imported by < <application schema="">> Agriculture and aquaculture facilities</application>
< <application schema="">> INSPIRE Base Types</application>	Generic Conceptual Model	Imported by < <application schema="">> Agriculture and aquaculture facilities</application>
< <application schema="">> ISO 19107 Spatial schema</application>	ISO Foundation schemas	Imported by < <application schema="">> Agriculture and aquaculture facilities</application>
< <application schema="">> ISO 19103 Schema language</application>	ISO Foundation schemas	Imported by < <application schema="">> Agriculture and aquaculture facilities</application>

5.3.4 Area Management/Restriction/Regulation Zones and Reporting Units



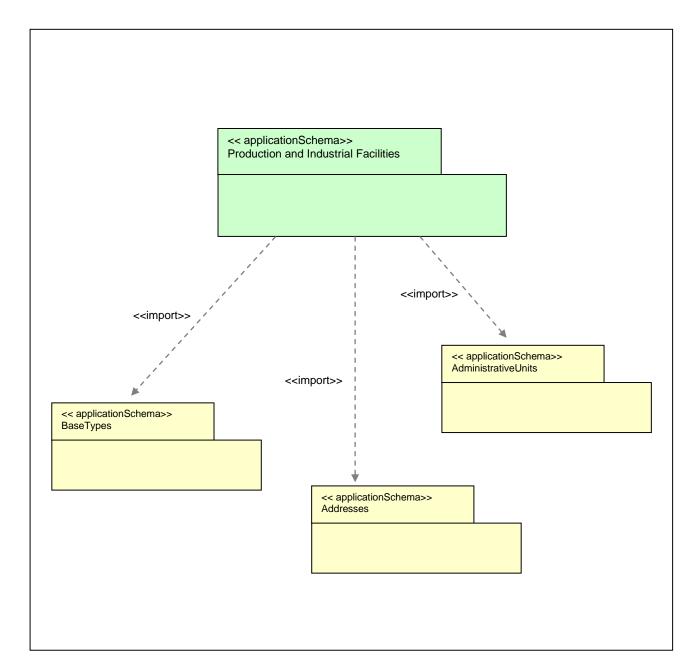
Package	Origin	Link
< <application schema="">></application>	New	< <import>> <<application schema="">></application></import>
Area		Transport networks
management/restriction/re		< <import>> <<application schema="">></application></import>
regulation zones and		Geographic names
reporting units		< <import>> <<application schema="">></application></import>



		Addresses < <import>> <<application schema="">> INSPIRE Base Types <<import>> <<application schema="">> Land Use <<import>> <<application schema="">> Hydrography</application></import></application></import></application></import>
< <application schema="">> Transport networks</application>	INSPIRE application schema	Imported by < <application schema="">> Area management/restriction/reregulation zones and reporting units</application>
< <application schema="">> Geographic names</application>	INSPIRE application schema	Imported by < <application schema="">> Area management/restriction/reregulation zones and reporting units</application>
< <application schema="">> Addresses</application>	INSPIRE application schema	Imported by < <application schema="">> Area management/restriction/reregulation zones and reporting units</application>
< <application schema="">> INSPIRE Base Types</application>	Generic Conceptual Model	Imported by < <application schema="">> Area management/restriction/reregulation zones and reporting units</application>
< <application schema="">> Land use</application>	Plan4all application schema	Imported by < <application schema="">> Area management/restriction/reregulation zones and reporting units</application>
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5.3.5 Production and Industrial Facilities

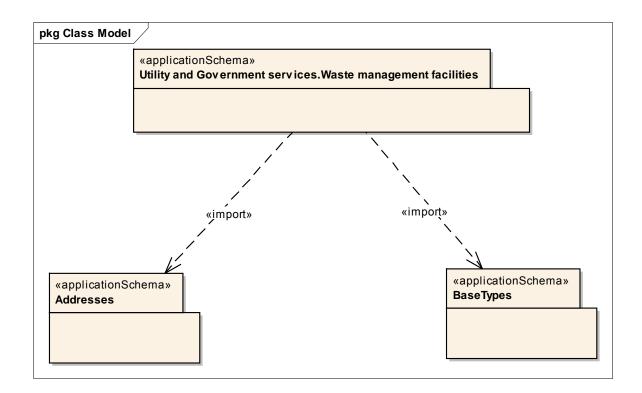


Package	Origin	Link
< <application schema="">></application>	New	< <import>> <<application schema="">></application></import>
Production and Industrial		AdministrativeUnits
Facilities		< <import>> <<application schema="">></application></import>
		Addresses
		< <import>> <<application schema="">></application></import>
		Base Types
< <application schema="">></application>	INSPIRE	Imported by < <application schema="">></application>
Addresses	application schema	Production and Industrial Facilities
< <application schema="">></application>	INSPIRE	Imported by < <application schema="">></application>
AdministrativeUnits	application schema	Production and Industrial Facilities



< <application schema="">></application>	Generic Conceptual	Imported by < <application schema="">></application>
Base Types	Model	Production and Industrial Facilities

5.3.6 Utility and Government services



Package	Origin	Link
< <application schema="">> Utility and Government services.Waste management facilities</application>	New	< <import>> <<application schema="">> Addresses <<import>> <<application schema="">> Base Types</application></import></application></import>
< <application schema="">> Addresses</application>	INSPIRE application schema	Imported by < <application schema="">> Utility and Government services. Waste management facilities</application>
< <application schema="">> Base Types</application>	Generic Conceptual Model	Imported by < <application schema="">> Utility and Government services. Waste management facilities</application>

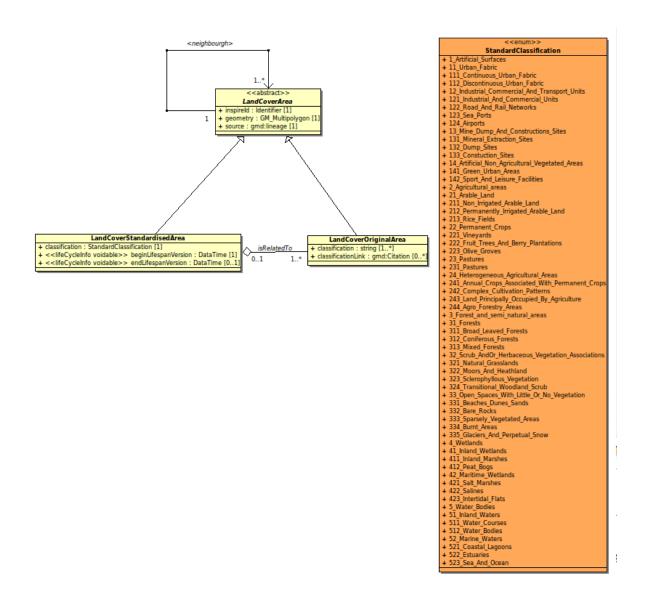
5.3.7 Natural Risk Zones

Complete data model and feature catalogue is in the Annex I of this document.



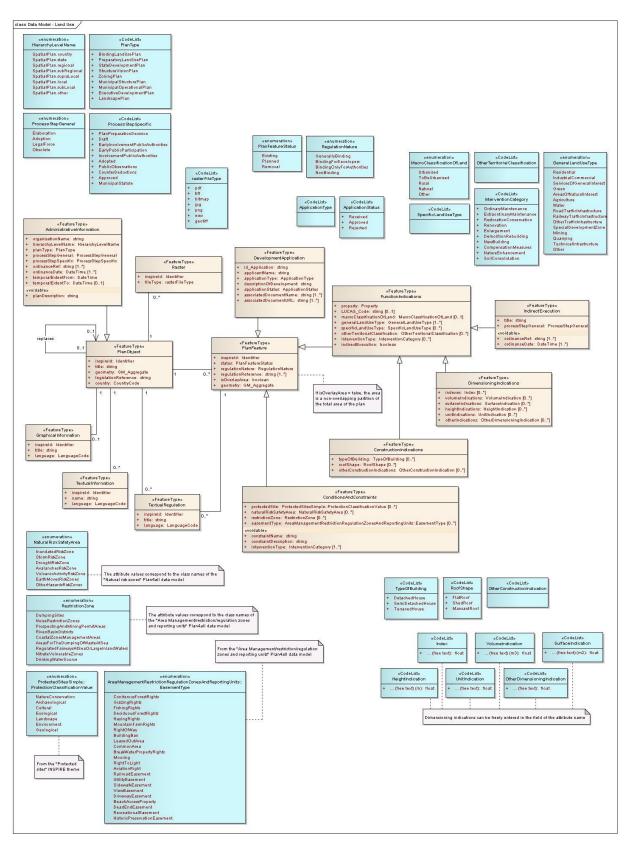
5.4 UML Class Models

5.4.1 Land Cover



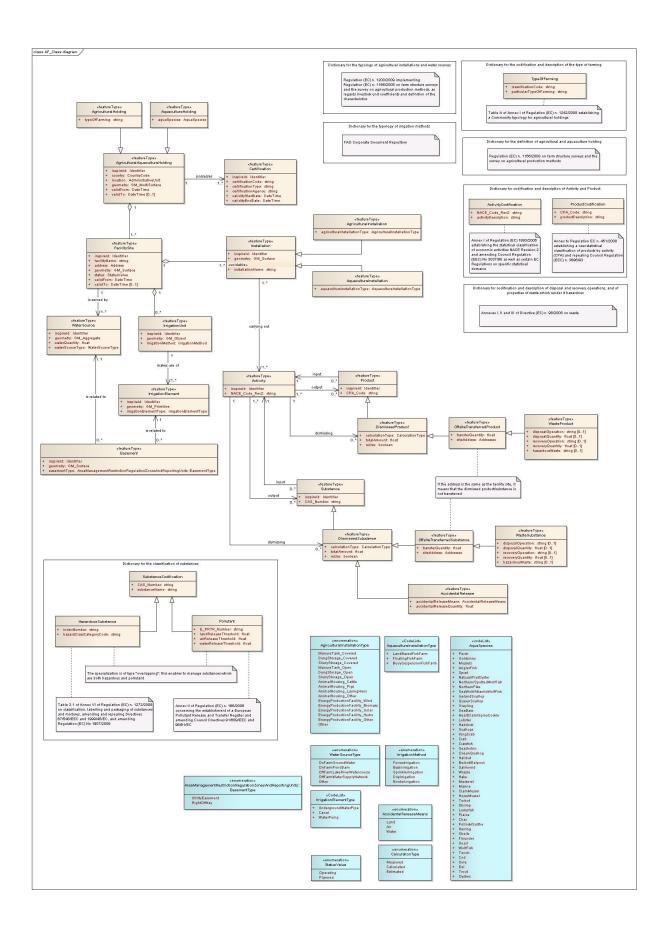
5.4.2 Land Use





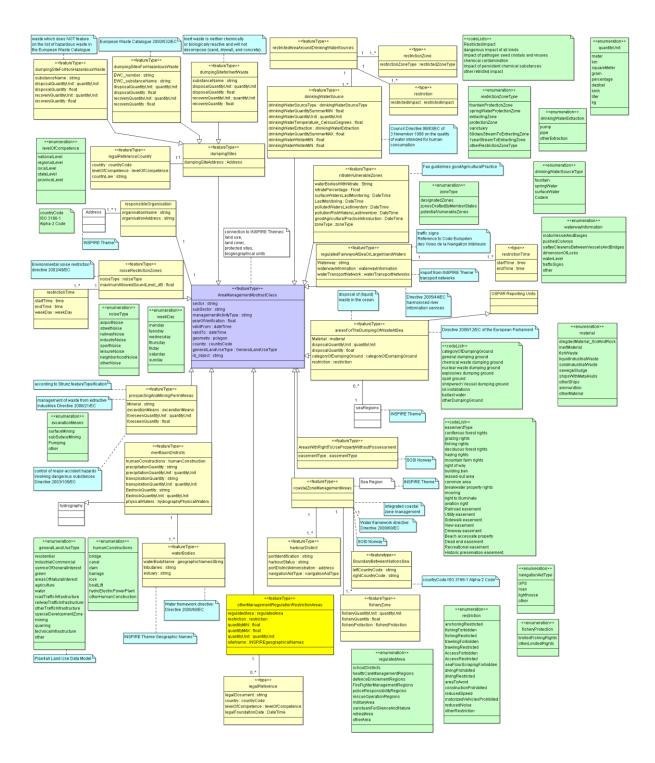
5.4.3 Agriculture and Aquaculture Facilities





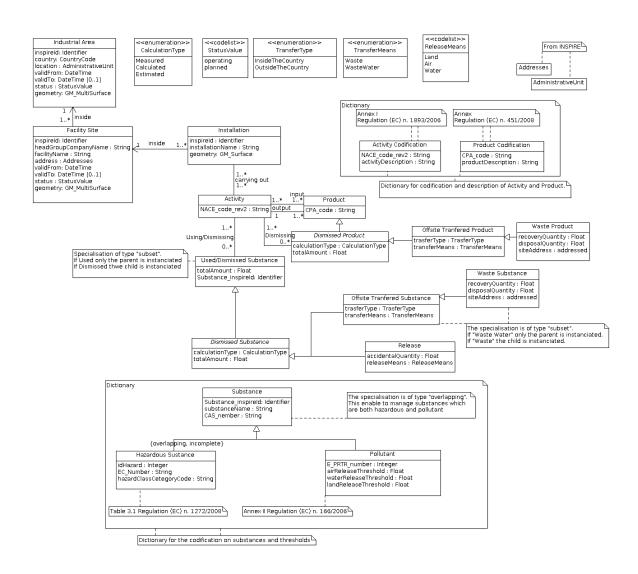


5.4.4 Area Management/Restriction/Regulation Zones and Reporting Units



5.4.5 Production and Industrial Facilities

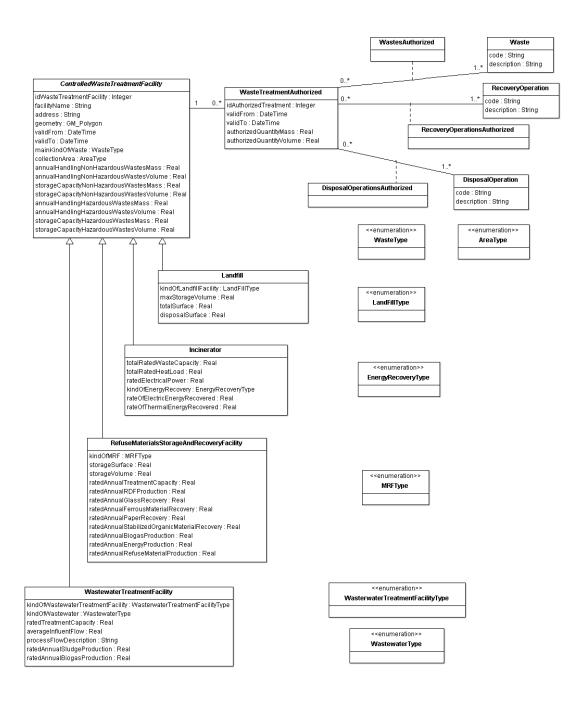




5.4.6 Utility and Government services

Utility and Government services - Controlled Waste Treatment Facilities





5.4.7 Natural Risk Zones

Complete data model and feature catalogue is in the Annex I of this document.



5.5 Feature Catalogues

5.5.1 Land Cover

Feature catalogue metadata

Feature catalogue name	Plan4all feature catalogue Land Cover
Scope	Land Cover
Version number	2.0
Version date	2010-10-21
Definition source	Plan4all data model Land Cover

Types defined in the feature catalogue

Туре	Package	Stereotypes
LandCoverArea	< <application schema="">> Land Cover</application>	< <abstract>></abstract>
LandCoverStadardisedArea	< <application schema="">> Land Cover</application>	< <featuretype>></featuretype>
LandCoverOriginalArea	< <application schema="">> Land Cover</application>	< <featuretype>></featuretype>
StandardClassification	< <application schema="">> Land Cover</application>	< <enum>></enum>

Class: LandCoverArea

LandCoverArea		
Definition	Homogeneous area in the term of land cover within the meaning of standard and/or original (national) classification.	
Description	This abstract class contains only common attributes to classes LandCoverStandardisedArea and LandCoverOriginalArea.	
Status	Proposed	
Stereotypes	< <abstract>></abstract>	
Attribute: ins	Attribute: inspireId	
Value type	Identifier	
Definition	An identifier that is used to identify a homogeneous area in the term of land cover in the real world. It provides a 'key' for implicitly associating different representations of the object.	
Description	-	
Multiplicity	1	
Stereotypes	-	
Attribute: geometry		
Value type	GM_MultiPolygon	
Definition	The geometry of the homogeneous area in the term of land cover.	



Description	A MultiPolygon is defined by one or more Polygons, referenced through polygonMember elements. [GML 3.1.1]
Multiplicity	1
Stereotypes	-
Attribute: sou	irce
Value type	gmd:lineage
Definition	Link (according metadata standard) to source data set (containing original data with default classification.
Description	In most cases realized by XLink standard.
Multiplicity	1
Stereotypes	-

Class: LandCoverStandardisedArea

LandCoverSt	andardisedArea	
Definition	Homogeneous area in the term of land cover within the meaning of standard classification.	
Description	As a standard land cover classification the CORINE land cover was selected. Homogeneity is defined by chosen classification.	
Status	Proposed	
Stereotypes	< <featuretype>></featuretype>	
Attribute: cla	ssification	
Value type	StandardClassification	
Definition	Relationship to standard classification, e.g. CLC.	
Description	The standard classification is described by complete ennumeration containing all classes of three levels of CLC. List of classes of LUCAS, FAO LCCS could be used as an alternatives of standard classification.	
Multiplicity	1	
Stereotypes	-	
Attribute: beg	ginLifespanVersion	
Value type	DataTime	
Definition	Date and time at which this version of the spatial object was inserted or changed in the spatial data set.	
Description	-	
Multiplicity	1	
Stereotypes	< <voidable,lifecycleinfo>></voidable,lifecycleinfo>	
Attribute: end	Attribute: endLifespanVersion	
Value type	DataTime	
Definition	Date and time at which this version of the spatial object was superseded or retired in the spatial data set.	



Description	-
Multiplicity	01
Stereotypes	< <voidable,lifecycleinfo>></voidable,lifecycleinfo>

Class: LandCoverOriginalArea

LandCoverOriginalArea			
Definition	Homogeneous area in the term of land cover within the meaning of more detailed (in most cases original and/or national) classification system.		
Description	This area will be defined in principle to keep potential original data including geometry.		
Status	Proposed		
Stereotypes	< <featuretype>></featuretype>		
Attribute: geo	Attribute: geometry		
Value type	GM_MultiPolygon		
Definition	The geometry of the homogeneous atomic area in the term of land cover.		
Description	A MultiPolygon is defined by one or more Polygons, referenced through polygonMember elements. [GML 3.1.1] Alternatives: GM_Object, GM_Surface, GM_MultiSurface or GM_Primitive		
Multiplicity	1		
Stereotypes	-		

 ${\it Class: Land Cover Original Area}$

LandCoverOriginalArea			
Definition	Homogeneous area in the term of land cover within the meaning of more detailed (in most cases original and/or national) classification system.		
Description	This area will be defined in principle to keep potential original data including geometry.		
Status	Proposed		
Stereotypes	-		
Attribute: cla	Attribute: classification		
Value type	string		
Definition	Land cover classification or description or nomenclature used for concrete data set by default.		
Description	This attribute will be a code of national classification. With regard to many different classification systems this attribute will be described only by text.		
Multiplicity	1*		
Stereotypes	-		
Attribute: cla	Attribute: classificationLink		
Value type	gmd:Citation		



Definition	Citation according matadata standard
Description	A link to information on default and/or original classification (nomenclature) of original data (before transformation to common data model).
Multiplicity	0*
Stereotypes	-

Enumerations and code lists

Standard Classification

StandardClassification	
Definition	List of classes of all levels of CORINE land cover classification.
Status	Proposed
Stereotypes	< <enum>></enum>
Value: all values	All values are defined in CLC – 5 classes of 1 st level, 15 classes of 2 nd level, 44 classes of 3 rd levels.

5.5.2 Land Use

Feature catalogue metadata

Feature catalogue name	Plan4all feature catalogue Land use
Scope	Land use
Version number	1.0
Version date	2010-09-20
Definition source	Plan4all data model Land use

Spatial object types

AdministrativeInformation		
Subtype of:	<u>PlanObject</u>	
Definition:	Information on the legal and administrative status of the plan and on the planning process.	
Stereotypes:	«featureType»	
Attribute: organisationName		
Value type:	String	
Definition:	Name of the authority responsible for the plan.	
Multiplicity:	1	
Attribute: hierarchyLevelName		
Value type:	<u>HierarchyLevelName</u>	
Definition:	Administrative level of plan.	
Multiplicity:	1	



Attribute: planType

Value type: PlanType

Definition: Type of plan in specific terms.

Description: NOTE The possible values are country-specific and are provided in an

extendible code list.

Multiplicity: 1

Attribute: processStepGeneral

Value type: <u>ProcessStepGeneral</u>

Definition: Information on the steps of the planning process in generic terms.

Description: NOTE The enumeration provides four values intended to be common to most

planning systems.

Multiplicity: 1

Attribute: processStepSpecific

Value type: <u>ProcessStepSpecific</u>

Definition: Detailed information on the steps of the planning process.

Description: NOTE The possible values are country-specific and are provided in an

extendible code list.

Multiplicity: 1

Attribute: ordinanceRef

Value type: String

Definition: Reference to relevant administrative ordinance.

Description: NOTE This attribute is multiple because, independently from the current legal

status of the plan, there can be references to more than one ordinance, in relation to the different steps that the planning process has already undergone (e.g. ordinance for the preparation of a new plan, ordinance of adoption, ordinance of

approval, etc.).

Multiplicity: 1..*

Attribute: ordinanceDate

Value type: DateTime

Definition: Date of the relevant administrative ordinance.

Description: NOTE This attribute is multiple because, independently from the current legal

status of the plan, there can be references to the dates of more than one ordinance, in relation to the different steps that the planning process has already undergone (e.g. ordinance for the preparation of a new plan, ordinance of

adoption, ordinance of approval, etc.).

Multiplicity: 1..*

Attribute: temporalExtentFrom

Value type: DateTime

Definition: Starting date of legal validity of the plan.

Multiplicity: 1

Attribute: temporalExtentTo

Value type: DateTime

Definition: End of legal validity of the plan.

Multiplicity: 0..1



Attribute: planDescription

Value type: String

Definition: Description of the plan.

Description: NOTE Any additional explanation on the plan in free text form.

Multiplicity: 1

Stereotypes: «voidable»

ConditionsAndConstraints

Subtype of: <u>PlanFeature</u>

Definition: Conditions and constraints acting on urban development, both coming from

outside the plan and generated by the plan itself.

Description: EXAMPLE 1 A constraint for visually protecting a landscape (example of

constraint coming from another plan, in this case a regional landscape plan). EXAMPLE 2 A constraint for protecting a building of historic importance (example of a constraint deriving from a law or an official list of historic

building protected by a Ministry or Superintendence).

EXAMPLE 3 A public utility easement along a waste water treatment plant (example of constraint generated by the same plan that decides where to locate

such a plant).

Stereotypes: «featureType»

Attribute: protectedSite

Value type: <u>ProtectedSitesSimple::ProtectionClassificationValue</u>

Definition: Type of constraint related to the protection of specific sites.

Description: SOURCE INSPIRE Data Specification on Protected Sites.

Multiplicity: 0..*

Attribute: naturalRiskSafetyArea

Value type: NaturalRiskSafetyArea

Definition: Constraint deriving from the protection of human settlement from natural risks.

Description: SOURCE Plan4all "Natural risk zones" data model.

NOTE the attribute values correspond to the class names of the above

mentioned data model.

Multiplicity: 0..*

Attribute: restrictionZone

Value type: <u>RestrictionZone</u>

Definition: Constraint deriving from specific restrictions related to areas managed,

regulated or used for reporting at international, European, national, regional and

local levels.

Description: SOURCE Plan4all "Area management/restriction/regulation zones and reporting

units" data model.

NOTE the attribute values correspond to the class names of the above

mentioned data model.

Multiplicity: 0..*

Attribute: easementType

Value type: <u>EasementType</u>

Definition: Constraint deriving from the protection of areas around public utilities or for the



public use of certain resources.

Description: SOURCE Plan4all "Area management/restriction/regulation zones and reporting

units" data model.

Multiplicity: 0..*

Attribute: constraintName

Value type: String

Definition: Name of the constraint, given by the responsible authority.

Multiplicity: 1

Stereotypes: «voidable»

Attribute: constraintDescription

Value type: String

Definition: Description of the constraint.

Description: Can include a description of what cannot be done in the area according to the

constraint.

Multiplicity: 1

Stereotypes: «voidable»

Attribute: interventionType

Value type: <u>InterventionCategory</u>

Definition: Type of intervention allowed.

Description: The attribute is multiple, as there can be more than one type of intervention

allowed.

Multiplicity: 1..*

Stereotypes: «voidable»

ConstructionIndications

Subtype of: PlanFeature

Definition: Specifications about the manners of construction of the urban developments.

Description:

Stereotypes: «featureType»

Attribute: typeOfBuilding

Value type: <u>TypeOfBuilding</u>

Definition: Type of building allowed.

Description: The attribute is multiple, as there can be more than one manner of construction

allowed.

Multiplicity: 0..*

Attribute: roofShape

Value type: RoofShape

Definition: Type of roof allowed.

Description: The attribute is multiple, as there can be more than one roof shape allowed.

Multiplicity: 0..*

Attribute: otherConstructionIndications

Value type: OtherConstructionIndications

Definition: All possible further construction indications.



Multiplicity: 0..*

DevelopmentApplication

Subtype of: PlanFeature

Definition: Administrative information on the development applications.

Description: NOTE All the information needed to track a development application.

EXAMPLE An application for obtaining a building permit, by a private owner who wants to build on his plot and starts the necessary legal/administrative

procedure.

Stereotypes: «featureType»

Attribute: id_Application

Value type: String

Definition: Identification code of the legal procedure, given by the responsible authority.

Multiplicity: 1

Attribute: applicantName

Value type: String

Definition: Name of the applicant.

Multiplicity: 1

Attribute: applicationType

Value type: ApplicationTypeChyba! Nenalezen zdroj odkazů.

Definition: Type of application.

Description: EXAMPLE Request of a building permit.

Multiplicity: 1

Attribute: descriptionOfDevelopment

Value type: String

Definition: Description of the development.

Description: Free text describing the intended transformation of the plot of land.

Multiplicity: 1

Attribute: applicationStatus

Value type: <u>ApplicationStatus</u>

Definition: Status of the application.

Description: NOTE States if the application has been received, approved, rejected, etc., by

the responsible authority.

Multiplicity: 1

Attribute: associatedDocumentName

Value type: String

Definition: Name of any document attached to the development application.

Description: Any document containing technical reports, maps, a technical drawings, etc.

Multiplicity: 1..*

Attribute: associatedDocumentURL

Value type: String

Definition: URL of any document attached to the development application, saved as a file.

Multiplicity: 1..*



DimensioningIndications

Subtype of: PlanFeature

Definition: Specifications about the dimensioning of the urban developments.

Stereotypes: «featureType»

Attribute: indexes

Value type: <u>Index</u>

Definition: Indications concerning any ratio to be respected by the developments.

Description: EXAMPLE Site occupancy index.

Multiplicity: 0..*

Attribute: volumeIndications

Value type: <u>VolumeIndication</u>

Definition: Indications concerning the volume of developments.

Description: EXAMPLE Cubic capacity.

Multiplicity: 0..*

Attribute: surfaceIndications

Value type: <u>SurfaceIndication</u>

Definition: Indications concerning the surface of developments.

Description: EXAMPLE Floor space.

Multiplicity: 0..*

Attribute: heightIndications

Value type: <u>HeightIndication</u>

Definition: Indications concerning the height of developments.

Description: EXAMPLE Gutter height.

Multiplicity: 0..*

Attribute: unitIndications

Value type: <u>UnitIndication</u>

Definition: Indications concerning the number of units to be respected.

Description: EXAMPLE 1 Maximum number of storeys.

EXAMPLE 2 Minimum number of companies.

Multiplicity: 0..*

Attribute: otherDimensioningIndications

Value type: OtherDimensioningIndication

Definition: All possible further dimensioning indications.

Multiplicity: 0..*

FunctionIndications

Subtype of: PlanFeature

Definition: Indications on the classification of the land use.

Description: NOTE From the most general classification of the land (such as urbanised/to be

urbanised/rural) to the detailed function (such as industrial area or railroad).

Stereotypes: «featureType»

Attribute: property



Value type: <u>Property</u>

Definition: Property of the land plot.

Multiplicity: 1

Attribute: LUCAS_Code

Value type: String

Definition: Code of the land use.

Description: SOURCE LUCAS classification.

Multiplicity: 0..1

Attribute: macroClassificationOfLand

Value type: <u>MacroClassificationOfLand</u>

Definition: Division of the planned area into macro-zones.

Description: EXAMPLE urbanised, to be urbanised, rural.

Multiplicity: 0..1

Attribute: generalLandUseType

Value type: <u>GeneralLandUseType</u>

Definition: General indication on the land use of an area.

Multiplicity: 1..*

Attribute: specificLandUseType

Value type: <u>SpecificLandUseType</u>

Definition: Specific indication on the land use of an area.

Multiplicity: 0..*

Attribute: otherTerritorialClassification

Value type: <u>OtherTerritorialClassification</u>

Definition: Division of the planned area into functional homogeneous macro-areas.

Description: EXAMPLE Can be areas with homogeneous functional characteristics, which

overlap to the general and specific indications of land use.

Multiplicity: 0..*

Attribute: interventionType

Value type: InterventionCategory

Definition: Type of intervention allowed.

Multiplicity: 0..*

Attribute: indirectExecution

Value type: Boolean

Definition: Development executable only following a further specific detailed plan,

programme or agreement.

Description: EXAMPLE 1 When a developer cannot start a development application

according only to the general zoning plan, but has to make an executive plan

first and get it approved.

EXAMPLE 2 When an upper level plan (such as a regional landscape plan) doesn't give exact determinations about the land use, but is acknowledged

and/or further defined by a municipal plan.

Multiplicity:

GraphicalInformation



Definition: Information complementing the spatial planning for paper-based graphical

outputs.

Description: EXAMPLE The information can concern standards for colours, line widths, etc.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Multiplicity: 1

Attribute: title

Value type: String

Definition: Name of the document containing the graphical information.

Multiplicity: 1

Attribute: language

Value type: LanguageCode

Definition: Language of the document.

Description: SOURCE ISO 00639.

Multiplicity: 1

IndirectExecution

Subtype of: PlanFeature

Definition: Information about a further plan, programme or agreement that is necessary for

implementing the land use indications given in the plan.

Description: NOTE This class gives information about the name of the further plan and its

legal status.

EXAMPLE 1 When a developer cannot start a development application according only to the general zoning plan, but has to make an executive plan

first and get it approved.

EXAMPLE 2 When an upper level plan (such as a regional landscape plan) doesn't give exact determinations about the land use, but is acknowledged

and/or further defined by a municipal plan.

Stereotypes: «featureType»

Attribute: title

Value type: String

Definition: Name of plan.

Attribute: processStepGeneral

Value type: <u>ProcessStepGeneral</u>

Definition: Information on the status of implementation of the plan.

Description: NOTE The enumeration provides four values intended to be common to most

planning systems.

Multiplicity: 1

Attribute: ordinanceRef

Value type: String

Definition: Reference to relevant administrative ordinance, if any.

Description: NOTE This attribute is multiple because, independently from the current legal

status of the plan, there can be references to more than one ordinance, in relation to the different steps that the planning process has already undergone (e.g.



ordinance for the preparation of a new plan, ordinance of adoption, ordinance of

approval, etc.).

Multiplicity: 1..*

Stereotypes: «voidable»

Attribute: ordinanceDate

Value type: DateTime

Definition: Date of the relevant administrative ordinance, if any.

Description: NOTE This attribute is multiple because, independently from the current legal

status of the plan, there can be references to the dates of more than one ordinance, in relation to the different steps that the planning process has already undergone (e.g. ordinance for the preparation of a new plan, ordinance of

adoption, ordinance of approval, etc.).

Multiplicity: 1..*

Stereotypes: «voidable»

PlanFeature (abstract)

Definition: Spatial object representing the land use indications.

Description: NOTE This class is a generalisation of the classes containing all the information

on land use.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Multiplicity:

Attribute: status

Value type: <u>PlanFeatureStatus</u>

Definition: Status of the land use indication.

Description: NOTE Indicates whether the land use is existing or planned.

Multiplicity: 1

Attribute: regulationNature

Value type: RegulationNature

Definition: Legal nature of the land use indication.

Description: NOTE Indicates whether the land use indication is legally binding or not.

Multiplicity: 1

Attribute: regulationReference

Value type: String

Definition: Textual norm of the land use indication.

Description: EXAMPLE Can be the URL of the single norm saved in text or pdf format.

Multiplicity: 1..*

Attribute: isOverlayArea

Value type: Boolean

Definition: Indicates whether the land use indication is a non-overlapping partition of the

total area of the plan, or is an overlay area.

Description: NOTE A single plan can contain multiple (and overlapping) land use

indications. It has to be specified if the indication can overlap to other



indications, or if it is a non-overlapping partition of the total area of the plan.

Multiplicity: 1

Attribute: geometry

Value type: GM_Aggregate

Definition: Type of geometry of the land use indication.

Description: NOTE The ISO type "GM_Aggregate" gives the possibility to deal with multi-

points, multi-curves and multi-surfaces.

Multiplicity: 1

PlanObject

Definition:

Spatial object representing the plan.

Description: NOTE Name and geographic extension of plan, programme, strategic vision,

etc. at any territorial level

EXAMPLE National transport plan, regional landscape plan, municipal strategic

vision, municipal zoning plan, sub-municipal development plan).

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Multiplicity: 1

Attribute: title

Value type: String

Definition: Name of plan.

Multiplicity: 1

Attribute: geometry

Value type: GM_Aggregate

Definition: Type of geometry of the plan.

Description: NOTE The ISO type "GM_Aggregate" gives the possibility to deal also with

multi-surfaces, in the case that the plan covers more than one area.

Multiplicity: 1

Attribute: legislationReference

Value type: string

Definition: Reference to the law on which the plan is based.

Multiplicity: 1

Attribute: country

Value type: CountryCode

Definition: Country in which the plan is released and legally in force.

Description SOURCE INSPIRE Base Types.

Multiplicity: 1

Raster

Definition: Scanned raster files of old plans.

Description:

Stereotypes: «featureType»



Attribute: inspireId

Value type: Identifier

Multiplicity: 1

Attribute: fileType

Value type: <u>RasterFileType</u>

Definition: Type of file of the raster image.

Multiplicity: 1

TextualInformation

Definition: Textual document describing the planning intention (not binding).

Description:

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Multiplicity: 1

Attribute: title

Value type: String

Definition: Name of the document containing the textual information.

Multiplicity: 1

Attribute: language

Value type: LanguageCode

Definition: Language of the document.

Description: SOURCE ISO 00639.

Multiplicity: 1

TextualRegulation

Definition: Textual document that regulates the right to build and is opposable to third

parties.

Description: NOTE Text accompanying the graphical part of the plan and explaining in detail

all land use regulations.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Multiplicity: 1

Attribute: title

Value type: String

Definition: Name of the document containing the textual regulation.

Multiplicity: 1

Attribute: language

Value type: LanguageCode

Definition: Language of the document.

Description: SOURCE ISO 00639.

Multiplicity: 1





Enumerations and code lists

ApplicationType

Definition: Type of application.

Description: EXAMPLE Request of building permit.

Stereotypes: «codeList»

ApplicationStatus

Definition: Status of the application.

Description: NOTE States if the application has been received, approved, rejected, etc., by

the responsible authority.

Stereotypes: «enumeration»

Value: Received

Definition: Development application having been received by the responsible authority.

Value: Approved

Definition: Development application having been approved by the responsible authority.

Value: Rejected

Definition: Development application having been rejected by the responsible authority.

EasementType

Definition: Classification of the type of easement connected to the protection of areas

around public utilities or to the public use of certain resources.

Description: SOURCE Plan4all "Area management/restriction/regulation zones and reporting

units" data model.

Stereotypes: «enumeration»

Value: ConiferousForestRights

Value: GrazingRights

Value: FishingRights

Value: DeciduousForestRights

Value: Haying Rights

Value: MountainFarmRights

Value: RightOfWay

Value: BuildingBan

Value: LeasedOutArea

Value: CommonArea

Value: BreakWaterPropertyRights

Value: Mooring

Value: RightToLight

Value: AviationRight

Value: RailroadEasement

Value: UtilityEasement



Value: SidewalkEasement

Value: ViewEasement

Value: DrivewayEasement

Value: BeachAcessProperty

Value: DeadEndEasement

Value: RecreationalEasement

Value: HistoricPreservationEasement

GeneralLandUseType

Definition: General indication on the land use of an area.

Stereotypes: «enumeration»

Value: Residential

Value: IndustrialCommercial

Value: ServicesOfGeneralInterest

Description: NOTE All services; comprises tourism services.

Value: Green

Definition: Public parks.

Value: AreasOfNaturalInterest

Description: Comprises woods.

Value: Agriculture

Value: Water

Value: RoadTrafficInfrastructure

Description: Comprises both networks and nodes.

Value: RailwayTrafficInfrastructure

Description: Comprises both networks and nodes.

Value: OtherTrafficInfrastructure

Description: NOTE Comprises both networks and nodes.

EXAMPLE Parking lots, airports, cycle tracks, intermodal nodes.

Value: SpecialDevelopmentZone

Definition: Area for special use or special function.

Description: EXAMPLE Malls, hotels, stadiums for sport, convention centres, energy

extraction.

Value: Mining

Definition: Area for mining purposes.

Value: Quarrying

Definition: Area for quarrying purposes.

Value: TechnicalInfrastructure

Description: EXAMPLE Energy and waste supply and disposal, energy networks.

Value: Other

Definition: Other functions.

HierarchyLevelName



Definition: Territorial hierarchy of plan.

Stereotypes: «enumeration»

Value: SpatialPlan.country

Definition: Plan at country (NUTS 0) level.

Value: SpatialPlan.state

Definition: Plan at federal state (NUTS I) level.

Value: SpatialPlan.regional

Definition: Plan at regional (NUTS II) level.

Value: SpatialPlan.subRegional

Definition: Plan at sub-regional (NUTS III) level.

Value: SpatialPlan.supraLocal

Definition: Plan at supra-municipal (LAU 1) level.

Value: SpatialPlan.local

Definition: Plan at municipal (LAU 2) level.

Value: SpatialPlan.subLocal

Definition: Plan at sub-municipal level.

Value: SpatialPlan.other

Definition: Other type of spatial plan.

InterventionCategory

Definition: Type of intervention allowed.

Stereotypes: «codeList»

Value: OrdinaryMaintenance

Definition: Ordinary maintenance of buildings.

Description: EXAMPLE Renovation of the plaster of a façade.

Value: ExtraordinaryMaintenance

Definition: Extraordinary maintenance of buildings.

Description: EXAMPLE Installation of photovoltaic panels on the roof.

Value: RestorationConservation

Definition: Conservation a historic building, and/or restoration respecting its traditional

features. Conservation of a natural environment, and/or restoration respecting its

natural features.

Description: EXAMPLE 1 Restoration of cornices of a historic building.

EXAMPLE 2 Reconstruction of a sand dune in a compromised coastal

environment.

Value: Renovation

Definition: Renovation of a building, also with changes of function, shape and volume.

Description: EXAMPLE Transformation of a villa into a hotel.

Value: Enlargement

Definition: Addition of new volumes to a building.

Value: NewBuilding

Definition: Construction of a new building.



Value: NatureEnhancement

Definition: Improvement of the status of a natural environment.

Description: EXAMPLE Strengthening of an ecological network.

Value: CompensationMeasures

Definition: Measures for compensating the negative outcomes of an intervention.

Description: NOTE Compensations can be executed also in other areas of the concerned

territory.

EXAMPLE Plantation of a wood in order to compensate a quarrying permit.

Value: SoilConsolidation

Definition: Measures for consolidating soils in areas with hydro-geological instabilities.

Description: EXAMPLE Consolidation of slopes by means of bioengineering techniques.

MacroClassificationOfLand

Definition: Division of the planned area into macro-zones.

Description: NOTE The macro-zones are non-overlapping partitions of the total plan area

and cover the entire plan area. They are used in some countries usually for

municipal plans.

Stereotypes: «enumeration»

Value: Urbanised

Definition: Land already urbanised.

Description: NOTE Allowed interventions usually are renovation or regeneration of the

existing buildings and districts.

Value: ToBeUrbanised

Definition: Free land that can be urbanised.

Description: NOTE Part of the territory, usually rural, where the new developments are

allowed.

Value: Rural

Definition: Rural part of the territory that cannot be urbanised.

Description: NOTE Allowed interventions usually comprise only transformations aimed at

improving or developing agricultural activities.

Value: Natural

Definition: Natural part of the territory that cannot be urbanised.

Description: EXAMPLE Can comprise woods, forests, meadows and other natural or semi-

natural areas.

Value: Other

Definition: Other types of macro-zones.

NaturalRiskSafetyArea

Definition: Classification of natural risks threatening human settlements.

Description: SOURCE Plan4all "Natural risk zones" data model.

NOTE the attribute values correspond to the class names of the above

mentioned data model.

Stereotypes: «enumeration»



Value: InundatedRiskZone

Definition: A tract periodically covered by flood water.

Description: SOURCE INSPIRE Data Specification on Hydrography.

Value: StormRiskZone

Definition: Area at risk of storms.

Description: SOURCE Plan4all "Natural risk zones" data model.

Value: DroughtRiskZone

Definition: Area at risk of storms.

Description: SOURCE According to the proposal for a Directive of the European Parliament

and of the Council establishing a framework for the protection of soil and

amending Directive 2004/35/EC.

Value: AvalanchesRiskZone

Definition: Area at risk of avalanches.

Description: SOURCE Plan4all "Natural risk zones" data model.

Value: VolcanicActivityRiskZone

Definition: Area at risk of volcanic activities.

Description: SOURCE Plan4all "Natural risk zones" data model.

Value: EarthMovesRiskZone

Definition: Area at risk of earthmoves.

Description: SOURCE Plan4all "Natural risk zones" data model.

Value: OtherHazardsRiskZone

Definition: Area at risk of other hazards.

Description: SOURCE Plan4all "Natural risk zones" data model.

 ${\bf Other Construction Indication}$

Definition: Specifies other indications about the allowed manner of construction..

Description:

Stereotypes: «codeList»

OtherTerritorialClassification

Definition: Division of the planned area into functional homogeneous macro-areas.

Description: EXAMPLE Can be areas with homogeneous functional characteristics, which

overlap to the general and specific indications of land use.

Stereotypes: «codeList»

PlanFeatureStatus

Definition: Status of the land use indication of the plan feature (existing or planned).

Description: NOTE Land use can indicate both the current and the future function of

territory.

SOURCE INSPIRE D2.3 "Definition of Annex Themes and scope" v3.0.

Stereotypes: «codeList»



Value: Existing

Definition: The land use is already existing at the time of the plan.

Value: Planned

Definition: The land use is planned by the plan.

Value: Removal

Definition: The land use indication refers to an existing settlement or infrastructure that has

to be removed in the future.

PlanType

Definition: Specific type of plan.

Stereotypes: «codeList»

Value: BindingLandUsePlan

Definition:

Value: PreparatoryLandUsePlan

Definition:

Value: StateDevelopmentPlan

Definition:

Value: StructureVisionPlan

Definition:

Value: ZoningPlan

Definition:

Value: MunicipalStructurePlan

Definition: Plan containing the general, middle-long term strategic decisions regarding the

development and the protection of the municipal territory.

Description: NOTE Classifies the territory into homogeneous

geographical/functional/landscape areas, defines the necessary facilities, sets the

general conditions influencing the development.

Value: MunicipalOperationalPlan

Definition: Plan defining the rules of land transformation and protection for the short term.

Description: NOTE Contains defined regulations about quantity and density, infrastructures

and utilities, conditions and constraints.

Value: ExecutiveDevelopmentPlan

Definition: Plan defining in detail the type of land transformation.

Description: NOTE Often being the last step of the planning process, this plan contains the

direct provisions to be applied to the land parcel in terms of quantities, density,

utilities.

Value: LandscapePlan

Definition: Plan defining the landscape features and the means for protecting them.

ProcessStepGeneral

Definition: General indication of the step of the planning process that the plan is

undergoing.



Description: NOTE This enumeration contains values that are common to most planning

systems.

Stereotypes: «enumeration»

Value: Elaboration

Definition: Plan under elaboration.

Value: Adoption

Definition: Plan in the process of being legally adopted.

Value: LegalForce

Definition: Plan already adopted and being legally binding or active.

Value: Obsolete

Definition: Plan having been substituted by another plan, or not being any longer in force.

ProcessStepSpecific

Definition: Specific indication of the step of the planning process that the plan is

undergoing.

Description: NOTE The code list is extendible in order to be adaptable to all legal

frameworks and planning systems.

Stereotypes: «codeList»

Value: PlanPreparationDecision

Value: Draft

Value: EarlyInvolvementPublicAuthorities

Value: EarlyPublicParticipation

Value: InvolvementPublicAuthorities

Value: Adopted

Definition: Plan having been adopted by the responsible authority but not yet approved by

the controlling authority.

Value: PublicObservations

Definition: Plan having been published after adoption for receiving observations from

stakeholders.

Value: CounterDeductions

Definition: Process of preparation of the responses by the responsible authority to the

observations by the stakeholders.

Value: Approved

Definition: Plan having been approved by the controlling authority and being legally in

force.

Value: MunicipalStatute

Property

Definition: Property of the plot of land that the land use indication applies to.

Stereotypes: «enumeration»

Value: Public

Definition: Public land.



Value: Private

Definition: Private land.

Value: PrivateWithSpecialPublicRights

Definition: Private land having special public rights.

Description: EXAMPLE The railway companies in Austria follow this principle.

Value: PrivateOrganisedButPublicHeld

Definition: Privately organised land being publicly held.

Description: EXAMPLE The federal forests in Austria belong to a company, but are held by

the Ministry of Forests.

Value: Unknown

Definition: Unknown owner.

ProtectedSitesSimple::ProtectionClassificationValue

Definition: The protected site classification based on the purpose of protection.

Description: SOURCE INSPIRE Data Specification on Protected Sites.

Stereotypes: «enumeration»

Value: NatureConservation

Definition: The Protected Site is protected for the maintenance of biological diversity.

Value: Archaeological

Definition: The Protected Site is protected for the maintenance of archaeological heritage.

Value: Cultural

Definition: The Protected Site is protected for the maintenance of cultural heritage.

Value: Ecological

Definition: The Protected Site is protected for the maintenance of ecological stability.

Value: Landscape

Definition: The Protected Site is protected for the maintenance of landscape characteristics.

Value: Environment

Definition: The Protected Site is protected for the maintenance of environmental stability.

Value: Geological

Definition: The Protected Site is protected for the maintenance of geological characteristics.

RasterFileType

Definition: Type of raster file of image.

Stereotypes: «codeList»

Value: pdf

Value: tiff

Value: bitmap

Value: jpg

Value: png

Value: ecw

Value: geotiff



RegulationNature

Definition: Legal nature of the land use indication.

Description: NOTE Indicates whether the land use indication is legally binding or not.

Stereotypes: «enumeration»

Value: Generally Binding

Definition: The land use indication is binding for everybody.

Value: BindingForDevelopers

Definition: The land use indication is binding only for developers.

Value: BindingOnlyForAuthorities

Definition: The land use indication is binding only for certain authorities.

Value: NonBinding

Definition: The land use indication is not binding.

RestrictionZone

Definition: Classification of areas managed, regulated or used for reporting at international,

European, national, regional and local levels.

Description: Plan4all "Area management/restriction/regulation zones and reporting units"

data model.

NOTE the attribute values correspond to the class names of the above

mentioned data model.

Stereotypes: «enumeration»

Value: DumpingSites

Value: NoiseRestrictionZones

Value: ProspectingAndMiningPermitAreas

Value: RiverBasinDistricts

Value: CoastalZoneManagementAreas

Value: AreasForTheDumpingOfWasteAtSea

Value: RegulatedFairwaysAtSeaOrLargeInlandWaters

Value: NitrateVulnerableZones

Value: DrinkingWaterSource

RoofShape

Definition: Specifies the allowed roof shape.

Stereotypes: «codeList»

Value: FlatRoof
Value: ShedRoof

Value: MansardRoof

SpecificLandUseType



Definition: Specific indication on the land use of an area.

Stereotypes: «codeList»

TypeOfBuilding

Definition: Specifies the allowed building type

Stereotypes: «codeList»

Value: DetachedHouse

Value: SemiDetachedHouse

Value: TerracedHouse

Note: for the following code lists, since the possible dimensioning indications are very numerous, attributes can be freely entered in the field of the attribute name; value types and measuring units have to respect the given rules.

Index

Definition: Indications concerning any ratio to be respected by the developments.

NOTE Free attributes can be inserted in this code list. Description:

EXAMPLE Site occupancy index.

«codeList» Stereotypes:

Value: ... (free text): Float

HeightIndication

Indications concerning the height of developments. Definition:

Description: NOTE Free attributes can be inserted in this code list.

EXAMPLE Gutter height.

Stereotypes: «codeList»

Value: ... (free text) (m): Float

SurfaceIndication

Definition: Indications concerning the surface of developments. NOTE Free attributes can be inserted in this code list. Description:

EXAMPLE Floor space.

«codeList» Stereotypes:

Value: ... (free text) (m²): Float

UnitIndication

Definition: Indications concerning the number of units to be respected.

NOTE Free attributes can be inserted in this code list. Description:

> EXAMPLE 1 Maximum number of storeys. EXAMPLE 2 Minimum number of companies.

Stereotypes: «codeList»



Value: ... (free text) : Float

VolumeIndication

Definition: Indications concerning the volume of developments.

Description: NOTE Free attributes can be inserted in this code list.

EXAMPLE Cubic capacity.

Stereotypes: «codeList»

Value: ... (free text) $\overline{(m^3)}$: Float

OtherDimensioningIndications

Definition: All possible further dimensioning indications.

Description: NOTE Free attributes can be inserted in this code list.

Stereotypes: «codeList»

Value: ... (free text) : Float

5.5.3 Agriculture and Aquaculture Facilities

Feature catalogue metadata

Feature catalogue name	Plan4all feature catalogue Agriculture and aquaculture activities
Scope	Agriculture and aquaculture activities
Version number	1.0
Version date	2010-09-20
Definition source	Plan4all data model Agriculture and aquaculture activities



Spatial object types

AccidentalRelease

Subtype of: DismissedSubstance

Definition: Introduction of pollutants into the environment, according to the definition

given by Article 2 of Regulation (EC) N. 166/2006.

Stereotypes: «featureType»

Attribute: accidentalReleaseMeans

Value type: <u>AccidentalReleaseMeans</u>

Definition: Indicates whether the pollutant is estimated to be accidentally released into air,

land or water.

Multiplicity: 1

Attribute: accidentalReleaseQuantity

Value type: Float

Definition: Estimated quantity of pollutant which is accidentally released.

Multiplicity:

Activity

Definition: Activity according to Annex I of regulation (EC) n. 1893/2006.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: NACE_Code_Rev2

Value type: string

Definition: Number code of 4 characters grouping the same productive processes - Annex I

of Regulation (EC) n. 1893/2006.

Multiplicity: 1

ActivityCodification

Definition: Code table of activities, based on Annex I of regulation (EC) n. 1893/2006.

Stereotypes: «featureType»

Attribute: NACE_Code_Rev2

Value type: string

Definition: Number code of 4 characters grouping the same productive processes - Annex I

of Regulation (EC) n. 1893/2006.

Multiplicity: 1

Attribute: activityDescription

Value type: string

Definition: Description of the activity, based on Annex I of Regulation (EC) n. 1893/2006.

Multiplicity:



AgriculturalAquacultureHolding

Definition: Single unit (both technically and economically) which has a single management

and which undertakes agricultural and/or aquaculture activities.

Description: NOTE The definition is taken from Regulation n. 1166/2008 on farm structure

surveys and the survey on agricultural production methods (the definition is valid for the agricultural holdings, but in this case it has been extended to

aquaculture also).

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: country

Value type: CountryCode

Definition: Two-character code as defined by ISO 03166.

Multiplicity: 1

Attribute: location

Value type: AdministrativeUnit

Definition: Unit of administration where a Member State has and/or exercises jurisdictional

rights, for local, regional and national governance.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity 1

Attribute: geometry

Value type: GM_MultiSurface

Definition: The geometry of the holding, which is likely to be composed of separate areas.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity 1

Attribute: validFrom

Value type: DateTime

Definition:

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity 1

Attribute: validTo

Value type: DateTime

Definition:

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity 0..1

Agricultural Holding

Subtype of: Agricultural Aquaculture Holding

Definition: Single unit (both technically and economically) which has a single management

and which undertakes agricultural activities.

Description: NOTE The definition is taken from Regulation (EC) n. 1166/2008 on farm

structure surveys and the survey on agricultural production methods.



Stereotypes: «featureType»

Attribute: typeOfFarming

Value type: string

Definition: 3-character code and description of the particular type of farming, according to

table A of Annex I of Regulation (EC) n. 1242/2008.

Description: NOTE The Regulation (EC) n. 1242/2008 classifies agricultural holdings

according to their predominant types of production.

Multiplicity: 1

AgriculturalInstallation

Subtype of: <u>Installation</u>

Definition: A technical unit operated by the same owner of the agricultural holding, where

one or more activities listed in Annex I of Regulation (EC) n. 1893/2006 are

carried out.

Stereotypes: «featureType»

Attribute: agriculturalInstallationtype

Value type: <u>AgriculturalInstallationType</u>

Definition: Type of agricultural installation, according to Regulation (EC) n. 1200/2009.

Multiplicity: 1

AquacultureHolding

Subtype of: <u>AgriculturalAquacultureHolding</u>

Definition: Single unit (both technically and economically) which has a single management

and which undertakes aquaculture activities.

Description: NOTE The definition is taken from Regulation (EC) n. 1166/2008 on farm

structure surveys and the survey on agricultural production methods (the definition is valid for the agricultural holdings, but in this case it has been

extended to aquaculture also).

Stereotypes: «featureType»

Attribute: aquaSpecies

Value type: <u>AquaSpecies</u>

Definition: Aquatic species that the holding breeds.

Description: SOURCE Extendible code list with base values taken from the SOSI Norwegian

standard.

Multiplicity: 1..*

AquacultureInstallation

Subtype of: <u>Installation</u>

Definition: A technical unit operated by the same owner of the aquaculture holding, where

one or more activities listed in Annex I of Regulation (EC) n. 1893/2006 are

carried out.

Stereotypes: «featureType»

Attribute: aquacultureInstallationtype

Value type: <u>AquacultureInstallationType</u>

Definition: Type of aquaculture installation.



Multiplicity: 1

Certification

Definition: Indicates whether the holding possesses some kind of quality and/or

environmental certification.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: certificationCode

Value type: string

Definition: Code given to the certification by the certifying agency/the relevant authority.

Multiplicity: 1

Attribute: certificationType

Value type: string

Definition: Reference to the certification standard/norm/regulation.

Description: EXAMPLE 1 Protected Designation of Origin - Regulation (EC) n. 628/2008

on the protection of geographical indications and designations of origin for

agricultural products and foodstuffs.

EXAMPLE 2 EMAS – Regulation (EC) n. 1221/2009 on the voluntary participation by organisations in a Community eco-management and audit

scheme.

Multiplicity: 1

Attribute: certificationAgency

Value type: string

Definition: Name of the body/agency/company certifying the holding.

Multiplicity: 1

Attribute: validityStartDate

Value type: DateTime

Definition: Starting date of validity of the certification.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: validityEndDate

Value type: DateTime

Definition: Date of end of validity of the certification.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

DismissedProduct (Abstract)

Subtype of: Product

Definition: A product that is dismissed by an agricultural/aquaculture activity.

Stereotypes: «featureType»

Attribute: calculationType



Value type: <u>CalculationType</u>

Definition: Indicates how the quantity of dismissed product is calculated.

Multiplicity: 1

Attribute: totalAmount

Value type: Float

Definition: Quantity of dismissed product.

Multiplicity: 1

Attribute: reUse

Value type: Boolean

Definition: Indicates whether the product is re-used in the production activities.

Description: NOTE the product can be either re-used in the same installation, or transferred

and re-used elsewhere.

Multiplicity: 1

DismissedSubstance (abstract)

Definition: A substance that is dismissed by an agricultural/aquaculture activity.

Stereotypes: «featureType»

Attribute: calculationType

Value type: <u>CalculationType</u>

Definition: Indicates how the quantity of dismissed substance is calculated.

Multiplicity: 1

Attribute: totalAmount

Value type: Float

Definition: Quantity of dismissed substance.

Multiplicity: 1

Attribute: reUse

Value type: Boolean

Definition: Indicates whether the substance is re-used in the production activities.

Description: NOTE the substance can be either re-used in the same installation, or transferred

and re-used elsewhere.

Multiplicity: 1

Easement

Definition: Easement attached to the irrigation element.

Description: EXAMPLE Easement attached to water canals allowing for their maintenance.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Surface

Definition: The geometry of the easement.



Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: easementType

Value type: <u>AreaManagementRestrictionRegulationZonesAndReportingUnits::EasementTy</u>

pe

Definition: Name or description of the easement.

Description: SOURCE Plan4all "Area management/restriction/regulation zones and reporting

units" data model.

Multiplicity: 1

FacilitySite

Definition: Geographical location of one or more installations operated by the same owner

of the agricultural/aquaculture holding.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: facilityName

Value type: string

Definition: Name of the facility.

Multiplicity: 1

Attribute: address

Value type: Address

Definition: Address of the facility.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Surface

Definition: The geometry of the facility site.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity 1

Attribute: status

Value type: <u>Status Value</u>

Definition: Indicates whether the facility is existing or planned.

Multiplicity: 1

Attribute: validFrom

Value type: DateTime

Definition:

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: validTo

Value type: DateTime



Definition:

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 0..1

HazardousSubstance

Subtype of: SubstanceCodification

Definition: A substance or a mixture fulfilling the criteria relating to physical hazards,

health hazards or environmental hazards, laid down in Parts 2 to 5 of Annex I

of Regulation (EC) n. 1272/2008.

Stereotypes: «featureType»

Attribute: indexNumber

Value type: string

Definition: 9-character code identifying the type of hazardous substance according to Table

3.1 of Annex VI of Regulation (EC) n. 1272/2008.

Multiplicity: 1

Attribute: hazardClassCategoryCode

Value type: string

Definition: Hazard class and category code according to Table 3.1 of Annex VI of

Regulation (EC) n. 1272/2008.

Multiplicity: 1..*

Installation

Definition: Geographical location of a technical unit operated by the same owner of the

agricultural/aquaculture holding, where one or more activities listed in Annex I

of Regulation (EC) n. 1893/2006 are carried out.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Surface

Definition: The geometry of the installation.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: installationName

Value type: string

Definition: Name of the installation.

Multiplicity: 1

Stereotypes: «voidable»

IrrigationElement

Definition: Device for irrigating a field.

Stereotypes: «featureType»



Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Primitive

Definition: The geometry of the irrigation element.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: irrigationElementType

Value type: <u>IrrigationElementType</u>
Definition: Type of irrigation element.

Multiplicity: 1

IrrigationUnit

Definition: Surface which is irrigated from a single water source.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Aggregate

Definition: The geometry of the irrigation unit.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: irrigationMethod

Value type: <u>IrrigationMethod</u>
Definition: Method of irrigation.

Description: SOURCE FAO Corporate Document Repository.

Multiplicity: 1

Off site Transferred Product

Subtype of: <u>DismissedProduct</u>

Definition: A dismissed product that is transferred beyond the boundaries of a facility.

Stereotypes: «featureType»

Attribute: transferQuantity

Value type: Float

Definition: Quantity of the transferred dismissed product.

Multiplicity: 1

Attribute: siteAddress

Value type: Addresses

Definition: Address of the site where the dismissed product is transferred.



Description: SOURCE INSPIRE UML Consolidated Model

NOTE If the address is the same as the facility site, it means that the dismissed

product is not transferred, but remains inside the facility.

Multiplicity: 1

OffsiteTransferredSubstance

Subtype of: <u>DismissedSubstance</u>

Definition: A dismissed substance that is transferred beyond the boundaries of a facility.

Stereotypes: «featureType»

Attribute: transferQuantity

Value type: Float

Definition: Quantity of the transferred dismissed substance.

Multiplicity: 1

Attribute: siteAddress

Value type: Addresses

Definition: Address of the site where the dismissed substance is transferred.

Description: SOURCE INSPIRE UML Consolidated Model

NOTE If the address is the same as the facility site, it means that the dismissed

substance is not transferred, but remains inside the facility.

Multiplicity: 1

Pollutant

Subtype of: SubstanceCodification

Definition: A substance or a group of substances that may be harmful to the environment or

to human health on account of its properties and of its introduction into the

environment, as defined by art. 2 of Regulation (EC) n. 166/2006.

Stereotypes: «featureType»

Attribute: E-PRTR_Number

Value type: string

Definition: Number indicating pollutant, useful for data communication, as defined in

Annex II of Regulation (EC) n. 166/2006.

Multiplicity: 1

Attribute: landReleaseThreshold

Value type: Float

Definition: Year threshold value for land release, as defined in Annex II of Regulation (EC)

n. 166/2006.

Multiplicity: 1

Attribute: airReleaseThreshold

Value type: Float

Definition: Year threshold value for air release, as defined in Annex II of Regulation (EC)

n. 166/2006.

Multiplicity: 1

Attribute: waterReleaseThreshold

Value type: Float



Definition: Year threshold value for water release, as defined in Annex II of Regulation

(EC) n. 166/2006.

Multiplicity: 1

Product

Definition: Classification of products by activity, in conformity to Regulation (EC) n.

451/20.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: CPA_Code

Value type: string

Definition: Number code of 6 characters classifying products, according to the Annex to

Regulation EC n. 451/2008.

Description: NOTE The code of 6 character classifies products (the last 2 characters),

associating them to the activity code as defined by Regulation (EC) n.

1893/2006 (the first 4 characters).

Multiplicity: 1

ProductCodification

Definition: Code table of products by activity, in conformity to Regulation (EC) n. 451/20.

Stereotypes: «featureType»

Attribute: CPA_Code

Value type: string

Definition: Number code of 6 characters classifying products, according to the Annex to

Regulation EC n. 451/2008.

Description: NOTE The code of 6 character classifies products (the last 2 characters),

associating them to the activity code as defined by Regulation (EC) n.

1893/2006 (the first 4 characters).

Multiplicity: 1

Attribute: productDescription

Value type: string

Definition: Decription of the product, according to the Annex to Regulation (EC) n.

451/2008.

Multiplicity: 1

Substance

Definition: Any chemical element and its compounds, with the exception of radioactive

substances, as defined by art. 2 of Regulation (EC) n. 166/2006.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.



Multiplicity: 1

Attribute: CAS_Number

Value type: CharacterString

Definition: Numerical identifier for chemical elements, compounds, polymers, biological

sequences, mixtures and alloys.

Description: SOURCE American Chemical Society – CAS Registry.

Multiplicity: 1

SubstanceCodification

Definition: Codification of substances, according to the CAS Registry.

Stereotypes: «featureType»

Attribute: CAS_Number

Value type: string

Definition: Numerical identifier for chemical elements, compounds, polymers, biological

sequences, mixtures and alloys, according to the CAS Registry.

Description: SOURCE American Chemical Society – CAS Registry.

Multiplicity: 1

Attribute: substanceName

Value type: string

Definition: Name of substance, according to the CAS Registry.

Description: SOURCE American Chemical Society – CAS Registry.

Multiplicity: 1

TypeOfFarming

Definition: Classification of the type of farming, according to Annex I of Regulation (EC)

n. 1242/2008.

Stereotypes: «featureType»

Attribute: classificationCode

Value type: string

Definition: 3-character code defining the particular type of farming, according Annex I of

Regulation (EC) n. 1242/2008 (third column of table A).

Multiplicity: 1

Attribute: particularTypeOfFarming

Value type: string

Definition: Description of the particular type of farming, according to Annex I of

Regulation (EC) n. 1242/2008 (third column of table A).

Multiplicity: 1

WasteProduct

Subtype of: OffsiteTransferredProduct

Definition: Any product corresponding to the definition of waste given by Article 3 of

Directive (EC) 98/2008.

Stereotypes: «featureType»

Attribute: disposalOperation



Value type: string

Definition: 2-character code describing the type of disposal operation according to Annex I

of Directive (EC) 98/2008.

Multiplicity: 0..1

Attribute: disposalQuantity

Value type: Float

Definition: Quantity of the disposed waste.

Multiplicity: 0..1

Attribute: recoveryOperation

Value type: string

Definition: 2-character code describing the type of recovery operation according to Annex

II of Directive (EC) 98/2008.

Multiplicity: 0..1

Attribute: recoveryQuantity

Value type: Float

Definition: Quantity of the recovered waste.

Multiplicity: 0..1

Attribute: hazardousWaste

Value type: string

Definition: 3-character code describing the type of waste having properties which render it

hazardous, according to Annex III of Directive (EC) 98/2008.

Multiplicity: 0..1

WasteSubstance

Subtype of: OffsiteTransferredSubstance,

Definition: Any substance corresponding to the definition of waste given by Article 3 of

Directive (EC) 98/2008.

Stereotypes: «featureType»

Attribute: disposalOperation

Value type: string

Definition: 2-character code identifying the type of disposal operation according to Annex I

of Directive (EC) 98/2008.

Multiplicity: 0..1

Attribute: disposalQuantity

Value type: Float

Definition: Quantity of the disposed waste.

Multiplicity: 0..1

Attribute: recoveryOperation

Value type: string

Definition: 2-character code identifying the type of recovery operation according to Annex

II of Directive (EC) 98/2008.

Multiplicity: 0..1

Attribute: recoveryQuantity

Value type: Float



Definition: Quantity of the recovered waste.

Multiplicity: 0..1

Attribute: hazardousWaste

Value type: string

Definition: 3-character code identifying the type of waste having properties which render it

hazardous, according to Annex III of Directive (EC) 98/2008.

Multiplicity: 0..1

WaterSource

Definition: The source of water useful for all kinds of activities of the facility site.

Stereotypes: «featureType»

Attribute: inspireId

Value type: Identifier

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: geometry

Value type: GM_Aggregate

Definition: The geometry of the water source.

Description: SOURCE INSPIRE UML Consolidated Model.

Multiplicity: 1

Attribute: waterQuantity

Value type: Float

Definition: The quantity of water given by the water source, in cubic metres per second.

Multiplicity: 1

Attribute: waterSourceType

Value type: <u>WaterSourceType</u>

Definition: Type of water source, according to Regulation (EC) n. 1200/2009.

Multiplicity: 1



Enumerations and code lists

AccidentalReleaseMeans

Definition: Indicates into which means the accidental release of a product or substance

takes place.

Stereotypes: «enumeration»

Value: Land
Value: Air
Value: Water

AgriculturalInstallationType

Definition: Type of agricultural installation, according to Regulation (EC) n. 1200/2009.

Stereotypes: «enumeration»

Value: ManureTank_Covered

 $Value: DungStorage_Covered$

Value: SlurryStorage_Covered

Value: ManureTank_Open

Value: DungStorage_Open

Value: SlurryStorage_Open

Value: AnimalHousing_Cattle

Value: AnimalHousing_Pigs

Value: AnimalHousing_LayingHens

Value: AnimalHousing_Other

Value: EnergyProductionFacility_Wind

Value: EnergyProductionFacility_Biomass

Value: EnergyProductionFacility_Solar

Value: EnergyProductionFacility_Hydro

Value: EnergyProductionFacility_Other

Value: Other

AquacultureInstallationType

Definition: Type of aquaculture installation.

Description: SOURCE SOSI Norwegian standard.

Stereotypes: «codeList»

Value: LandBasedFishFarm

Value: FloatingFishFarm

Value: BuoySuspensionFishFarm

AquaSpecies

Definition: Species bred in the aquaculture installation.

Description: SOURCE SOSI Norwegian standard.



«codeList» Stereotypes: Value: Perch **Value: Goldsinny Value: Mussels** Value: AnglerFish Value: Sprat Value: Natural/FlatOyster Value: Northern/SpottedWolfFish Value: NorthernPike Value: Seawolf/AtlanticWolfFish Value: IcelandScallop Value: QueenScallop **Value: Grayling** Value: SeaBass Value: HeartClam/SpinyCockle **Value: Lobster** Value: Haddock **Value: Scallops** Value: KingCrab Value: Crab Value: Crawfish Value: SeaUrchin **Value: OceanQuahog** Value: Halibut **Value: Burbot/Eelpout** Value: Salmonid Value: Wrasse Value: Hake Value: Mackerel **Value: Marine** Value: ClamMussel Value: HorseMussel Value: Turbot **Value: Shrimp** Value: Lumpfish Value: Plaice Value: Char Value: Pollock/Saithe **Value: Herring Value: Shells Value: Flounder**



Value: Snail
Value: WolfFish
Value: Tench
Value: Cod
Value: Sole
Value: Eel
Value: Trout
Value: Oysters

CalculationType

Definition: Type of calculation for dismissed products and substances..

Stereotypes: «enumeration»

Value: Measured
Value: Calculated
Value: Estimated

EasementType

Definition: Classification of the type of easement connected to the protection of areas

around public utilities or to the public use of certain resources.

Description: SOURCE Plan4all "Area management/restriction/regulation zones and reporting

units" data model.

Stereotypes: «enumeration»

Value: UtilityEasement

Definition: Easement attached to an irrigation element.

Description: EXAMPLE Easement attached to water canals allowing for their maintenance.

Value: RightOfWay

Definition: Right of way for the exploitation of a water source or an irrigation element.

Description: NOTE If the water source or the irrigation element is outside the holding, the

right of way will allow the owner to have access to it. If the water source or the irrigation element is inside the holding, other owners will be allowed to have

access in order to exploit it.

IrrigationElementType

Definition: Type of irrigation device.

Stereotypes: «codeList»

Value: UndergroundWaterPipe

Value: Canal

Value: WaterPump

IrrigationMethod

Definition: Method of irrigation, according to FAO.

Description: SOURCE FAO Corporate Document Repository.

Stereotypes: «enumeration»



Value: FurrowIrrigation

Value: BasinIrrigation

Value: SprinklerIrrigation

Value: DripIrrigation

Value: BorderIrrigation

StatusValue

Definition: Indicates whether a facility site is operating or planned.

Stereotypes: «enumeration»

Value: Operating

Value: Planned

WaterSourceType

Definition: Type of water source, according to Regulation (EC) n. 1200/2009.
Stereotypes: «enumeration»

Value: OnFarmGroundWater

Value: OnFarmPondDam

Value: OffFarmLakeRiverWaterCourse

Value: OffFarmWaterSupplyNetwork

Value: Other

5.5.4 Area Management/Restriction/Regulation Zones and Reporting Units

Feature Catalogue Metadata

Feature catalogue name	Plan4all feature catalogue Area Management/Restriction/Regulation Zones and Reporting Units
Scope	Are Management/Restriction/Regulation Zones and Reporting Units
Version number	V8
Version date	2010-10-11
Definition source	Plan4all data model Area Management/Restriction/Regulation Zones and Reporting Units

AbstractClass

Definition: featureType with attributes that are the same for all other theme related featureTypes

Attributes:

id_object: stringsector: stringsubSector: string



managementActivityType: string

yearOfVerification: float
 validFrom: DateTime
 validTo: DateTime[0..1]
 geometry: polygon
 Country: countryCode

- generalLandUseType: generalLandUseType

Other comments:

- countryCode: ISO 3166-1 Alpha-2 Code

- generalLandUseType: import from Plan4all LandUse Theme

Type: ResponsibleOrganization

Definition: featureType with attributes that are the same for all other theme related featureTypes

Attributes:

organisationName: string

- organisationAddress [1..*]: string

Multiplicity: 1

Other comments: refers to INSPIRE Theme Addresses

Type: address

Definition: address of a site or organization

DataType: Type

Other comments: Relation to Inspire theme Adresses

Multiplicity: 1..*

Enumeration: QuantityUnit

Attributes:

- Meter
- gram
- squareMeter

_ litor

Enumeration: generalLandUseType

Attributes:

- residential
- industrialCommercial
- serviceOfGeneralInterst
- green
- areasOfNaturalInterest
- agriculture
- water
- roadTrafficInfrastructure
- railwayTrafficInfrastructure
- otherTrafficInfrastructure
- specialDevelopmentZone
- mining
- quarrying



technicalInfrastructure

- other

Other comments: Import from Plan4all Land Use Data Model

DUMPING SITES

Class: dumpingSites

Definition: areas subject to dumping of waste of different kinds

Attributes:

- dumpingSiteAddress: Address (1..*)

featureClass: dumpingSiteforInertWaste

Definition: Inert waste is waste which is neither chemically or biologically reactive and will not decompose. Examples of this are sand, drywall, and concrete.

Attributes:

- substanceName: string

- disposalQuantityUnit: quantityUnit

- disposalQuantity: float

- recoveryQuantityUnit: quantityUnit

recoveryQuantity: float

Additional information: Inert waste as defined by 2009/359/EC.

feature Class: dumping Sites For Hazardous Waste

Definition: hazardous waste has one of the following factors: ignitability (i. e. flammable), reactivity, corrosivity, toxicity; defined in the European Waste Catalogue (EWC) 2000/532/EC.

Attributes:

EWC_number: string

- disposalQuantityUnit: quantityUnit

- disposalQuantity: float

recoveryQuantityUnit: quantityUnit

recoveryQuantity: float

featureClass: dumpingSiteForNonHazardousWaste

Definition: Non-hazardous waste is waste which does NOT feature on the list of hazardous waste in the European Waste Catalogue (EWC).

Attributes:

substanceName: string

- disposalQuantityUnit: quantityUnit

- disposalQuantity: float

recoveryQuantityUnit: quantityUnit

- recoveryQuantity: float

Type: legalReferenceCountry

Definition: national/regional/local regulations for the dumping of waste in one country (laws, other legally binding regulations)



Attributes:

country: countryCode

- levelOfCompetence: levelOfCompetence

- countryLaw: string

Multiplicity: 1..*

DRINKING WATER SOURCES

Class: drinkingWaterSource

Definition: source of water that can be drank

Attributes:

drinkingWaterSourceType: drinkingWaterSourceType

- drinkingWaterQuantitySummerMIN: float

- drinkingWaterQuantitySummerMAX: float

 $- \quad drinking Water Quantity Winter MIN: float$

- drinkingWaterQuantityWinterMAX: float

- drinkingWaterQuantityUnit: quantityUnit

- drinkingWaterTemperature_CelsiusDegrees : float

- drinkingWaterExtraction: drinkingWaterExtraction

Other comments:

 Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption

Enumeration: QuantityUnit

Attributes:

- meter
- gram
- squareMeter

- liter

Enumeration: drinkingWaterExtraction

- Pump
- Pipe
- NaturalSource
- otherExtraction

Enumeration: levelOfCompetence

- nationalLevel
- stateLevel
- regionalLevel
- provincialLevel
- localLevel

Enumeration: drinkingWaterSourceType

- fountain
- springWater
- surfaceWater
- Cistern



Feature Type: restricted Area Around Drinking Water Sources

Multiplicity: 1

Type: restrictionZone

- restrictionZoneType: restrictionZoneType

Multiplicity: 1..*

Type: restriction

- restrictedImpact: restrictedImpact

Multiplicity: 1..*

Enumeration: restrictionZoneType

Definition: Types of restriction zones (Area)

- fountainProtectionZone
- springWaterProtectionZone
- extractingZone
- protectionZone
- sanctuary
- 60DaysStreamToExtractingZone
- 1DayStreamToExtractingZone
- otherRestrictionZoneType

CodeList: RestrictedImpact

Definition: Types of restrictions (Activities)

- dangerous impact of all kinds
- impact of pathogen seed crystals and viruses
- chemical contamination
- impact of persistent chemical substances
- other restricted impact

NITRATE VULNERABLE ZONES

Class: nitrateVulnerableZones

Definition: Designation for areas of land that drain into nitrate polluted waters, or waters which could become polluted by nitrates

Attributes:

waterBodiesWithNitrate: String

- nitratePercentage: Float



- surfaceWatersLastMonitoring: DateTime

- LastMonitoring: DateTime

- pollutedWatersLastInventory: DateTime

- pollutionRiskWatersLastInventory: DateTime

- goodAgriculturalPracticeIntroduction: DateTime

zoneType: zoneType

Other comments:

Fao guidelines goodAgriculturalPractice

Enumeration: zoneType

Definition: Types of zones

- designatedZones
- zonesDraftedByMemberStates
- potentialVulnerableZones

REGULATED FAIRWAYS AT SEA OR LARGE INLAND WATER

Class: regulatedFairwaysAtSeaOrLargeInlandWaters

Definition: helps determine where particular vessels are allowed to travel

Attributes:

Waterway : String

waterwayInformation : waterwayInformation

waterTransportNetworks: waterTransportNetworks

Other comments:

- traffic signs (Reference to Code Européen des Voies de la Navigation Intérieure)
- Directive 2005/44/EC harmonised river information services
- Import from INSPIRE Theme Transport Networks: WaterTransportNetworks

Type: restrictionTime

vehicleType:StringstartTime : time

- endTime: time

Multiplicity: 1..*

Enumeration: waterwayInformation

- motorVesselAndBarges
- pushedConvoys
- safteyClearensBetweenVesselsAndBridges
- dimensionOfLocks
- waterLevel
- trafficSigns
- RadioSignals
- other

AREAS FOR THE DUMPING OF WASTE AT SEA



Class: areasForTheDumpingOfWasteAtSea

Definition: disposal of (liquid) waste in the ocean, OSPAR commission

Attributes:

Material: material

disposalQuantityUnit: quantityUnit

disposalQuantity: float

category Of Dumping Ground: category Of Dumping Ground

restriction: restriction

Other comments:

Directive 2006/12/EC of the European Parliament

OSPAR Reporting Units

Type: seaRegions

Other comments: Relevance to Inspire theme seaRegions

CodeList: categoryOfDumpingGround

general dumping ground

- chemical waste dumping ground
- nuclear waste dumping ground
- explosives dumping ground
- spoil ground
- shipwreck Vessel dumping ground
- oil installations
- ballast water
- otherDumpingGround

Enumeration: Material

- dregdedMaterial soilAndRock
- inertMaterial
- fishWaste
- liquidIndustrialWaste
- solidIndustrialWaste
- sewageSludge
- shipsWithMetalHulls
- otherShips
- ammunition
- otherMaterial

CodeList: restriction

anchoring forbidden

anchoring restricted

fishing forbidden

fishing restricted

trawling forbidden trawling restricted

area to which access is forbidden

restrictions on access

dredging/sea floor scraping forbidden

dredging forbidden



diving prohibited
restrictions on diving
no wake
area which should be avoided
construction prohibited
reduced speed
otherRestriction

EASEMENT AREAS

Class: A reas With Right To Use Property Without Possessment

Definition: Areas with permission to be used without posessment

Attributes:

easementType : easementType

Other comments:

SOSI Norway

CodeList: easementType

- Coniferous forest rights
- Grazing rights
- Fishing rights
- Deciduous forest rights
- Haying rights
- Mountain farm rights
- Right of way
- Building ban
- Leased-out area
- Common area
- Breakwater property rights
- Mooring
- Right to illuminate
- Aviation right
- Railroad easement
- Utility easement
- Sidewalk easement
- View easement
- Driveway easement
- Beach access property
- Dead end easement
- Recreational easement
- Historic preservation easement.

COASTAL ZONES MANAGAMENT AREAS

Class: coastalZoneManagementAreas

Definition: process for the management of the coast

Attributes:



Other comments:

- integrated coastal zone management

- Water framework directive: Directive 2000/60/EC

- SOSI Norway

- Sea Region: relation to Inspire theme

Type: harbourDistrict

Attributes:

NavigationAidType: navigationAidType

portIdentification : stringharbourStatus : string

portDistrictAdministration : address

Multiplicity: 1..*

Other comments: see INSPIRE theme Addresses

Type: BoundaryBetweenNationsSea

Attributes:

leftCountryCode : countryCoderightCountryCode : countryCode

Multiplicity: 1

Type: fisheryZone

Attributes:

fisheryQuantity: float

fisheryQuantityUnit : quantityUnitfisheryProtection : fisheryProtection

Multiplicity: 1...*

enumeration: NavigationAidType

Attributes:

GPS

- Man

Lighthouse

- Other

enumeration: fisheryProtection

Attributes:

limitedFishingRights

- otherLimitedRights

RIVER BASIN DISTRICT

Class: riverBasinDistricts

Definition: The area of land from which all (surface) run-off flows through a sequence of streams, rivers and, possibly, lakes into the sea at a single river mouth, estuary or delta.



Attributes:

- humanConstructions : humanConstruction

- precipitationQuantity: string

- precipitationQuantityUnit : quantityUnit

- TranspirationQuantity: string

- TranspirationQuantityUnit : quantityUnit

BedrockQuantity: string

- BedrockQuantityUnit : quantityUnit

- physicalWaters: physicalWaters

Other comments:

- Import from INSPIRE Theme Hydrography: physicalWaters (riverBasin)

Type: waterBodies

Attributes:

waterBodyName : geographicNames

tributaries : stringestuary : string

Multiplicity: 1..*

Other comments:

Water framework directive: Directive 2000/60/EC Import from INSPIRE Theme GeographicNames

enumeration: humanConstruction

Attributes:

- bridge
- canal
- dam
- barrage
- lock
- boatlift
- HydroElectricPowerPlant
- otherHumanConstruction

PROSPECTING AND MINING PERMIT AREAS

Class: prospectingAndMiningPermitAreas

Definition: areas with permit to search and mine

Attributes:

Mineral: String

- DeadMaterialPercentage: Float

- excavationMeans: escavationMeans

foreseenQuantity: float

- foreseenQuantityUnit: quantityUnit

Other comments:

- control of major-accident hazards involving dangerous substances Directive 2003/105/EC
- management of waste from extractive industries Directive 2006/21/EC
- according to Strunz featureTypeification



enumeration: excavationMeans

- surfaceMining

subSufaceMining

- Pumping

- Other

NOISE RESTRICTION ZONES

Class: noiseRestrictionZones

Definition: area subject to noise restrictions

Attributes:

noiseType : noiseType

- maximumAllowedSoundLevel dB:float

Other comments:

- Environmental noise restriction directive 2002/49/EC

Type: restrictionTime

startTime : timeendTime : timeweekDay : weekDay

Multiplicity: 1..*

enumeration: noiseType

- airportNoise

- streetNoise

railwayNoise

- industryNoise

sportNoise

- leisureNoise

neighborhoodNoise

otherNoise

Multiplicity: 1..*

enumeration: weekDay

- Monday

- Tuesday

- Wednesday

- Thursday

- Friday

- Saturday

- sunday

Multiplicity: 1..*



Class: otherManagementRegulationRestrictionAreas

Definition: Any management/regulation/restriction Area or Reporting Unit.

Attributes:

regulatedArea: regulatedArea
 restriction: restriction [0..*]
 quantityMIN: float [0..1]
 quantityMAX: float [0..1]

- quantityUnit: quantityUnit [0..1]

- siteName: INSPIREGeographicNames [0..1]

Type: legalReference

legalDocument: stringcountry: countryCode

- levelOfCompetence: levelOfCompetence

legalFoudationDate: DateTime

Multiplicity: 0..*

enumeration: regulatedArea

schoolDistricts

- healthCareManagementRegions
- defenceEnrolementRegions
- fireFighterManagementRegions
- policeResponsibilityRegions
- rescueOperationRegions
- militaryArea
- sanctuaryForSilenceAndNature
- retreatArea
- otherArea

Multiplicity: 1

enumeration: restriction

- anchoringRestricted
- fishingForbidden
- fishingRestricted
- trawlingForbidden
- trawlingRestricted
- accessForbidden
- accessRestricted
- seaFloorScrapingForbidden
- divingProhibited
- divingRestricted
- areaToAvoid
- constructionProhibited
- reducedSpeed
- reducedNoise
- motorizedVehiclesProhibited
- otherRestriction

Multiplicity: 0..*



5.5.5 Production and Industrial Facilities

Class: ProductionIndustrialFacilities. Industrial Area

Definition: Geographical location of one or more Facility sites

Attributes:

inspireId: Identifiercountry: CountryCode

- location: AdministrativeUnit

validFrom: DateTimevalidTo: DateTime[0..1]

- vand 10: Date 11me[0..1]
- status: Status Value

- geometry: GM_MultiSurface

Class: ProductionIndustrialFacilities.Facility Site

Definition: Geographical location of one or more installations operated by the same natural or legal person. (from Regulation EC 166/2006)

Attributes:

- inspireId: Identifier

- headGroupCompanyName: String

- facilityName: String
- address: Addresses
- validFrom: DateTime
- validTo: DateTime[0..1]
- status: StatusValue

geometry: GM_MultiSurface

Association role: inside

Value Type: Industrial Area

Multiplicity: 1..*



Class: ProductionIndustrialFacilities.Installation

Definition: Means a stationary technical unit where one or more activities listed in Annex I of Regulation (EC) No 1893/2006 are carried out.

Attributes:

- inspireId: Identifier

• installationName: String

• geometry: GM_Surface

Association role: inside

Value Type: FacilitySite

Multiplicity: 1..1

Association role: carrying out

Value Type: Activity Multiplicity: 1..*

Class: ProductionIndustrialFacilities.Activity

Definition: Activity based on annex I of regulation (EC) n. 1893/2006.

Attributes:

• NACE_code_rev2: String

(number code of 4 characters grouping the same productive

processes - Annex I of Regulation (EC) n. 1893/2006)

Association role: Using/Dismissing

Value Type: Used/Dismissed Substance

Multiplicity: 0..*

Association role: Dismissing

Value Type: Dismissed Product

Multiplicity: 0..*

Association role: input

Value Type: Product
Multiplicity: 1..*

Association role: output

Value Type: Product Multiplicity: 1..1



Class: ProductionIndustrialFacilities.Product

Definition: Classification of products by activity (CPA in conformity to Regulation EC n. 451/20).

Attributes:

• CPAcode: String

(number code of 6 character classifing products –the last 2 characters –associating to activity – the first 4 character -

(Annex to Regulation EC n. 451/2008)

Association role: input

Value Type: Activity Multiplicity: 1..*

Association role: output

Value Type: Activity Multiplicity: 1..*

Class: ProductionIndustrialFacilities.Activity Codification

Definition: Code table of activity based on annex I of regulation (EC) n. 1893/2006.

Attributes

• NACE_code_rev2: String

(number code of 4 characters grouping the same productive

processes - Annex I of Regulation (EC) n. 1893/2006)

- activityDescription: String

(description of activity as reported on Annex I of Regulation (EC) n. 1893/2006)

Class: ProductionIndustrialFacilities.Product Codification

Definition: Code table of products by activity (in conformity to Regulation EC n. 451/20).

Attributes:

• CPAcode: String

(number code of 6 character classifing products –the last 2

characters -associating to activity - the first 4 character -

(Annex to Regulation EC n. 451/2008)

- productDescription: String

(Annex to Regulation EC n. 451/2008)



Class: ProductionIndustrialFacilities.Substance

Definition: means any chemical element and its compounds, with the exception of radioactive substances; (definition art.2 Regulation n. 166/2006 E-PRTR).

Attributes:

Substance_inspireId: IdentifiersubstanceName: StringCAS_number: String

(number identification indicating a unique chemical

compound)

Class: ProductionIndustrialFacilities. Hazardous Substance

Definition: A substance or a mixture fulfilling the criteria relating to physical hazards, health hazards or environmental hazards, laid down in Parts 2 to 5 of Annex I of Regulation EC n. 1272/2008

Attributes:

• id_hazard: String

(Table 3.1 of Regulation EC n. 1272/2008)

substanceName: String

(Table 3.1 of Regulation EC n. 1272/2008)

• EC_number: String

(Table 3.1 of Regulation EC n. 1272/2008)

hazardClassCategoryCode: String

(Table 3.1 of Regulation EC n. 1272/2008)



Class: ProductionIndustrialFacilities.Pollutant

Subtype of: Substance

Definition: means a substance or a group of substances that may be harmful to the environment or to human health on account of its properties and of its introduction into the environment (definition art.2 Regulation n. 166/2006 E-PRTR)

Attributes:

• E_PRTR_number: Integer [1..91]

(number indicating pollutant useful for data communication

based on Annex II of E-PRTR Regulation)

• airReleaseThreshold: Float

(year threshold value for air release - Annex II of E-PRTR

Regulation)

waterReleaseThreshold: Float

(year threshold value for water release - Annex II of E-

PRTR Regulation)

landReleaseThreshold: Float

(year threshold value for land release - Annex II of E-PRTR

Regulation)

Class: ProductionIndustrialFacilities.Used/Dismissed Substance

Definition: Means the way in which an activity can use/dismiss a substance. Specialisation of type "subset".

If Used only the parent is instanciated

If Dismissed thwe child is instanciated

Attributes:

totalAmount: FloatSubstance_inspireId dentifier



Abstract Class: ProductionIndustrialFacilities.Dismissed Substance

Subtype of: Used/Dismissed Substance

Definition: Means the way in which an activity can dismiss a substance.

Attributes:

• calculationType: CalculationType

(if quantity of pollutant released is measured, calculated or

estimated)

• totalAmount: Float

(total amount of pollutant released by all activity subjects included the accidental releases and release from diffused

sources. Quantity is expressed in kg/year).

Class: ProductionIndustrialFacilities.Offsite Transfer Substance

Subtype of: Dismissing Substance

Definition: means the movement beyond the boundaries of a facility of waste destined for recovery or disposal and of pollutants in waste water destined for waste-water treatment (definition article .2 of Regulation (EC) No. 166/2006 E-PRTR)

Attributes:

transferType: TransferTypetransferMeans: TransferMeans

Class: ProductionIndustrialFacilities.Waste Subtance

Subtype of: Offsite Transfer **Substance**

Definition: Means any substance as defined in Article 1(a) of Council Directive 75/442/EEC of 15 July 1975 on waste (definition article 2 of regulation No. 166/2006 E-PRTR).

Attributes:

recoveryQuantity: Float
 disposalQuantity: Float
 siteAddress: addressed



Class: ProductionIndustrialFacilities.Release

Subtype of: Dismissing Substance

Definition: means any introduction of pollutants into the environment as a result of any human activity, whether deliberate or accidental, routine or non-routine, including spilling, emitting, discharging, injecting, disposing or dumping, or through sewer systems without final waste-water treatment. (definition article .2 of regulation No. 166/2006 E-PRTR)

Attributes:

• accidentalQuantity: Float

(Quantity of pollutant released accidentally. Quantity is

expressed in kg/year).

releaseMeans: releaseMeans

abstract AssociationClass: ProductionIndustrialFacilities.Dismissed Product

Definition: Means the way in which an activity can dismiss a product

Attributes:

• calculationType: CalculationType

(if quantity of pollutant released is measured, calculated or

estimated)

• totalAmount: Float

(total amount of product released by all activity).

Class: ProductionIndustrialFacilities.Offsite Transfer Product

Subtype of: Dismissing product

Definition: means the movement beyond the boundaries of a facility of waste destined for recovery or disposal and of product in waste water destined for waste-water treatment

Attributes:

transferType: TransferTypetransferMeans: TransferMeans



Class: ProductionIndustrialFacilities.Waste Product

Subtype of: Offsite Transfer Product

Definition: Means any object as defined in Article 1(a) of Council Directive 75/442/EEC of 15 July 1975 on waste (definition article 2 of regulation No. 166/2006 E-PRTR).

Attributes:

recoveryQuantity: Float
 disposalQuantity: Float
 siteAddress: addressed

5.5.6 Utility and Government services

abstract Class: ControlledWasteTreatmentFacility

Definition: Official or regulated facility for waste treatment and / or storage at land (i.e.: landfill, incinerator, etc.).

Real

Real

Attributes:

idWasteTreatmentFacility: Integer facilityName: String address: String geometry: GM_Polygon validFrom: DateTime validTo: DateTime mainKindOfWaste: WasteType collectionArea: AreaType annualHandlingNonHazardousWastesMass: Real annualHandlingNonHazardousWastesVolume: Real storageCapacityNonHazardousWastesMass: Real storageCapacityNonHazardousWastesVolume: Real annualHandlingHazardousWastesMass: Real annualHandlingHazardousWastesVolume: Real

storageCapacityHazardousWastesMass:storageCapacityHazardousWastesVolume:

Association role:

Value Type: WasteTreatmentAuthorized

Multiplicity: 0...*

Class: WasteTreatmentAuthorized

Definition: Facility treatment authorized

Attributes:

idAuthorizedTreatment: IntegervalidFrom: DateTime



validTo: DateTime
 authorizedQuantityMass: Real
 authorizedQuantityVolume: Real

Association role: WastesAuthorized

Value Type: Waste Multiplicity: 1...*

Association role: RecoveryOperationAuthorized

Value Type: RecoveryOperation

Multiplicity: 1...*

Association role: DisposalOperationAuthorized

Value Type: DisposalOperation

Multiplicity: 1...*



Class: Waste

Definition: Code list of wastes in conformity of 2000/532/EC annex.

Attributes:

code: Stringdescription: String

Association role: WastesAuthorized

Value Type: WasteTreatmentAuthorized

Multiplicity: 0...*

Class: RecoveryOperation

Definition: Code list of recovery operations in conformity of 2008/98/EC annex II.

Attributes:

code:description:String

Association role: RecoveryOperationAuthorized Value Type: WasteTreatmentAuthorized

Multiplicity: 0...*

Class: DisposalOperation

Definition: Code list of disposal operations in conformity of 2008/98/EC annex I.

Attributes:

code:description:String

Association role: DisposalOperationAuthorized Value Type: WasteTreatmentAuthorized

Multiplicity: 0...*

AssociationClass: WastesAuthorized

Definition: Wastes authorized for treatment.

Attributes: -

AssociationClass: RecoveryOperationAuthorized

Definition: Authorized recovery treatments.

Attributes: -

AssociationClass: DisposalOperationAuthorized

Definition: Authorized disposal treatments.

Attributes: -



Class: Landfill

Definition: Site for the disposal of waste materials by burial.

Subtype of: ControlledWasteTreatmentFacility

Attributes:

kindOfLandfillFacility: LandfillType
 maxStorageVolume: Real
 totalSurface: Real
 disposalSurface: Real

Class: Incinerator

Definition: Facility for the combustion (or other high temperature treatment) of waste materials.

Subtype of: ControlledWasteTreatmentFacility

Attributes:

totalRatedMassCapacity: Real
 totalRatedHeatLoad: Real
 ratedElectricalPower: Real

kindOfEnergyRecovery: EnergyRecoveryType

rateOfElectricEnergyRecovered: Real rateOfThermalEnergyRecovered: Real

Class: RefuseMaterialsStorageAndRecoveryFacility

Definition: Facility that receives, separates, treats and prepares recyclable materials from wastes; sometimes combining a sorting facility with a biological treatment of organic materials (such as composting).

Subtype of: ControlledWasteTreatmentFacility

Attributes:

4 kindOfMRF: String 5 storageSurface: Real

6 storageVolume: Real

7 ratedAnnualTreatmentCapacity: Real 8 ratedAnnualRDFProduction: Real 9 ratedAnnualGlassRecovery: Real

10 ratedAnnualFerrousMaterialRecovery: Real11 ratedAnnualPaperRecovery: Real

12 ratedAnnualStabilizedOrganicMaterialRecovery: Real

ratedAnnualBiogasProduction:
 ratedAnnualEnergyProduction:
 ratedAnnualRefuseMaterialProduction:
 Real
 Real



Class: WastewaterTreatmentFacility

Definition: Facility for removing contaminants from wastewater, liquid wastes or household sewage. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants.

Subtype of: ControlledWasteTreatmentFacility

Attributes:

- kindOfWastewaterTreatmentFacility: WastewaterTreatmentFacilityType

ratedTreatmentCapacity2:
 ratedEquivalentPersonsCapacity
 averageInfluentFlow:
 averageBOD5in
 averageBOD5out
 Real
 Real

nutrientsRemoval

processFlowDescription:
 ratedAnnualSludgeProduction:
 ratedAnnualBiogasProduction:
 Real

Enumeration: WasteType

Definition: Waste types.

Literals:

Hazardous waste

Non hazardous waste

- Radioactive waste

Enumeration: AreaType

Definition: Collection area types.

Literals:

- National
- International
- Regional
- Interregional
- Municipal
- Intermunicipal

Enumeration: LandfillType

Definition: Landfill types.

Literals:

- Landfill for hazardous waste

- Landfill for non hazardous waste

Landfill for inert waste.

Enumeration: EnergyRecoveryType

Definition: Forms of energy recovered.

Literals:

- Electric energy
- Thermal energy
- Electric and thermal energy (cogeneration)

² Plant design flow rate.



•			

Enumeration: WastewaterTreatmentFacilityType

Definition: Wastewater treatment facility types.

Literals:

- Hazardous liquid wastes treatment plant
- Sewage treatment plant
- Industrial wastewaters treatment plant
- Agricultural or zootechnical wastewaters treatment plant
- Radioactive wastewater treatment plant

5.5.7 Natural Risk Zones

Complete data model and feature catalogue is in the Annex I of this document.



6 Annex I. Natural Risk Zones

Model Detail

This document provides a complete overview of all element details. For simpler and more focused reports, simply copy this initial template and turn off the sections not required.

<Pkg.Name>

Type: Package < Pkg. Stereotype>

Status: <Pkg.Status>. Version <Pkg.Version>. Phase <Pkg.Phase>.

Package: <Pkg.ParentPackage>

Detail: Created on <Pkg.DateCreatedShort>. Last modified on <Pkg.DateModifiedShort>

GUID: <Pkg.GUID>

<Pkg.Notes>

<{Pkg.Name}>

Type: Package < Pkg. Stereotype>

Status: <Pkg.Status>. Version <Pkg.Version>. Phase <Pkg.Phase>.

Package: <Pkg.ParentPackage>

Detail: Created on <Pkg.DateCreatedShort>. Last modified on <Pkg.DateModifiedShort>

GUID: <Pkg.GUID>

<Pkg.Notes>

 $\underline{<\! Diagram.Name \!\!>} - (<\! Diagram.Type \!\!> diagram)$

Last Modified: <Diagram.DateModifiedShort>

Version: <Diagram.Version>. Locked: <Diagram.IsLocked>

GUID: <Diagram.GUID>

<Diagram.Notes>



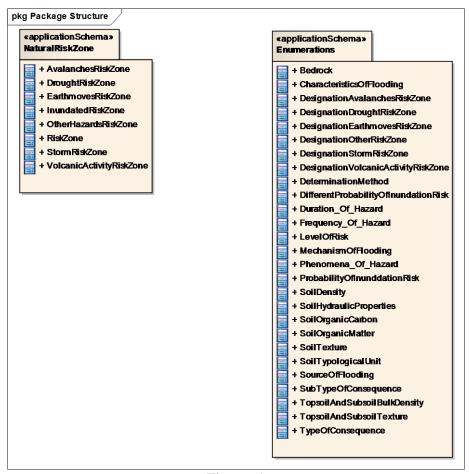


Figure: 1

Type: <<u>Element.Type> <Element.BaseClasses></u>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>

<{Pkg.Name}>

Type: Package < Pkg. Stereotype>

Status: <Pkg.Status>. Version <Pkg.Version>. Phase <Pkg.Phase>.

Package: <Pkg.ParentPackage>

Detail: Created on <Pkg.DateCreatedShort>. Last modified on <Pkg.DateModifiedShort>

GUID: <Pkg.GUID>

<Pkg.Notes>

<Diagram.Name> - (<Diagram.Type> diagram)

Created By: <Diagram.Author> on <Diagram.DateCreatedShort>

Last Modified: <Diagram.DateModifiedShort>



Version: <Diagram.Version>. Locked: <Diagram.IsLocked> GUID: <Diagram.GUID> <Diagram.Notes> class Enumerations «enumeratio. «enumeration» «enumeration» «enumeration» LevelOfRisk Frequency_Of_Hazard TypeOfConsequence SubTypeOfConsequence HumanHealthSocial HumanHealth High Slow Medium Unnoticed Environment Community Permanent CulturalHeritage WaterbodyStatus Low ProtectedAreas Economic PollutionSources CulturalAssets «enumeration» «enumeration» «enumeration» Property DeterminationMethod Phenomena_Of_Hazard Duration_Of_Hazard Infrastructure RuralLandUse Observation ShortAppearance Single **EconomicActivity** LongTimeAppearance Assessment Sequential Other Calculation CombinedWithOther PermanentlyAppearance Modelling «enumeration» «enumeration» «enumeration» ProbabilityOflnunddationRisk CharacteristicsOfFlooding SourceOfFlooding FlashFlood FloodsWithALowProbability Fluvial FloodsWithAMediumProbability_=_100Years DebrisFlow Pluvial HighVelocityFlow Groundwater FloodsWithAHighProbability DeepFlood SeaWater Other ArtificialWaterBearingInfrastructure NoDataAvailable NoDataAvailable «enumeration» «enumeration» **DesignationAvalanchesRiskZone** MechanismOfFlooding NaturalExceedance Rockslides DefenceExceedance RockFalls DefenceOrInfrastructuralFailure LandSlides BlockageRestriction DebrisAvalanches Other IceAvalanches NoDataAvailable SnowAvalanches MudFloods «enumeration» «enumeration» «enumeration» DesignationOtherRiskZone **DesignationVolcanicActivityRiskZone** DesignationStormRiskZone WildlandFires VolcanicEmissions Blizzard Permafrost VolcanicAcitvity Thunder TemperatureExtremes TropicalCyclones **StormSurges** DustStorm SandStorm «enumeration» HailStorm DesignationDroughtRiskZone DesignationEarthmovesRiskZone RainStorm Desertification WindStorm OtherStorm OrganicMatterDecline Earthquakes Salinisation GeologicalFault Compaction ErosionByWater **ErosionByWind** «enumeration» «enumeration» «enumeration» «enumeration» SoilHydraulicProperties SoilTypologicalUnit SoilOrganicCarbon «enumeration» «enumeration» «enumeration» «enumeration» SoilTexture Bedrock TopsoilAndSubsoilTexture SoilDensity «enumeration» «enumeration» TopsoilAndSubsoilBulkDensity DifferentProbabilityOfInundationRisk

Figure: 2



Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	Att.Notes>A flood that rises and falls	Default: <att.default></att.default>
<att.type></att.type>	quite rapidly with little or no advance	
<att.scope></att.scope>	warning, usually the result of intense	
<att.static></att.static>	rainfall over a relatively small area	
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>	Att.Notes/A flood conveying a high	Default: <att.default></att.default>
<att.type></att.type>	degree of debris.	
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		



<att.name> <att.type> <att.scope> <att.static></att.static></att.scope></att.type></att.name>	<att.notes>A flood where the floodwaters are flowing at a high velocity.</att.notes>	Default: <att.default></att.default>
<att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const>		
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>A flood where the floodwaters are of significant depth.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Other characteristics, or no special characteristics</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>No data available on the characteristics of flooding.</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>



<Element.Notes>an enumeration type specifying a set of avalanches categories

Custom Properties

 $\bullet < CustomProperty.Name > \ = < CustomProperty.Value >$

<u>Attributes</u>

Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Falls are abrupt movements of masses of geologic materials, such as rocks and boulders, that become detached from steep slopes or cliffs. Separation occurs along discontinuities such as fractures, joints, and bedding planes, and movement occurs by free-fall, bouncing, and rolling. Falls are strongly influenced by gravity, mechanical weathering, and the presence of interstitial water.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to the proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for the protection of soil and amending Directive 2004/35/EC, SECTION ONE IDENTIFICATION OF RISK AREAS, Article 6, No 1 (f), landslides brought about by the downslope, moderately rapid to rapid movement of masses of soil and rock material</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>



<att.name></att.name>	<att.notes>A ice-related landslide</att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>	<att.notes>A snow-related landslide</att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>		

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

<Element.Notes>an enumeration type specifying a set of drought categories



Attribute Attribute	Notes	Constraints and tags
<att.name></att.name>	<att.notes>Desertification is the</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	degradation of land in arid and dry sub-	
<att.scope></att.scope>	humid areas	
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
71		
<att.name></att.name>	Att.Notes/according to the proposal	Default: <att.default></att.default>
<att.type></att.type>	for a DIRECTIVE OF THE	
<att.scope></att.scope>	EUROPEAN PARLIAMENT AND OF	
<att.static></att.static>	THE COUNCIL establishing a	
<att.const></att.const>	framework for the protection of soil	
<att.collection></att.collection>	and amending Directive 2004/35/EC,	
<att.multiplicity></att.multiplicity>	SECTION ONE IDENTIFICATION	
<att.stereotype></att.stereotype>	OF RISK AREAS, Article 6, No 1 (b),	
71	organic matter decline brought about	
	by a steady downward trend in the	
	organic fraction of the soil, excluding	
	undecayed plant and animal residues,	
	their partial decomposition products,	
	and the soil biomass	
<att.name></att.name>	Att.Notes>according to the proposal	Default: <att.default></att.default>
<att.type></att.type>	for a DIRECTIVE OF THE	
<att.scope></att.scope>	EUROPEAN PARLIAMENT AND OF	
<att.static></att.static>	THE COUNCIL establishing a	
<att.const></att.const>	framework for the protection of soil	
<att.collection></att.collection>	and amending Directive 2004/35/EC,	
<att.multiplicity></att.multiplicity>	SECTION ONE IDENTIFICATION	
<att.stereotype></att.stereotype>	OF RISK AREAS, Article 6, No 1 (d),	
	salinisation through the accumulation	
	in soil of soluble salts	
<att.name></att.name>	<att.notes>according to the proposal</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	for a DIRECTIVE OF THE	
<att.scope></att.scope>	EUROPEAN PARLIAMENT AND OF	
<att.static></att.static>	THE COUNCIL establishing a	
<att.const></att.const>	framework for the protection of soil	
<att.collection></att.collection>	and amending Directive 2004/35/EC,	
<att.multiplicity></att.multiplicity>	SECTION ONE IDENTIFICATION	
<att.stereotype></att.stereotype>	OF RISK AREAS, Article 6, No 1 (c),	
	compaction through an increase in bulk	
	density and a decrease in soil porosity	



<att.name></att.name>	<att.notes>according to the proposal</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	for a DIRECTIVE OF THE	
<att.scope></att.scope>	EUROPEAN PARLIAMENT AND OF	
<att.static></att.static>	THE COUNCIL establishing a	
<att.const></att.const>	framework for the protection of soil	
<att.collection></att.collection>	and amending Directive 2004/35/EC,	
<att.multiplicity></att.multiplicity>	SECTION ONE IDENTIFICATION	
<att.stereotype></att.stereotype>	OF RISK AREAS, Article 6, No 1 (a),	
	erosion by water	
<att.name></att.name>	Att.Notes>according to the proposal	Default: <att.default></att.default>
<att.type></att.type>	for a DIRECTIVE OF THE	
<att.scope></att.scope>	EUROPEAN PARLIAMENT AND OF	
<att.static></att.static>	THE COUNCIL establishing a	
<att.const></att.const>	framework for the protection of soil	
<att.collection></att.collection>	and amending Directive 2004/35/EC,	
<att.multiplicity></att.multiplicity>	SECTION ONE IDENTIFICATION	
<att.stereotype></att.stereotype>	OF RISK AREAS, Article 6, No 1 (a),	
	erosion by wind	

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
< Att.Name> <att.type></att.type>	Att.Notes>according to "Data Specifications" – deliverable D2.3:	Default: <att.default></att.default>
<att.scope></att.scope>	Definition of Annex Themes and	
<att.static></att.static>	Scope, 7.12 Natural risk zones	
<att.collection></att.collection>		
<att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity>		

<Element.Notes>an enumeration type specifying a set of earthmoves categories



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones, Ground shaking hazard</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	Att.Notes>according to "Data"	Default: <att.default></att.default>
<att.type></att.type>	Specifications" – deliverable D2.3:	
<att.scope></att.scope>	Definition of Annex Themes and	
<att.static></att.static>	Scope, 7.12 Natural risk zones, a fire	
<att.const></att.const>	hazard particularly related to dry	
<att.collection></att.collection>	forested areas.	
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

<Element.Notes>an enumeration type specifying a set of other risk categories



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones, the freezing or thawing of permafrost</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	Att.Notes>according to "Data"	Default: <att.default></att.default>
<att.type></att.type>	Specifications" – deliverable D2.3:	
<att.scope></att.scope>	Definition of Annex Themes and	
<att.static></att.static>	Scope, 7.12 Natural risk zones	
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

<Element.Notes>an enumeration type specifying a set of storm categories



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones. A severe tropical cyclone having winds greater than 64 knots (74 miles per hour; 119 kilometers per hour), originating in the equatorial regions of the Atlantic Ocean or Caribbean Sea or eastern regions of the Pacific Ocean, traveling north, northwest, or northeast from its point of origin, and usually involving heavy rains.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

<Element.Notes>an enumeration type specifying a set of volcanic categories



Attributes

Attribute Attribute	Notes	Constraints and tags
		0
<att.name></att.name>	<att.notes>according to "Data</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	Specifications" – deliverable D2.3:	
<att.scope></att.scope>	Definition of Annex Themes and	
<att.static></att.static>	Scope, 7.12 Natural risk zones	
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>	Att.Notes>according to "Data	Default: <att.default></att.default>
<att.type></att.type>	Specifications" – deliverable D2.3:	
<att.scope></att.scope>	Definition of Annex Themes and	
<att.static></att.static>	Scope, 7.12 Natural risk zones.	
<att.const></att.const>	An outpouring of lava onto the land	
<att.collection></att.collection>	surface from a vent or fissure. Also, a	
<att.multiplicity></att.multiplicity>	solidified tongue like or sheet like body	
<att.stereotype></att.stereotype>	formed by outpouring lava.	
	Fine particles of pulverized rock blown	
	from an explosion vent. Ash may be	
	either solid or molten when first	
	erupted.	

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	Att.Notes>The area as it has been	Default: <att.default></att.default>
<att.type></att.type>	observed, and witnessed for a past or	
<att.scope></att.scope>	current event.	
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		



<att.stereotype></att.stereotype>		
< Att.Name> <att.type> <att.scope></att.scope></att.type>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static>		
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>The area as it could -or would- have been after having made simulation of the occurence of the event.</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>geographical areas which could be flooded according to the other scenarios, enumeration that have to be supplemented by experts

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>



Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>an enumeration type specifying a set of duration of hazard categories

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attributes

Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.



Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>an enumeration type specifying a set of frequency of hazard categories

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attributes

Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>according to "Data Specifications" – deliverable D2.3: Definition of Annex Themes and Scope, 7.12 Natural risk zones</att.notes>	Default: <att.default></att.default>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>an enumeration type specifying a set of level of risk categories



Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attributes

Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>high risk</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>medium risk</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>low risk</att.notes>	Default: <att.default></att.default>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

 $\label{lem:decomposition} \textit{Detail:} \qquad \textit{Created on $<$Element.DateCreatedShort>}. \ \textit{Last modified on $<$Element.DateModifiedShort>}.$

GUID: <Element.GUID>

<Element.Notes>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>



Attributes Attribute	Notes	Constraints and tags
<att.name></att.name>	<att.notes>Flooding of land by waters</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	exceeding the capacity of their carrying	
<att.scope></att.scope>	channel or the level of adjacent lands	
<att.static></att.static>	3	
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
J I		
<att.name></att.name>	<att.notes>Flooding of land due to</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	floodwaters overtopping flood	
<att.scope></att.scope>	defences.	
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
a remoter only per		
<att.name></att.name>	<att.notes>Flooding of land due to the</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	failure of natural or artificial defences	
<att.scope></att.scope>	or infrastructure. This mechanism of	
<att.static></att.static>	flooding could include the breaching or	
<att.const></att.const>	collapse of a flood defence or retention	
<att.collection></att.collection>	structure, or the failure in operation of	
<att.multiplicity></att.multiplicity>	pumping equipment or gates.	
<att.stereotype></att.stereotype>		
• • • • • • • • • • • • • • • • • • • •		
<att.name></att.name>	<a example.com="" flooding-of-land-by-water"="" href="https://example.com/schemes/Att.Notes/Flooding.com/schemes/Floo</td><td>Default: <Att.Default></td></tr><tr><td><Att.Type></td><td>natural or artificial blockage or</td><td></td></tr><tr><td><Att.Scope></td><td>restriction of a conveyance channel or</td><td></td></tr><tr><td><Att.Static></td><td>system. This mechanism of flooding</td><td></td></tr><tr><td><Att.Const></td><td>could include the blockage of sewerage</td><td></td></tr><tr><td><Att.Collection></td><td>systems or due to restrictive channel</td><td></td></tr><tr><td><Att.Multiplicity></td><td>structures such as bridges or culverts or</td><td></td></tr><tr><td><Att.Stereotype></td><td>arising from ice jams.</td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td><Att.Name></td><td>Att.Notes>Flooding of land by water	Default: <att.default></att.default>
<att.type></att.type>	due to other mechanisms	
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		



<att.name></att.name>	Att.Notes No data available on the	Default: <att.default></att.default>
<att.type></att.type>	mechanism of flooding.	
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

Type:

<Element.Type <Element.Status. Version <Element.Phase. Phase <Element.Phase. Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: $Created\ on\ <\! Element. Date Created Short\!>.\ Last\ modified\ on\ <\! Element. Date Modified Short\!>.$

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

<Element.Notes>an enumeration type specifying a set of phenomena of hazard categories



<att.name></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

Type:

<u><Element.Type></u> <u><Element.BaseClasses></u>Element.Status>. Version kenter-edge-1000cm
Phase Element.Phase>. Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

 $\label{lem:condition} \textit{Created on <} \textit{Element.DateCreatedShort>}. \ \textit{Last modified on <} \textit{Element.DateModifiedShort>}.$ Detail:

GUID: <Element.GUID>

<Element.Notes>Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risk, CHAPTER III, FLOOD HAZARD MAPS AND FLOOD RISK MAPS, Article 6, No 3 (a), (b), (c)

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	<att.notes>floods with a low</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	probability, or extreme event scenarios	
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		
<att.name></att.name>	Att.Notes>floods with a medium	Default: <att.default></att.default>
<att.type></att.type>	probability (likely return period = 100	
<att.scope></att.scope>	years)	
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		



<att.name></att.name>	<att.notes>floods with a high</att.notes>	Default: <att.default></att.default>
<att.type></att.type>	probability, where appropriate	
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

Type:

<Element.Type <Element.Status. Version <Element.Phase. Phase <a href="mailto:kellement.Phase. Status:

<Element.ParentPackage> Keywords: <Element.Tag> Package:

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• <CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

<Element.Type> <Element.BaseClasses> Type:

<Element.Status>. Version <Element.Version>. Phase <Element.Phase>. Status:

<Element.ParentPackage> Keywords: <Element.Tag> Package:

Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>. Detail:

GUID: <Element.GUID>

Custom Properties

<CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

<Element.Type> <Element.BaseClasses> *Type:*

 $<\!Element.Status>.\ Version<\!Element.Version>.\ Phase<\!Element.Phase>.$ Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>. Detail:

<Element.GUID> GUID:

<Element.Notes>enumeration that have to be supplemented by experts

<Element.Notes>enumeration that have to be supplemented by experts

<Element.Notes>enumeration that have to be supplemented by experts



Custom Properties

• <CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

Type: <<u>Element.Type> <Element.BaseClasses></u>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

<CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>



Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>

Custom Properties

• <CustomProperty.Name> = <CustomProperty.Value>

Attribute	Notes	Constraints and tags
<att.name></att.name>	Att.Notes>Flooding of land by waters	Default: <att.default></att.default>
<att.type></att.type>	originating from part of a natural	
<att.scope></att.scope>	drainage system, including natural or	
<att.static></att.static>	modified drainage channels. This	
<att.const></att.const>	source could include flooding from	
<att.collection></att.collection>	rivers, streams, drainage channels,	
<att.multiplicity></att.multiplicity>	mountain torrents and ephemeral	
<att.stereotype></att.stereotype>	watercourses, lakes and floods arising	
	from snow melt	
<att.name></att.name>	<a example.com="" flooding-of-land-by-waters"="" href="https://example.com/schemes/Flooding.com/s</td><td>Default: <Att.Default></td></tr><tr><td><Att.Type></td><td>from rainfall water falling on, or</td><td></td></tr><tr><td><Att.Scope></td><td>flowing over, the land. This source</td><td></td></tr><tr><td><Att.Static></td><td>could include urban storm water, rural</td><td></td></tr><tr><td><Att.Const></td><td>overland flow or excess water, or</td><td></td></tr><tr><td><Att.Collection></td><td>overland floods arising from snowmelt.</td><td></td></tr><tr><td><Att.Multiplicity></td><td></td><td></td></tr><tr><td><Att.Stereotype></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td><Att.Name></td><td>Att.Notes>Flooding of land by waters	Default: <att.default></att.default>
<att.type></att.type>	from underground rising to above the	
<att.scope></att.scope>	land surface. This source could include	
<att.static></att.static>	rising groundwater and underground	
<att.const></att.const>	flow from elevated surface waters.	
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Flooding of land by water from the sea, estuaries or coastal lakes. This source could include flooding from the sea (e.g., extreme tidal level and / or storm surges) or arising from wave action or tsunamis.</att.notes>	Default: <att.default></att.default>
<att.name> <att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name></att.name>	<att.notes>Flooding of land by water arising from artificial, water-bearing infrastructure or failure of such infrastructure. This source could include flooding arising from sewerage systems (including storm water, combined and foul sewers), water supply and wastewater treatment systems, artificial navigation canals and impoundments (e.g., dams and reservoirs).</att.notes>	Default: <att.default></att.default>
<att.name> <att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name></att.name>	<att.notes>Flooding of land by water due to other sources</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>No data available on the source of flooding.</att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>



• <CustomProperty.Name> = <CustomProperty.Value>

<u>Attributes</u>		
Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to human health, either as immediate or consequential impacts, such as might arise from pollution or interruption of services related to water supply and treatment, and would include fatalities.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to the community, such as detrimental impacts on local governance and public administration, emergency response, education, health and social work facilities (such as hospitals).</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences ecological or chemical status of surface water bodies or chemical status of ground water bodies affected, as of concern under the WFD. Such consequences may arise from pollution from various sources (point and diffuse) or due to hydromorphological impacts of flooding.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to protected areas or waterbodies such as those designated under the Birds and Habitats Directives, bathing waters or drinking water abstraction points.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Sources of potential pollution in the event of a flood, such as IPPC and Seveso installations, or point or diffuse sources.</att.notes>	Default: <att.default></att.default>



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to cultural heritage, which could include archaeological sites / monuments, architectural sites, museums, spiritual sites and buildings.</att.notes>	Default: <att.default></att.default>
<att.name> <att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name></att.name>	<att.notes>Adverse consequences to property, which could include homes</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to infrastructural assets such as utilities, power generation, transport, storage and communication.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to uses of the land, such as agricultural activity (livestock, arable and horticulture), forestry, mineral extraction and fishing.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Adverse consequences to sectors of economic activity, such as manufacturing, construction, retail, services and other sources of employment</att.notes>	Default: <att.default></att.default>



<att.name></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.type></att.type>		
<att.scope></att.scope>		
<att.static></att.static>		
<att.const></att.const>		
<att.collection></att.collection>		
<att.multiplicity></att.multiplicity>		
<att.stereotype></att.stereotype>		

Type:

<Element.Type <Element.Status. Version <Element.Phase. Phase <a href="mailto:kellement.Phase. Status:

<Element.ParentPackage> Keywords: <Element.Tag> Package:

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

<Element.GUID> GUID:

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

• <CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

<Element.Type> <Element.BaseClasses> Type:

<Element.Status>. Version <Element.Version>. Phase <Element.Phase>. Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>. Detail:

GUID: <Element.GUID>

<Element.Notes>enumeration that have to be supplemented by experts

Custom Properties

<CustomProperty.Name> = <CustomProperty.Value>

<{Element.Name}>

<Element.Type> <Element.BaseClasses> Type:

 $<\!Element.Status>.\ Version<\!Element.Version>.\ Phase<\!Element.Phase>.$ Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

<Element.GUID> GUID:

<Element.Notes>



Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Attributes

Attributes Attribute	Notes	Constraints and tags
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>

<{Pkg.Name}>

Type:

<u>Package < Pkg.Stereotvpe></u> < Pkg.Status>. Version < Pkg.Version>. Phase < Pkg.Phase>. Status:



Package: <Pkg.ParentPackage>

Detail: Created on <Pkg.DateCreatedShort>. Last modified on <Pkg.DateModifiedShort>

GUID: <Pkg.GUID>

<Pkg.Notes>

<Diagram.Name> - (<Diagram.Type> diagram)

Created By: <Diagram.Author> on <Diagram.DateCreatedShort>

Last Modified: <Diagram.DateModifiedShort>

Version: <Diagram.Version>. Locked: <Diagram.IsLocked>

GUID: <Diagram.GUID>

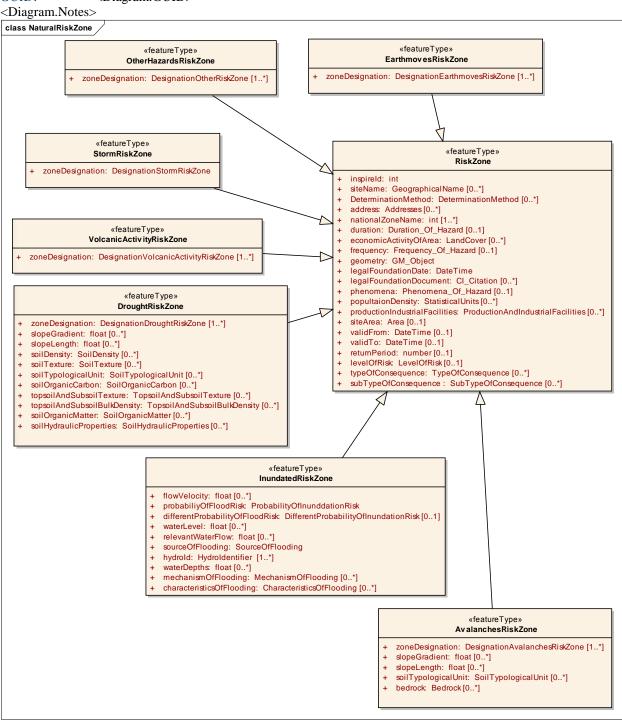


Figure: 3



<Diagram.Name> - (<Diagram.Type> diagram)

Created By: <Diagram.Author> on <Diagram.DateCreatedShort>

Last Modified: <Diagram.DateModifiedShort>

Version: <Diagram.Version>. Locked: <Diagram.IsLocked>

GUID: <Diagram.GUID> <Diagram.Notes>*NaturalRiskZone*

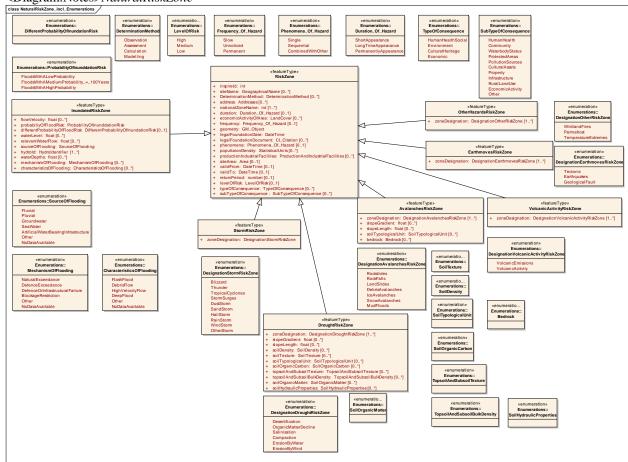


Figure: 4

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>common elements for the identification of areas at risk of avalanches

Custom Properties

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Connections

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Attribute	Notes	Constraints and tags
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	IDENTIFICATION OF AREAS AT	
	RISK OF LANDSLIDES	
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	ELEMENTS FOR THE	
	IDENTIFICATION OF AREAS AT	
	RISK OF LANDSLIDES	

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

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<Element.Notes>according to the proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for the protection of soil and amending Directive 2004/35/EC, SECTION ONE IDENTIFICATION OF RISK AREAS, Article 6, ANNEX I, SECTION 1-4, COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF EROSION, OF SOIL ORGANIC MATTER DECLINE, OF COMPACTION, OF SALINISATION

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Connections

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Attribute	Notes	Constraints and tags
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2 Ittividitipitetty/	SECTION ONE IDENTIFICATION	



<att.name> <att.name> <att.type> <att.scope> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.scope></att.type></att.name></att.name>	OF RISK AREAS, Article 6, ANNEX I, SECTION 1COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF EROSION, SECTION 2 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SOIL ORGANIC MATTER DECLINE, SECTION 4 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SALINISATION <a "="" href="https://doi.org/10.108/j.cc/ INTER DECLINE, SECTION 4 COMMON ELEMENTS FOR THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for the protection of soil and amending Directive 2004/35/EC, SECTION ONE IDENTIFICATION OF RISK AREAS, Article 6, ANNEX I, SECTION 1 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF EROSION, SECTION 2 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SOIL ORGANIC MATTER DECLINE, SECTION 3 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF COMPACTION, SECTION 4 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF COMPACTION, SECTION 5 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SALINISATION, SECTION 5 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SALINISATION, SECTION 5 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF SALINISATION, SECTION 5 COMMON ELEMENTS FOR THE IDENTIFICATION OF AREAS AT RISK OF LANDSLIDES</th><th>Default: <Att.Default></th></tr><tr><td><Att.Name></td><td>https://www.exactording.com/<td>Default: <att.default></att.default></td>	Default: <att.default></att.default>
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	IDENTIFICATION OF AREAS AT	
	RISK OF SOIL ORGANIC	
	MATTER DECLINE,	



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Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Connections

Connector	Source	Target	Notes
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<connector.name></connector.name>	e>	>	
<connector.direction></connector.direction>	<connsource.role< td=""><td><conntarget.role></conntarget.role></td><td></td></connsource.role<>	<conntarget.role></conntarget.role>	
	>	<conntarget.role< td=""><td></td></conntarget.role<>	
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Attributes

Attribute	Notes	Constraints and tags
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Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>according to 5.3.2.4.4 InundatedLand, INSPIRE DataSpecification HY, a tract periodically covered by flood water

Custom Properties

<Element.Notes>common elements for the identification of areas at risk of earthmoves



• <CustomProperty.Name> = <CustomProperty.Value>

Connections

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<connector.name></connector.name>	e>	>	
<connector.direction></connector.direction>	<connsource.role< td=""><td><conntarget.role></conntarget.role></td><td></td></connsource.role<>	<conntarget.role></conntarget.role>	
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<u>Attributes</u>		
Attribute	Notes	Constraints and tags
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<att.type></att.type>	the European Parliament and of the	
<att.scope></att.scope>	Council of 23 October 2007 on the	
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<att.type></att.type>	could be flooded according to the other	
<att.scope></att.scope>	scenarios	
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GUID: <Element.GUID>

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Connections

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Attributes

Attribute	Notes	Constraints and tags
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<Element.Notes>common elements for the identification of areas at risk of other hazards



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Type:

<Element.Type <Element.Status. Version <Element.Phase. Phase <a href="mailto:kellement.Phase. Status:

Package: <Element.ParentPackage> Keywords: <Element.Tag>

 $\label{lem:condition} \textit{Created on <} \textit{Element.DateCreatedShort>}. \ \textit{Last modified on <} \textit{Element.DateModifiedShort>}.$ Detail:

GUID: <Element.GUID>

<Element.Notes>"Natural risk zones" are zones where natural hazards areas intersect with highly populated areas and/or areas of particular environmental/ cultural/ economic value. Risk in this context is defined as: risk = hazard x probability of its occurrence x vulnerability of the exposed populations and of the environmental, cultural and economic assets in the zone considered.

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Connections

Connector	Source	Target	Notes
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	>	<conntarget.role< td=""><td></td></conntarget.role<>	
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<connector.name></connector.name>	e>	>	
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	>	<conntarget.role< td=""><td></td></conntarget.role<>	



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	<element.name></element.name>		
<connector.type> <connector.name> <connector.direction></connector.direction></connector.name></connector.type>	<connsource.scop e> <connsource.role > <connsource.role Note> <element.name></element.name></connsource.role </connsource.role </connsource.scop 	<conntarget.scope> <conntarget.role> <conntarget.role note=""> <element.name></element.name></conntarget.role></conntarget.role></conntarget.scope>	<connector.notes></connector.notes>
<pre><connector.type> <connector.name> <connector.direction></connector.direction></connector.name></connector.type></pre>	<connsource.scop e> <connsource.role > <connsource.role Note> <element.name></element.name></connsource.role </connsource.role </connsource.scop 	<conntarget.scope> <conntarget.role> <conntarget.role note=""> <element.name></element.name></conntarget.role></conntarget.role></conntarget.scope>	<connector.notes></connector.notes>
<connector.type> <connector.name> <connector.direction></connector.direction></connector.name></connector.type>	<connsource.scop e> <connsource.role > <connsource.role Note> <element.name></element.name></connsource.role </connsource.role </connsource.scop 	<conntarget.scope> <conntarget.role> <conntarget.role note=""> <element.name></element.name></conntarget.role></conntarget.role></conntarget.scope>	<connector.notes></connector.notes>

<u>Attributes</u>

Attribute	Notes	Constraints and tags
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<att.type></att.type>	of the risk zone	
<att.scope></att.scope>	NOTE An external object identifier is a	
<att.static></att.static>	unique object identifier published by	
<att.const></att.const>	the responsible body, which may be	
<att.collection></att.collection>	used by external applications to	
<att.multiplicity></att.multiplicity>	reference the spatial object. The	
<att.stereotype></att.stereotype>	identifier is an identifier of the spatial	
	object, not an identifier	
	of the real-world phenomenon.	



<pre><att.name> <att.notes>The name of the Risk Zone. Att.Scope> <att.static> <att.collection> <att.multiplicity> <att.stereotype> </att.stereotype></att.multiplicity></att.collection></att.static></att.notes></att.name></pre> <pre> <att.name> <att.notes>A simplified enumeration to describe the method used to define the area of hazard. Att.Static> <att.const> <att.collection> <att.multiplicity> <att.collection> <att.multiplicity> <att.multiplicity> <att.multiplicity> <att.multiplicity> <att.stereotype> </att.stereotype></att.multiplicity></att.multiplicity></att.multiplicity></att.multiplicity></att.collection></att.multiplicity></att.collection></att.const></att.notes></att.name></pre> <pre> <att.notes>Att.Notes>addresses in a risk zone</att.notes></pre> <pre> Default: <att.default></att.default></pre>
<att.scope> <att.static> <att.const> <att.multiplicity> <att.name> <att.name> <att.type> <att.scope> <att.static> <att.static> <att.static> <att.const> <att.multiplicity> <att.multiplicity> <att.static> <att.static> <att.multiplicity> <att.static> <att.static< td=""></att.static<></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.static></att.multiplicity></att.static></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.static></att.multiplicity></att.multiplicity></att.const></att.const></att.const></att.const></att.const></att.const></att.const></att.const></att.const></att.const></att.const></att.static></att.static></att.static></att.scope></att.type></att.name></att.name></att.multiplicity></att.const></att.static></att.scope>
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 Att.Multiplicity> Att.Multiplicity> Att.Notes>A simplified enumeration to describe the method used to define the area of hazard. Default: Att.Default> <a hre<="" td="">
 Att.Stereotype>
 Att.Name <a hre<="" td="">
<att.type> <att.scope> <att.static> <att.const> <att.multiplicity> <att.stereotype> to describe the method used to define the area of hazard.</att.stereotype></att.multiplicity></att.const></att.static></att.scope></att.type>
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Att.Name Att.Name Default: Att.Default>Default: Att.Default>Default: Att.Default>Att.Default>Att.Default>Att.Default>Default: Att.Default>Att.Default>Default: Att.Default>Default: Att.Default>Att.Default>Default: Att.Default<a href="https://w</td></tr><tr><td></td></tr><tr><td><Att.Type></td></tr><tr><td><Att.Scope></td></tr><tr><td><Att.Static></td></tr><tr><td><Att.Const></td></tr><tr><td><Att.Collection></td></tr><tr><td><Att.Multiplicity></td></tr><tr><td><Att.Stereotype></td></tr><tr><td>Att.Stereotype</td></tr><tr><td><a href=" https:="" td="" www.new.new.new.new.new.new.new.new.new.<="">
<att.type></att.type>
<att.scope></att.scope>
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<att.collection></att.collection>
<att.multiplicity></att.multiplicity>
<att.stereotype></att.stereotype>
Att.Name Att.Notes>Period over which a hazard <i>Default</i> : Att.Default>
<att.type> occurs.</att.type>
<att.scope></att.scope>
<att.static></att.static>
<att.const></att.const>
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<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	Att.Notes>type of economic activity of the area potentially affected	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Several categories of natural hazards are not sudden in nature. They may be permanent phenomena going unnoticed (e.g: radon gas emanations, deficit or excess of elements in soils and water), or slow phenomena (slow ground motion).</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>The geometry defining the boundary of the risk zone.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>The date that the risk zone 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.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>A URL or text citation referencing the legal act that created the risk zone</att.notes>	Default: <att.default></att.default>



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Hazards can be single, sequential or combined in their origin and effects</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>the indicative number of inhabitants potentially affected</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>production and industrial facilities potentially affected</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>The area of the site in hectares. This may not the same as area calculated from the geometry.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Date and time of which this version of the risk zone was or will be valid in the real world.</att.notes>	Default: <att.default></att.default>



<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>Date and time at which this version of the risk zone ceased or will cease to exist in the real world.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes>The average peroid (in years) bewtween the occurences of an event.</att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>
<att.name> <att.type> <att.scope> <att.static> <att.const> <att.collection> <att.multiplicity> <att.stereotype></att.stereotype></att.multiplicity></att.collection></att.const></att.static></att.scope></att.type></att.name>	<att.notes></att.notes>	Default: <att.default></att.default>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>



GUID: <Element.GUID>

<Element.Notes>common elements for the identification of areas at risk of storms

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>

Connections

Connector	Source	Target	Notes
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<connector.name></connector.name>	e>	>	
<connector.direction></connector.direction>	<connsource.role< td=""><td><conntarget.role></conntarget.role></td><td></td></connsource.role<>	<conntarget.role></conntarget.role>	
	>	<conntarget.role< td=""><td></td></conntarget.role<>	
	<connsource.role< td=""><td>Note></td><td></td></connsource.role<>	Note>	
	Note>	<element.name></element.name>	
	<element.name></element.name>		

Attributes

Attribute	Notes	Constraints and tags
<att.name></att.name>		

<{Element.Name}>

Type: <Element.Type> <Element.BaseClasses>

Status: <Element.Status>. Version <Element.Version>. Phase <Element.Phase>.

Package: <Element.ParentPackage> Keywords: <Element.Tag>

Detail: Created on <Element.DateCreatedShort>. Last modified on <Element.DateModifiedShort>.

GUID: <Element.GUID>

<Element.Notes>common elements for the identification of areas at risk of volcanic activity

Custom Properties

• < CustomProperty.Name> = < CustomProperty.Value>



Connections

Connector	Source	Target	Notes
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<connector.name></connector.name>	e>	>	
<connector.direction></connector.direction>	<connsource.role< td=""><td><conntarget.role></conntarget.role></td><td></td></connsource.role<>	<conntarget.role></conntarget.role>	
	>	<conntarget.role< td=""><td></td></conntarget.role<>	
	<connsource.role< td=""><td>Note></td><td></td></connsource.role<>	Note>	
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	<element.name></element.name>		

Attributes

Attribute	Notes	Constraints and tags
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