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European Network of Best Practices for Interoperability of Spatial Planning Information

Co-funded by the Community programme *e*Content*plus*

UNIVERSITY OF WEST BOHEMIA

I MODELLI DATI DI PLAN4ALL

Workshop nazionale italiano di Plan4all

Roma, 6 ottobre 2010

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I sette temi di Plan4all

- Copertura del suolo (*land cover*).
- Utilizzo del territorio (*land use*).
- Servizi di pubblica utilità e servizi amministrativi.
- Produzione e impianti industriali.
- Impianti agricoli e di acquacoltura.
- Zone sottoposte a gestione/limitazioni/regolamentazione e unità con obbligo di comunicare dati.
- Zone a rischio naturale.

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Risultati delle ricerche preliminari

ISOCARP

The Netherlands

- Reference model (2-10)

There are non-legally binding standards for the development of data specifications, on national (centralised) level. They have actually been applied, even if not legally binding: as a matter of fact they are adopted among public parties, and they comply with ISO 19100 standards.

- Rules for application schemas and feature catalogues (11-20)

There are legally binding standards for conceptual data modelling of spatial information, on national (centralised) level, which cover LU, US, AM, NR themes. They have actually been applied.
There are non-legally binding standards also, on national (centralised) level, which cover LC, AF, AM themes. They have actually been applied.

- Data transformation (21-24)

The Netherlands is going to take care of data transformation between its own data specifications and the corresponding INSPIRE data specifications through national (centralised) and regional programmes in progress.

- Registers and registries (25-27)

There aren't examples of ISO 19135-compliant on-line registers of feature catalogues, application schemas, code lists, coordinate reference systems, units of measurements, external object identifier namespaces, although the respondent states that the contents for some of the items listed above are going to be published on on-line registers.

Italy	DIPSU	LU/AM/NR

Mosaic of the urban master plans of the Province of Bologna"

di base del Piano Strutturale Comunale per il territorio provinciale bolognese"

nd weaknesses (3-4)
er's point of view, this is the most important database, and from the point of view interesting application because the same data is shared among different public

gy (8)
l glossary has been adopted.

model (9)
l has been adopted for developing these data specifications.

Application Schemas and Feature Catalogues (10-13)
pted to express this standard.
rcGis Diagrammer have been used for its development.

temporal aspects (14-15)
to express spatial characteristics of spatial objects satisfying Req 36. This is due to oftware.
There are no rules to express temporal characteristics of spatial objects satisfying Req 37. This issue has not been managed.

- Multi-lingual text and cultural adaptability (16-17)

The code lists are not multi-lingual (Req 47), as the compliance with the standard used doesn't manage this issue.

- Coordinate referencing and units of measurement model (18-19)

There is a list of coordinate reference systems that may be used in the encoding of spatial objects, as required by Req 51.
There is no list of temporal reference systems that may be used in the encoding of spatial objects, as required by Req 54. The compliance with the standard used doesn't manage this issue.

- Modelling object references (20)

Where possible, spatial objects are spatially or temporally referenced to existing spatial objects, rather than directly via coordinates, as recommended by Rec 16.

- Identifier management (21)

Conformità a INSPIRE: schede paese e schede sui singoli modelli dati.

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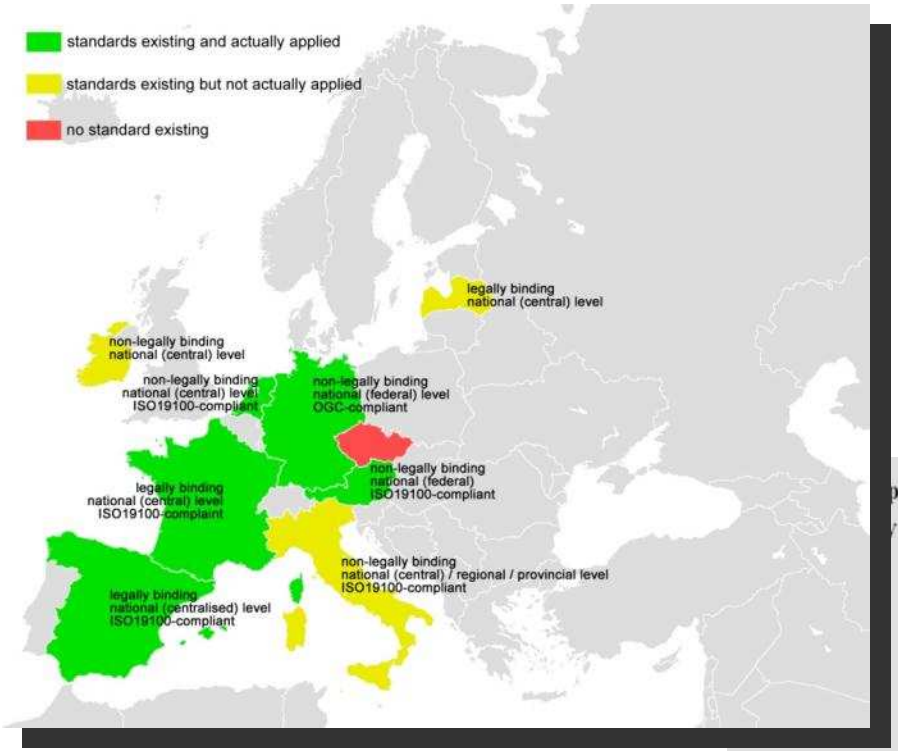
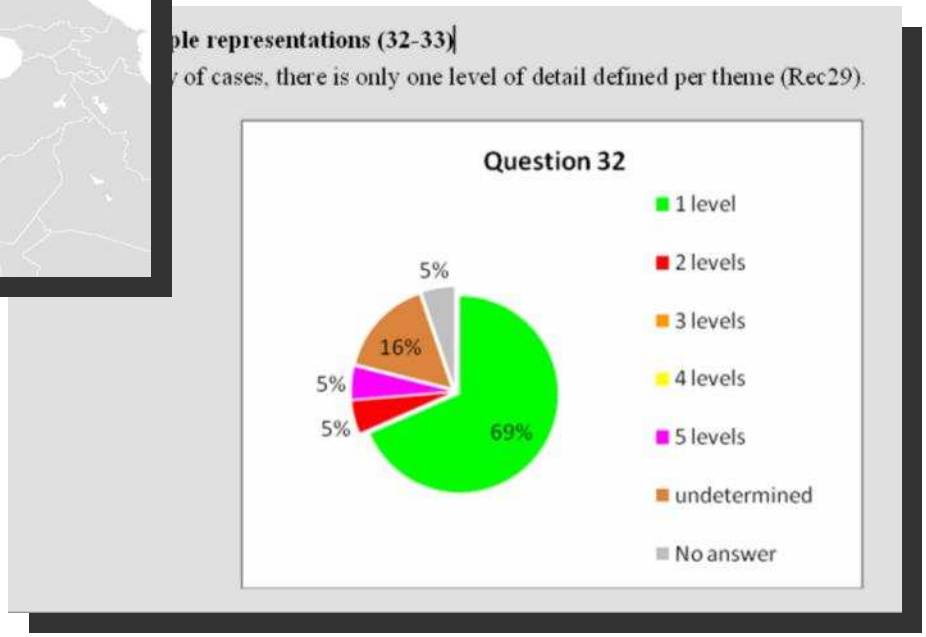
Risultati delle ricerche preliminari





Conformità a INSPIRE: schede paese e schede sui singoli modelli dati.

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I modelli dati di Plan4all

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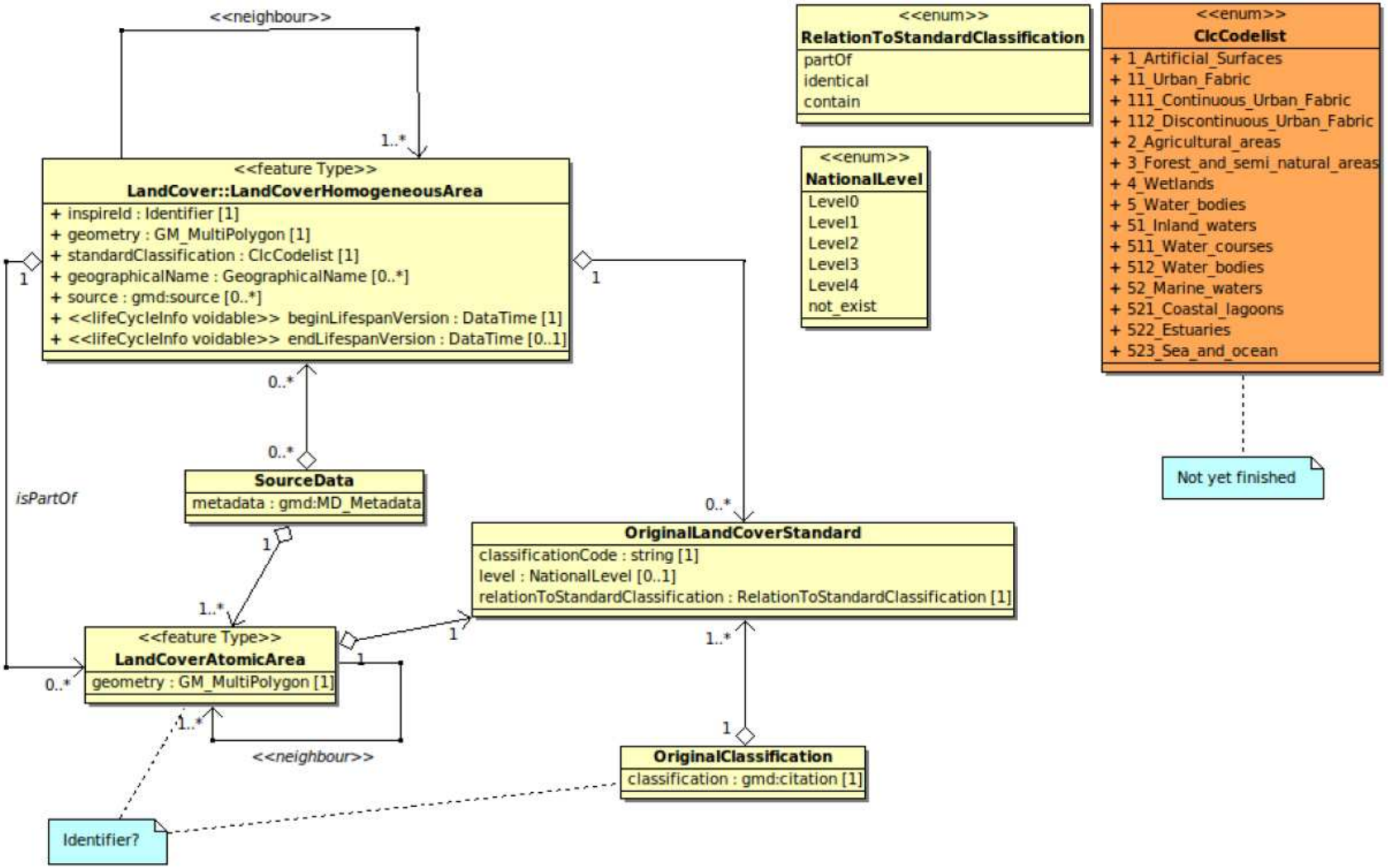
Copertura del suolo



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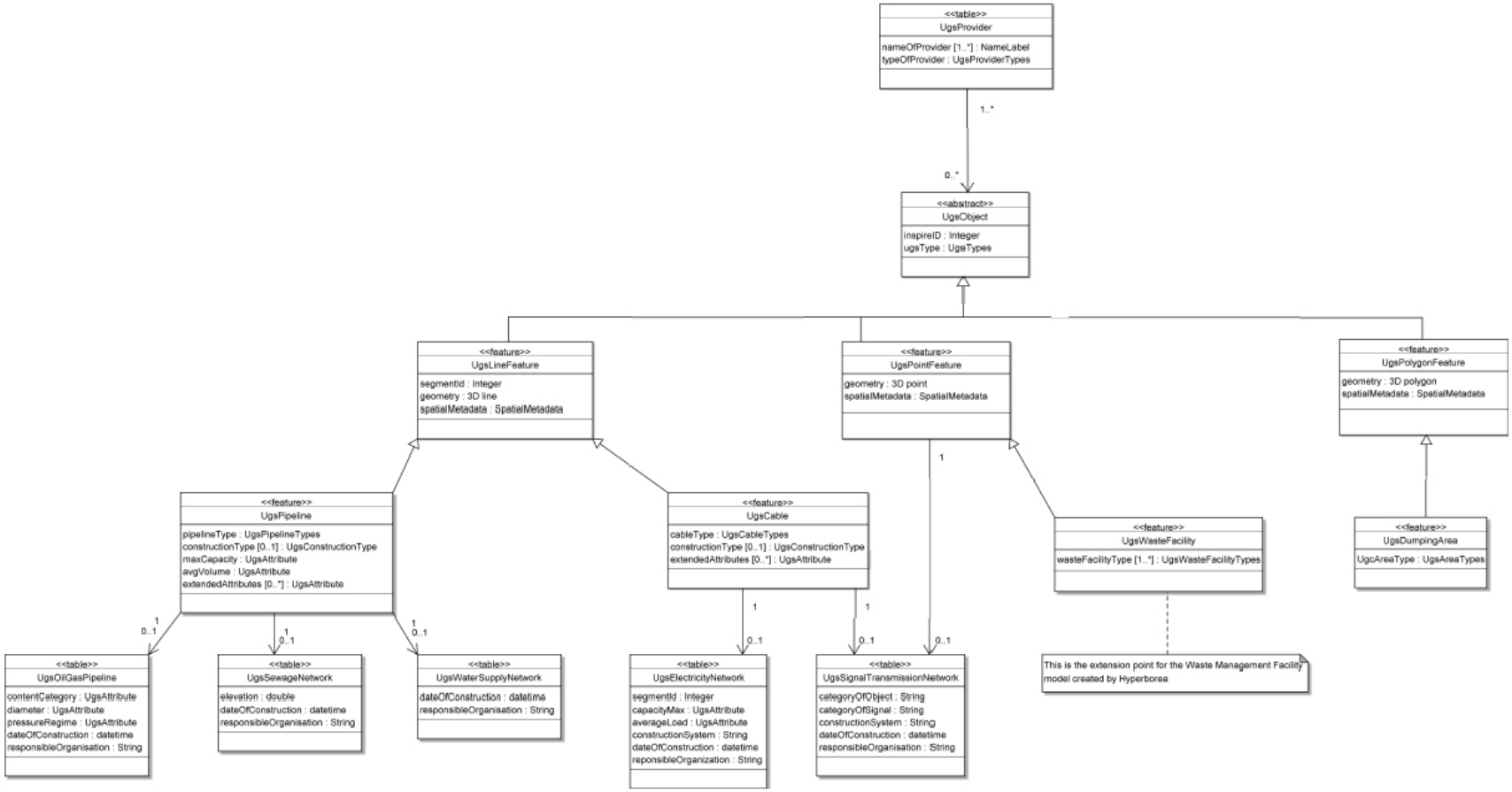
Servizi di pubblica utilità e servizi amministrativi



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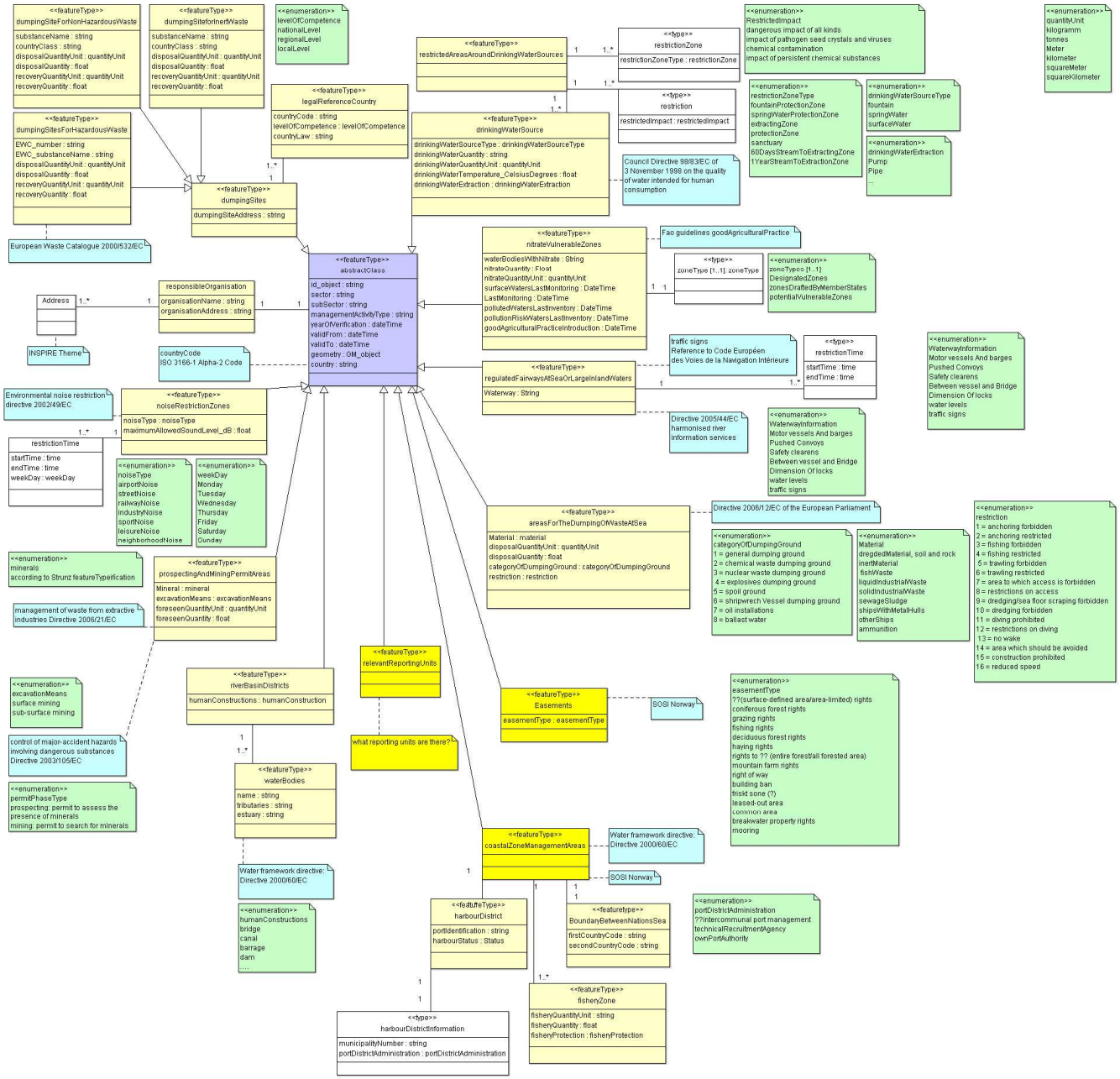
Zone sott. a gestione/limitazione/regolamentazione…



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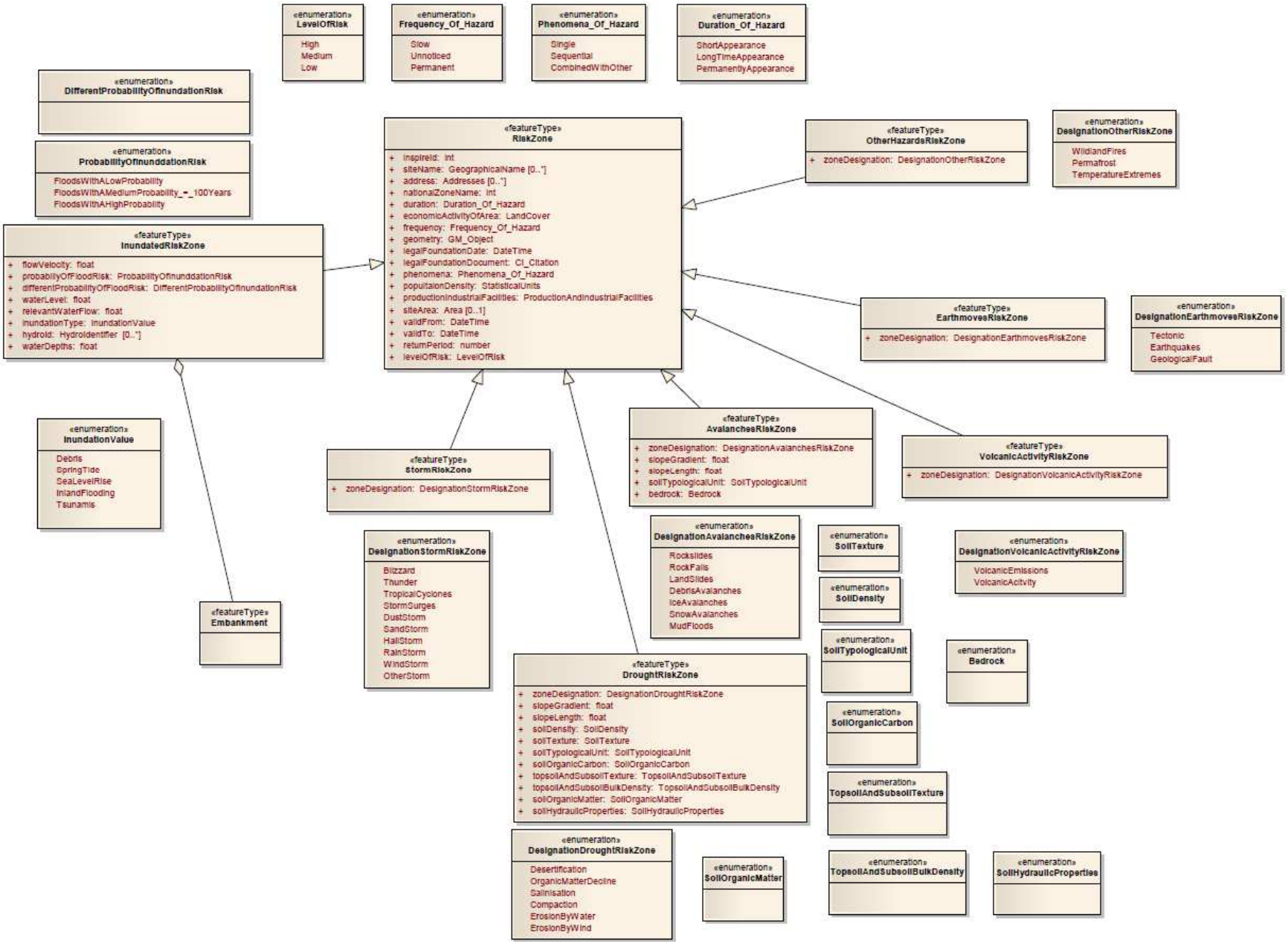
Zone a rischio naturale



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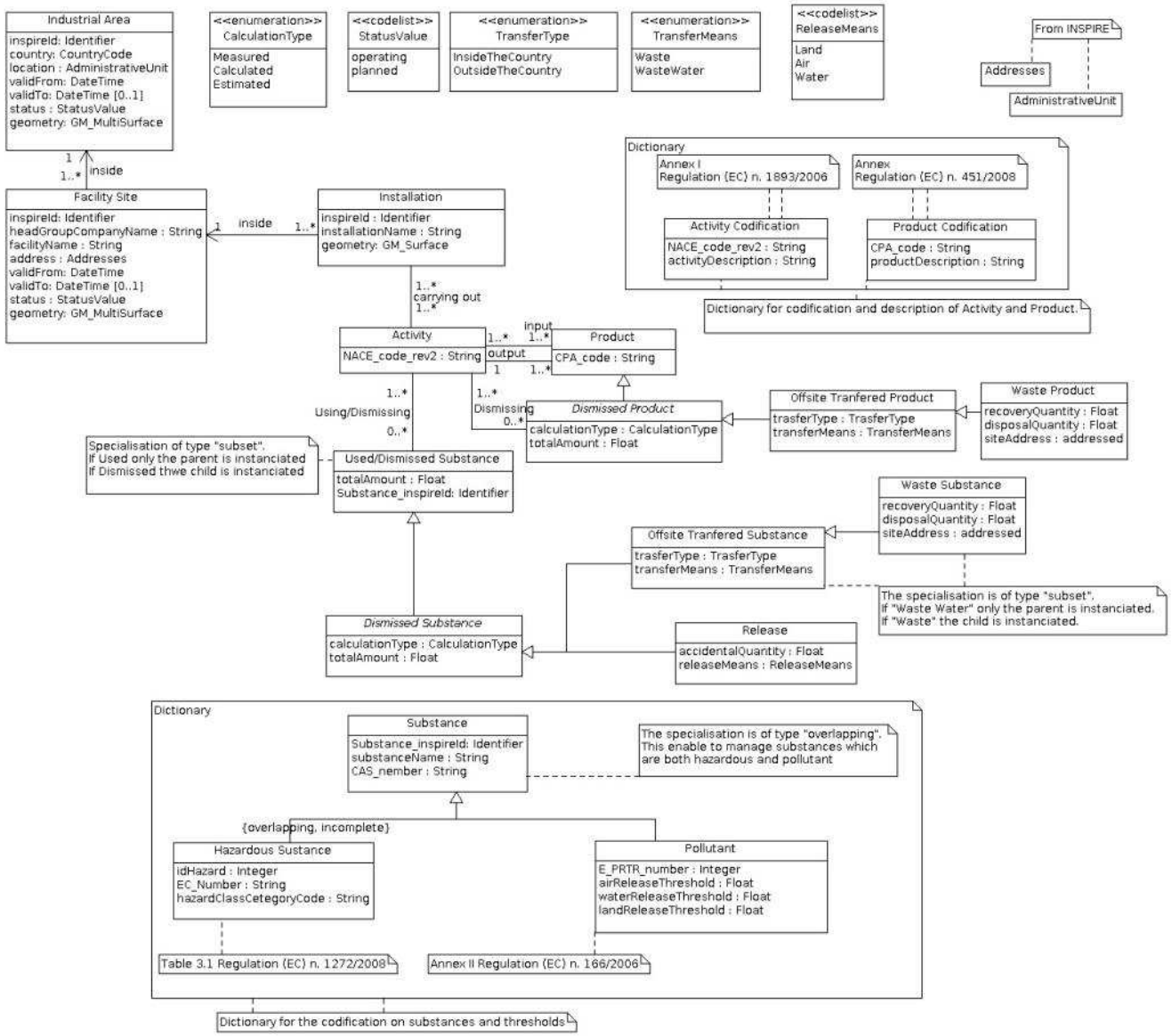
Produzione e impianti industriali



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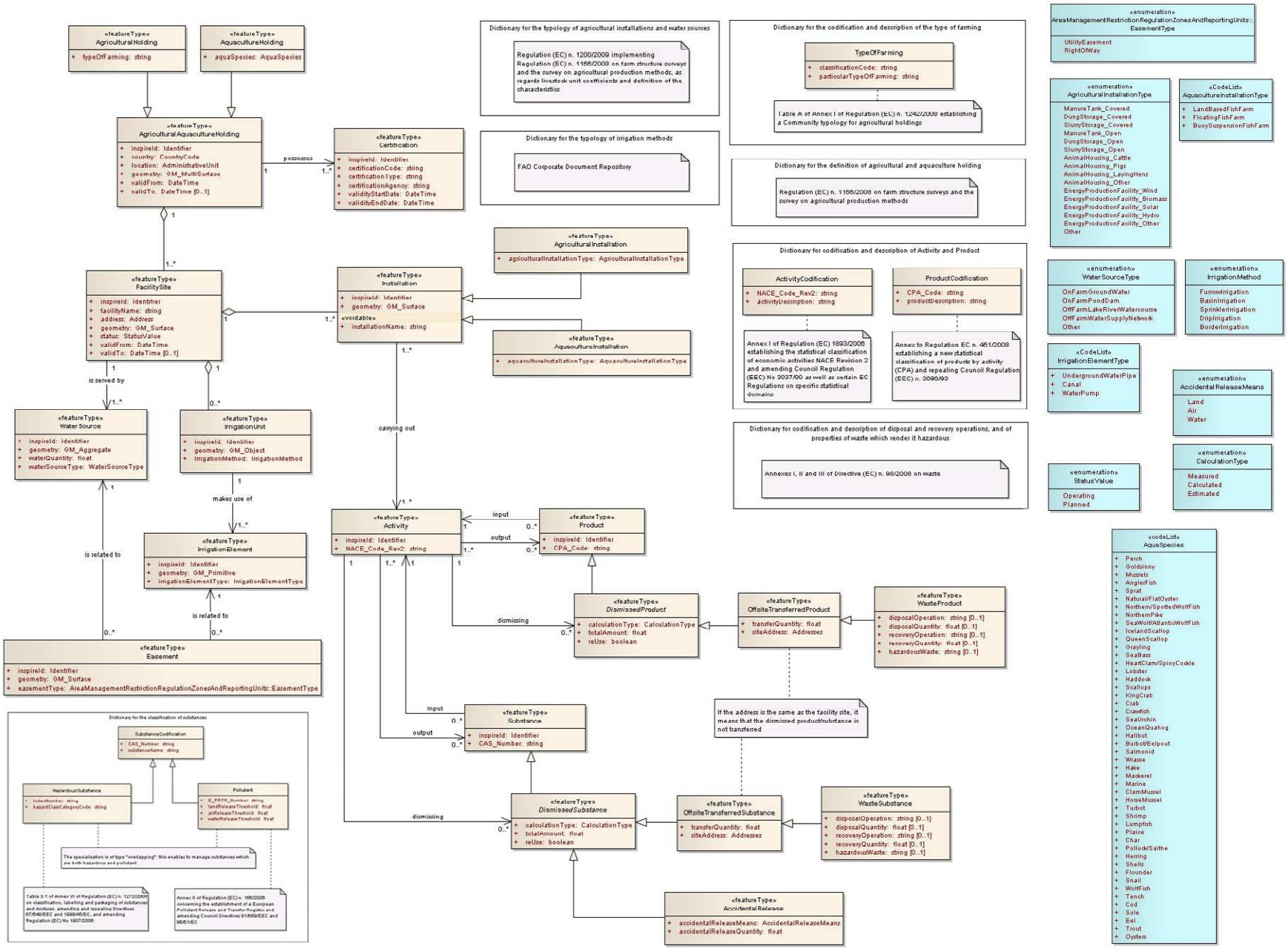
Impianti agricoli e di acquacoltura



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Il tema *Land use*

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Il tema *Land use*

- Cosa si intende per modello dati del tema *Land use*?
- Rilevanza delle informazioni sul processo di pianificazione.
- La definizione data da INSPIRE* e relative incongruenze.
- La “molteplicità dei poteri” coinvolti nei processi di pianificazione e le relative conseguenze sull’interpretazione del dato.
- Quale/i livello/i di piano prendere in considerazione?
- Le relazioni fra piani diversi.
- Le diversità tra i sistemi di pianificazione europei.

*“Territorio caratterizzato a seconda della sua dimensione funzionale pianificata presente e futura, o la sua finalità socio-economica (per esempio residenziale, industriale, commerciale, agricola, forestale, ricreativa) […]. La regolamentazione dei suoli è lo strumento generale di pianificazione territoriale ai livelli regionale e locale. Il *land use* può essere una mappatura ordinaria delle funzioni esistenti, a mo’ di rappresentazione oggettiva degli usi e delle funzioni di un territorio, ma può anche corrispondere ai piani che indicano il modo in cui il suolo può essere utilizzato nel presente e nel futuro”.

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I modelli dati di riferimento

- (AT) LISA (Land Information System Austria): *land use* e *land cover*.
- (DE) XPlanung: piani comunali, regionali e paesaggistici.
- (ES) SIOSE: *land use* e *land cover*.
- (FI) Modello dati nazionale per i piani regionali.
- (IE) ePlan: permessi e autorizzazioni urbanistiche.
- (IT) Modello dati di base del PSC per il territorio provinciale bolognese: piani strutturali comunali.
- (IT) Regione Toscana - Specifiche tecniche per l'acquisizione in formato digitale di dati geografici tematici: piani comunali e regionali.
- (FR) Plan Local d'Urbanisme - Prescriptions nationales pour la livraison des documents d'urbanisme dématérialisés: piani comunali.
- (NL) IMRO 2008: piani comunali e regionali.
- (NO) SOSI: tutti i dati geografici.

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Prime classificazioni

Elencazione e confronto di tutte le classi.

http://www.plan4all.eu/wk/images/d/d7/XPlanung.zip http://www.iai.fzk.de/www-extern/fileadmin/Image_Archive/Bauwerke/Geo-			http://www.plan4all.eu/wk/images/f/f4/Dematerialisation_documents_urbanisme201002.zip http://www.plan4all.eu/wk/images/4/4e/COVADIS_standard_zonages_h		http://www.donegal.ie/doc/eplan/ http://www.lcc.ie/ePlan/InternetEnquiry/rpt_QueryBySurForRecL		http://www.plan4all.eu/wk/images/f/f1/Modello_dati_di_base_per_il_ritorio_provinciale_bolognese.pdf	
Xplanung			**PLU**		**ePlan**		**Bologna**	
		Information on the plan process of a						
http://www.plan4all.eu/wk/images/d/d7/XPlanung.zip http://www.iai.fzk.de/www-extern/fileadmin/Image_Archive/Bauwerke/Geo-			http://www.plan4all.eu/wk/images/f/f4/Dematerialisation_documents_urbanisme201002.zip http://www.plan4all.eu/wk/images/4/4e/COVADIS_standard_zonages_h		http://www.donegal.ie/doc/eplan/ http://www.lcc.ie/ePlan/InternetEnquiry/rpt_QueryBySurForRecL		http://www.plan4all.eu/wk/images/f/f1/Modello_dati_di_base_per_il_ritorio_provinciale_bolognese.pdf	
Xplanung			**PLU**		**ePlan**		**Bologna**	
Flaechennutzungsplan Preparatory land use plan	FP_Plan	Information on the plan process of a *Flaechennutzungsplan* (preparatory land use plan, encompassing the whole municipal territory): **type of municipality, information on the related assembly decisions, legal validity**, etc.					PUC_AMM_ET	p41 **Administrative information**: adoption, approval, dates, etc.
Bebauungsplan Binding land use plan	BP_Plan	Information on the plan process of a *Bebauungsplan* (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 (R.123-5 to 8): **urban** (U), zones **to be urbanized** (UA), **agricultural areas** (A) and **natural areas and forest** (N). These four general topics are broken down into detailed categories of areas (e.g. **mixed use, leisure and tourism, agricultural activity**, etc.). These areas are delineated on one or more graphics.		PSC_TERRITORIO_PL - PSC_TERRITORIO_AS	p10-13 Cartographic element of the macro classification of the land : Cartographic layer (polygon) which covers the entire municipal land an classifies it between **"urbanised"** (TU), **"to be urbanised"** (TPU + TDU) and **"rural"** (TR) according t the Regional law 20/2000 article 28,2,d.
			INFO_SURF INFO_LIN INFO_PCT	p31, p32, p32	Geographic information appended to planning document. Types of information includes **"preservation area", "Forest area", "Mining area", "neighborhood of land transport infrastructure", "protected agricultural zone", "water, sanitation, waste facilities", "area of wind**			
							PSC_ASSETTO_PL - PSC_AMBITI_AS	p14-21 The entire municipal land is composed of **territorial "ambit** ("Ambiti") **and infrastructure a facilities of greater relevanc** Types of "Ambiti" includes e.g. **"historical center", "requalification area", "production zones", "protected area", "areas of natural or environmental importance", "peri-urban**

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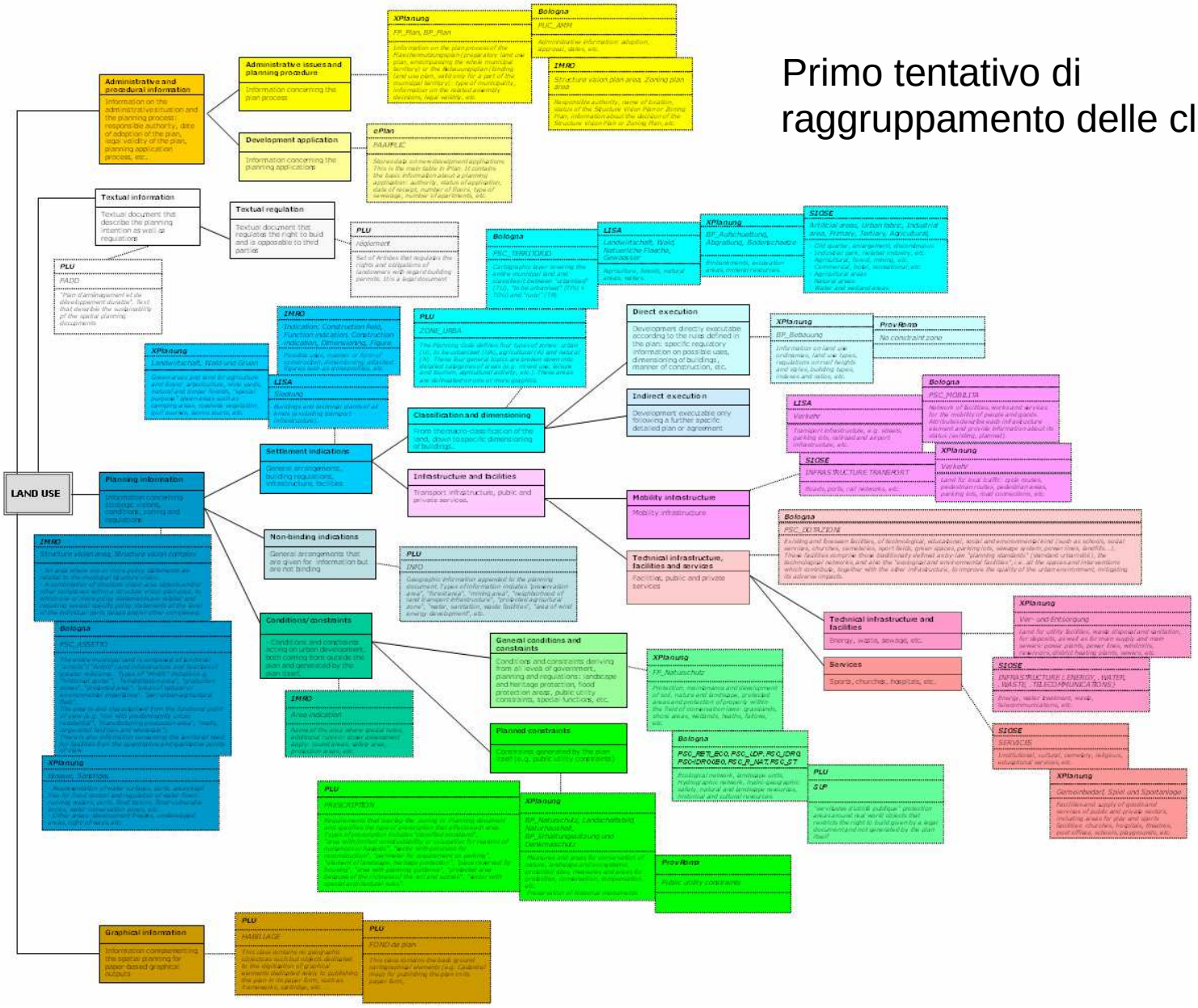
Prime classificazioni



Primo tentativo di raggruppamento delle classi.

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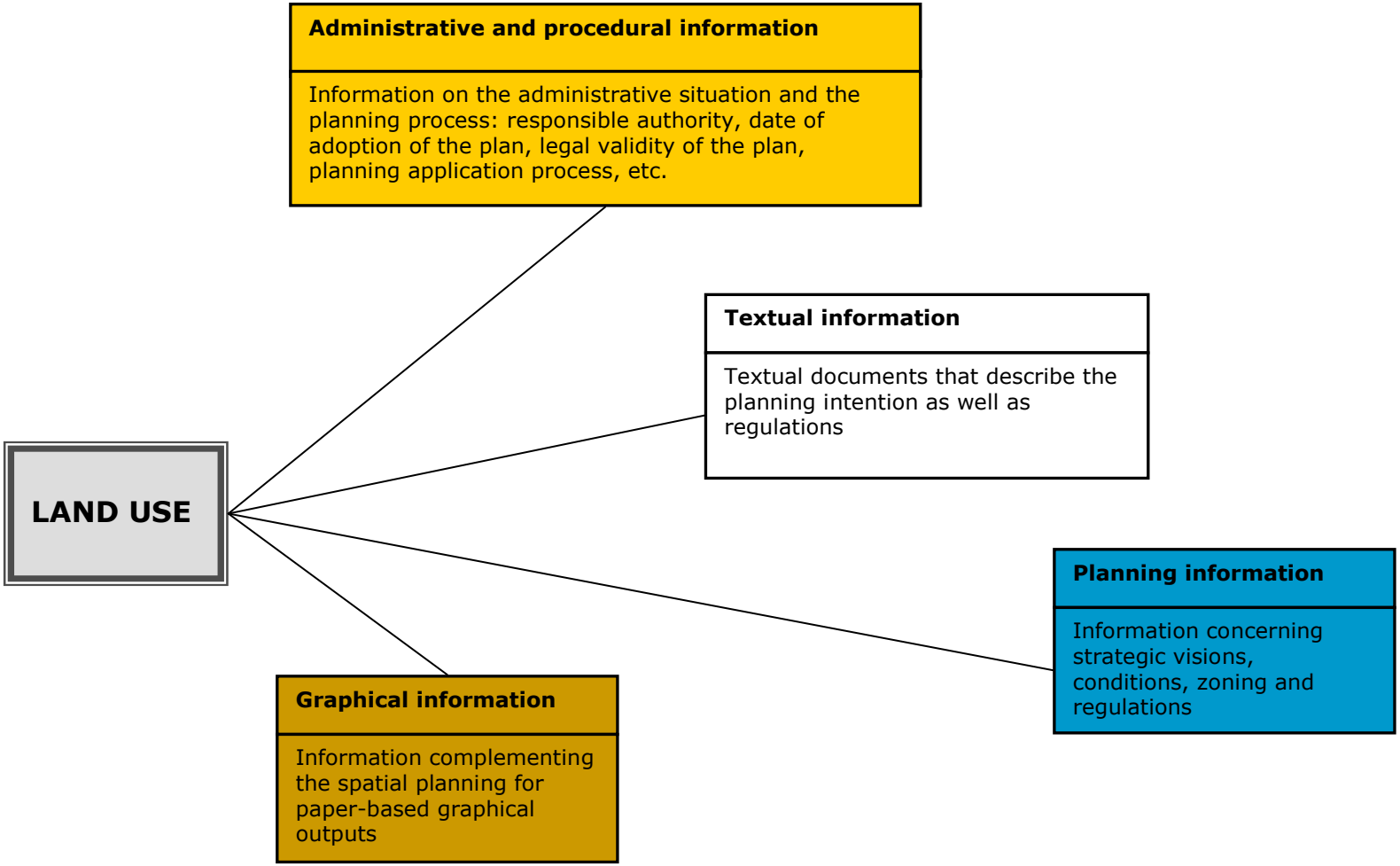
Prime classificazioni

Primo tentativo di raggruppamento delle classi.



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Prime classificazioni

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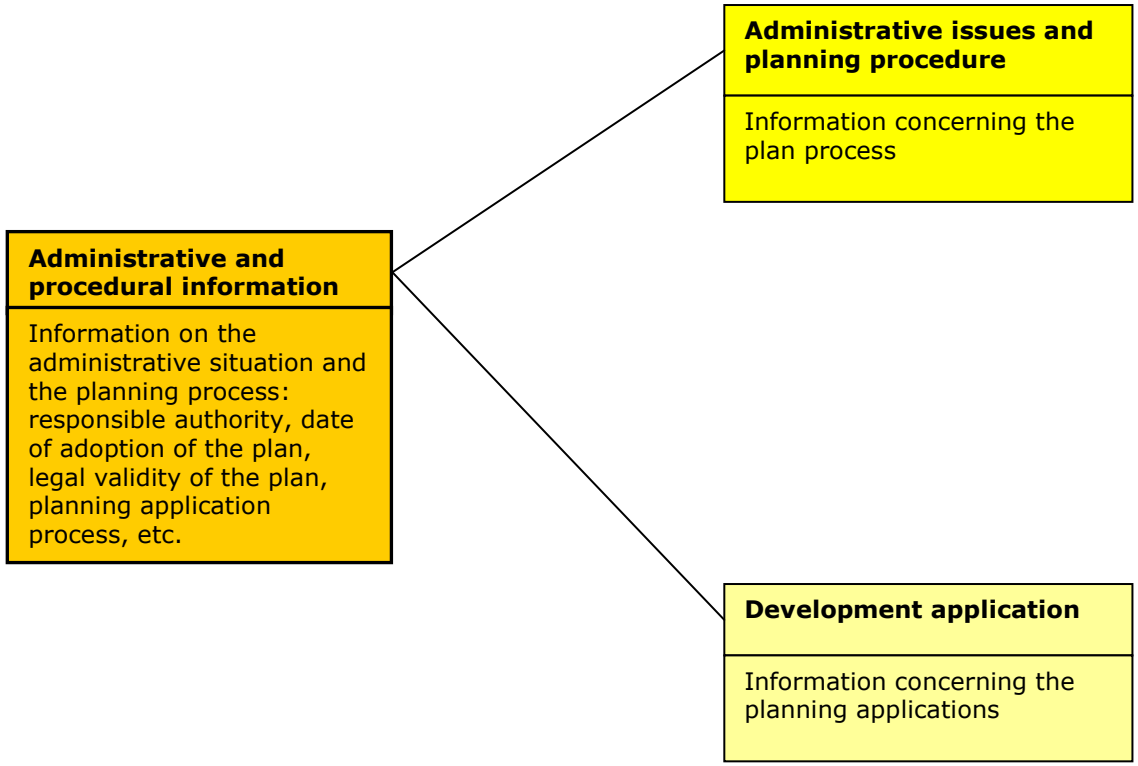

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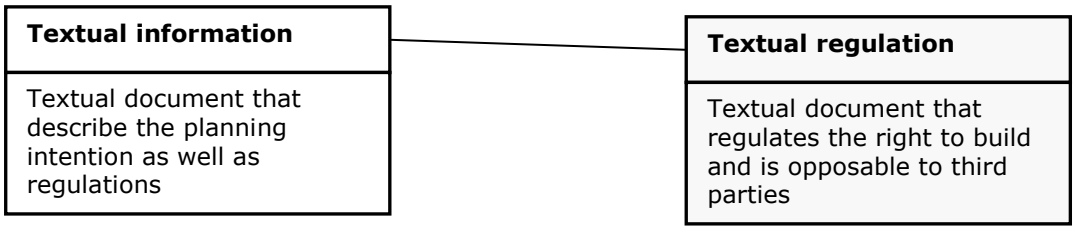

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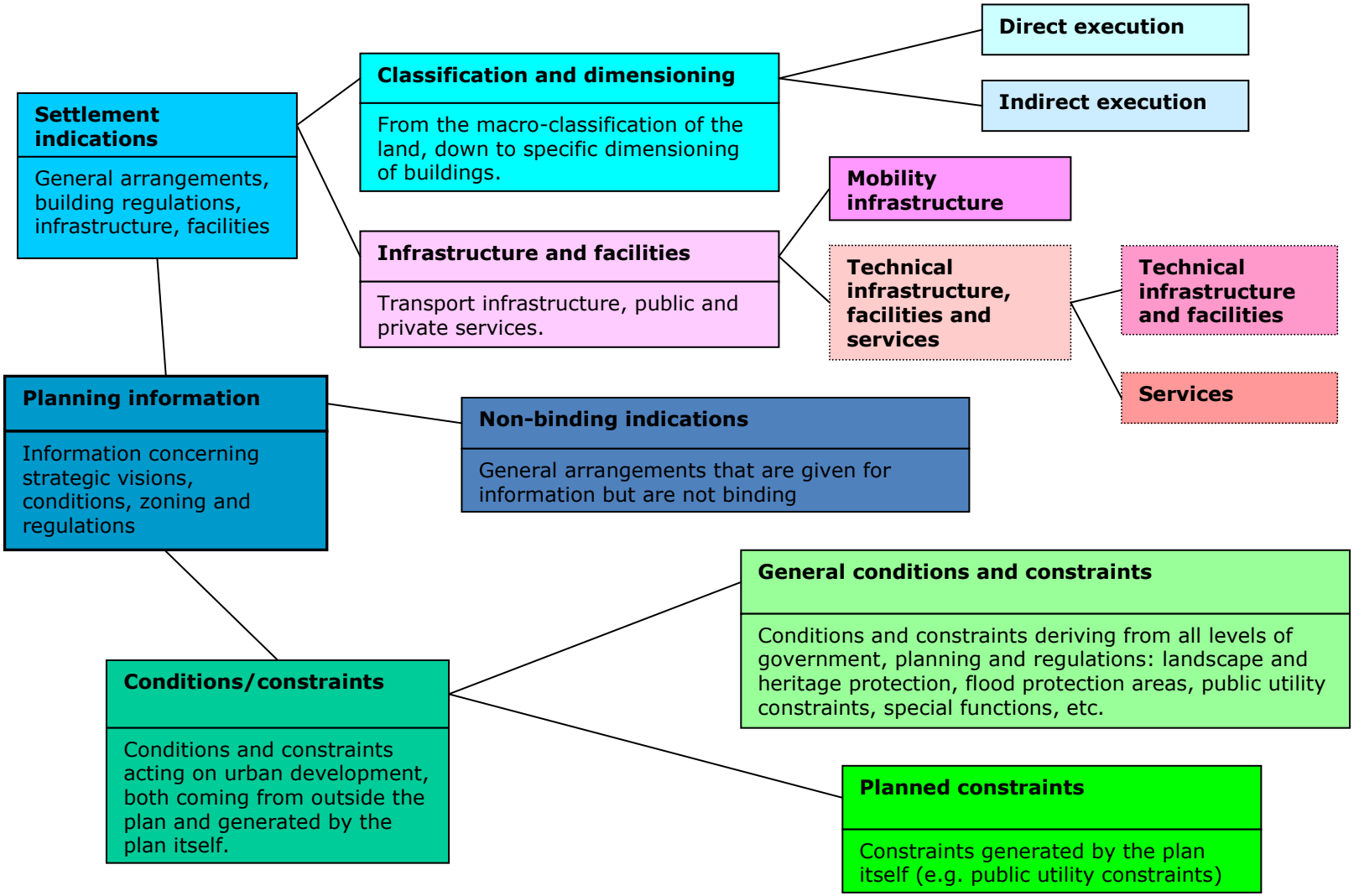
Prime classificazioni

Primo tentativo di raggruppamento delle classi.



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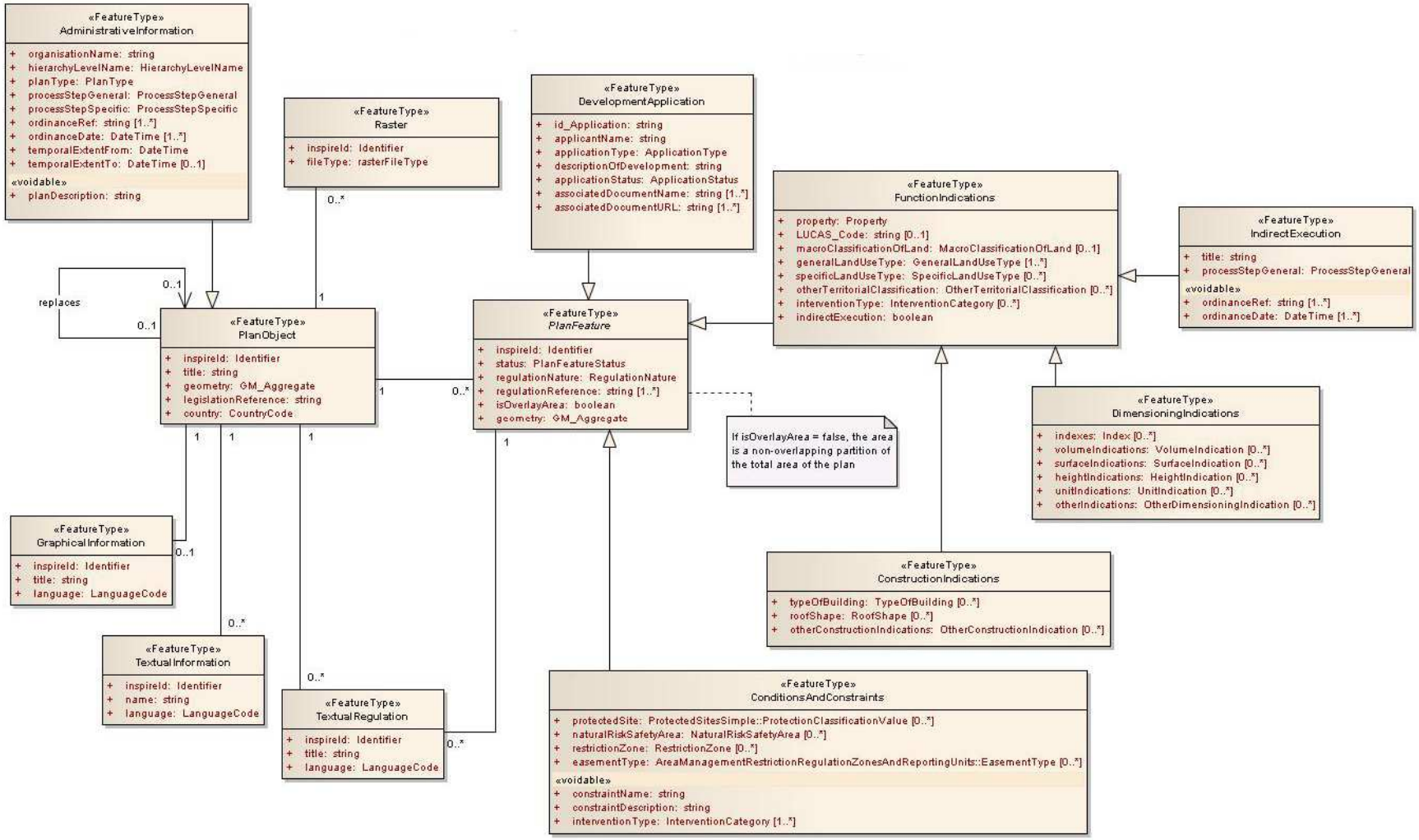
Il modello dati



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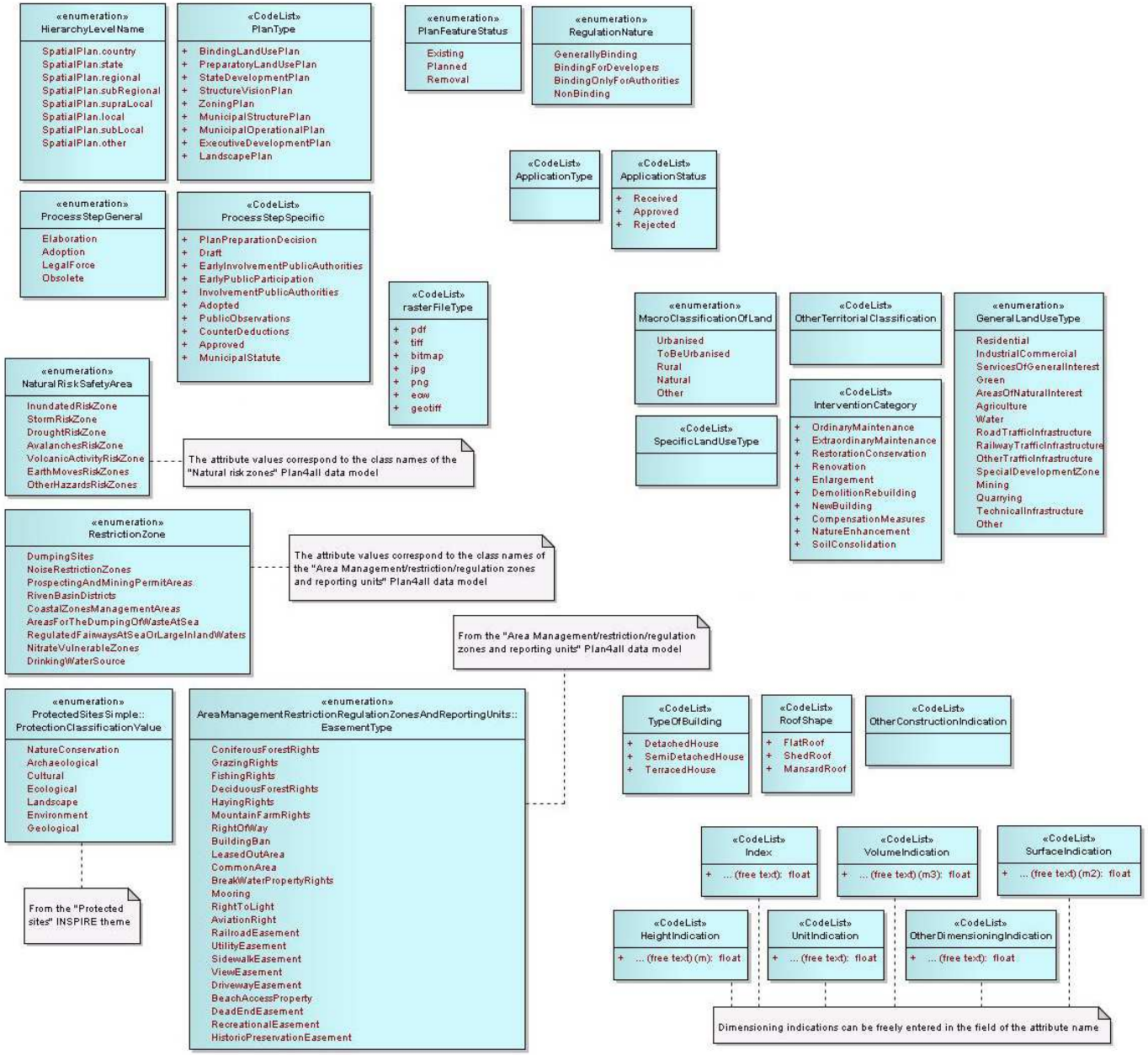
Il modello dati



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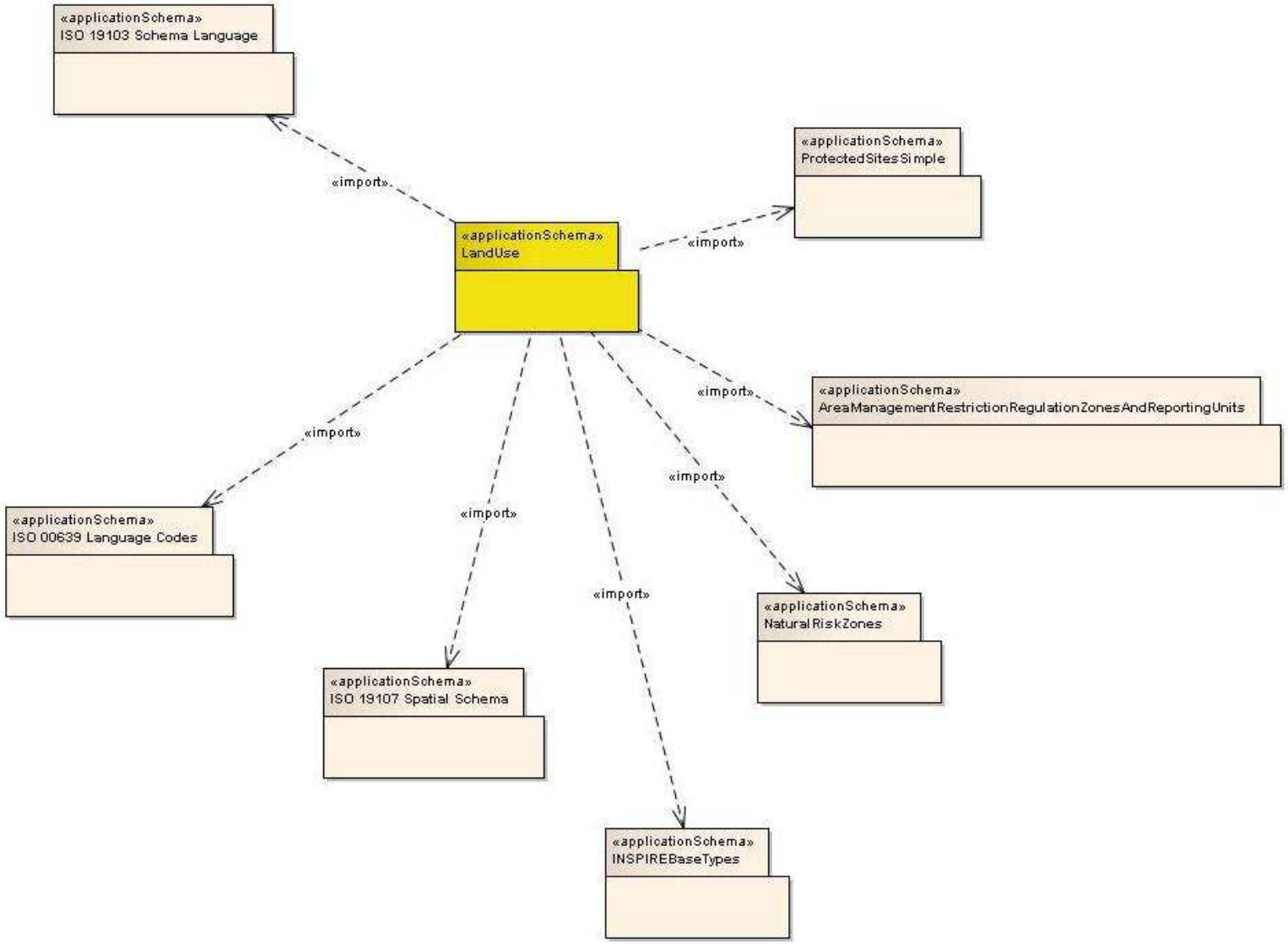
Il modello dati



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Il modello dati

Spatial object types

AdministrativeInformation	
Subtype of:	PlanObject
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:	HierarchyLevelName
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:	ProcessStepGeneral
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:	ProcessStepSpecific
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

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: HavingRights	
Value: MountainFarmRights	
Value: RightOfWay	
Value: BuildingBan	
Value: LeasedOutArea	
Value: CommonArea	

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Ayuntamiento de Gijón

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